



An-Najah National University

Faculty of Engineering and Information Technology

Computer Engineering Department

Graduation Project 1



HopeBridge

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2025/2026

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Acknowledgment

We would like to express our sincere gratitude to everyone who supported us throughout the development of the **HopeBridge** platform.

We are deeply thankful to our project supervisors, **Dr. Emad Natsheh** and **Dr. Luai Malhis**, for their continuous guidance, valuable feedback, and academic support throughout all stages of this project. Their expertise and encouragement played a crucial role in shaping the direction and quality of our work.

We are proud to present **HopeBridge** as a social support platform designed to serve people with special needs and their families in Palestine. The project aims to enhance accessibility, healthcare services, community integration, and overall quality of life through the effective use of modern technology.

We would also like to express our sincere appreciation to our families and friends for their patience, motivation, and moral support throughout this challenging and rewarding journey.

Finally, we extend our gratitude to everyone who contributed with ideas, feedback, and encouragement, helping us build a platform that genuinely seeks to serve and empower our community.

Abstract

HopeBridge is an integrated digital platform designed to support people with special needs and their families by bridging the gap between healthcare, social services, and community support in Palestine. The platform brings together multiple user roles, including individuals with special needs, parents, volunteers, specialists, centers, companies, and system administrators, within a unified and accessible environment.

The system provides a wide range of services such as specialist appointment booking, volunteer assistance requests, accessible places discovery, events management, job opportunities, real-time chat, and smart notification systems. Each user role is supported through a dedicated dashboard that offers functionalities tailored to its specific needs, ensuring ease of use and effective interaction across the platform.

In addition to these services, HopeBridge integrates an AI-powered training system designed to support people with special needs and parents in learning and practicing sign language. The AI system analyzes hand and finger shapes from sign language gestures and translates them into

corresponding alphabetical characters, providing an interactive and educational learning experience. This feature is also made available to volunteers who wish to learn or improve their sign language skills, enhancing communication and inclusion within the community.

HopeBridge focuses on improving accessibility, service coordination, and communication by leveraging modern technologies such as artificial intelligence, real-time data handling, geolocation services, and role-based access control. The platform also supports multilingual interfaces to enhance usability for a wider range of users.

The system is developed using MongoDB as the database, Node.js with Express.js for the backend services, and Flutter for the mobile application, providing a scalable, secure, and high-performance cross-platform solution. Through HopeBridge, the project aims to enhance the quality of life for people with special needs and promote stronger community integration through technology-driven solutions.

Introduction

In recent years, digital technologies have played a vital role in improving healthcare, social services, and community support systems. These technologies provide innovative solutions that enhance accessibility, efficiency, and communication, especially for vulnerable groups such as people with special needs and their families. However, despite this technological progress, many communities still face challenges in accessing integrated and well-organized support services.

In Palestine, people with special needs often encounter difficulties in finding suitable specialists, accessing rehabilitation and training services, communicating effectively with service providers, and receiving timely social and volunteer support. These challenges are further intensified by the lack of a unified digital platform that connects individuals with special needs, parents, volunteers, specialists, centers, and organizations in one coherent system. As a result, services are often fragmented, communication is inefficient, and families experience increased physical, emotional, and financial burdens.

HopeBridge is introduced as an integrated digital platform that aims to address these challenges by creating a centralized ecosystem for support, healthcare, and community engagement. The platform leverages modern technologies to connect all stakeholders involved in supporting people with special needs, providing them with accessible tools for communication, service coordination, and information sharing.

By combining healthcare services, volunteer coordination, accessible places discovery, training tools, and AI-powered learning systems within a single platform, HopeBridge seeks to bridge the gap between individuals with special needs and the resources available to them. The project emphasizes inclusivity, accessibility, and social integration, with the ultimate goal of improving quality of life and promoting a more supportive and connected community.

Statement of the Problem

People with special needs and their families face numerous challenges in accessing healthcare, social support, and community services. In many cases, these services are provided through disconnected systems that lack proper coordination, making it difficult for users to find suitable resources efficiently. Families often struggle with managing appointments, locating accessible facilities, requesting volunteer assistance, and communicating effectively with specialists and service providers.

In Palestine, these challenges are more significant due to limited digital infrastructure, scarcity of specialized resources, and the absence of a centralized platform that integrates all relevant services. The lack of unified systems results in fragmented information, inefficient communication, and delays in receiving essential support. Additionally, opportunities for social inclusion, employment, and skill development for people with special needs remain limited.

Another critical issue is the communication barrier between people with hearing or speech impairments and the surrounding community. The limited availability of accessible training tools for sign language learning restricts effective interaction between individuals with special needs, their families, and volunteers. This gap reduces independence and social participation for people with disabilities.

Furthermore, volunteers and service providers often lack structured tools to coordinate their efforts, track requests, and improve their skills through training. The absence of intelligent and interactive learning systems also limits the ability of volunteers and families to develop essential communication skills, such as sign language, in an engaging and practical manner.

These problems highlight the urgent need for an integrated digital solution that unifies healthcare services, volunteer coordination, accessibility resources, and intelligent training tools within a single platform. Addressing these challenges is essential to improve service quality, enhance communication, and promote social inclusion for people with special needs and their families.

Objectives of the Work

The main objective of the HopeBridge project is to develop an integrated digital platform that supports people with special needs and their families by connecting healthcare, social services, and community support within a unified system. The project aims to improve accessibility, communication, and service coordination through the use of modern technologies.

Primary Objectives

- To design and develop a centralized platform that connects people with special needs, parents, volunteers, specialists, centers, and organizations.
- To facilitate specialist appointment booking and management in an organized and efficient manner.
- To provide a structured system for requesting, managing, and tracking volunteer assistance.
- To offer a comprehensive database of accessible places and services to support daily activities and mobility.
- To enhance communication through real-time chat and notification systems.
- To integrate an AI-powered training system that supports learning and practicing sign language for people with special needs, parents, and volunteers.

Secondary Objectives

- To promote social inclusion and community engagement for people with special needs.
- To improve coordination between service providers, volunteers, and families.
- To support skill development and training through intelligent and interactive tools.
- To provide analytical and monitoring tools for centers and administrators to improve service quality.
- To ensure data security, privacy, and role-based access control across the platform.
- To design a scalable and extensible system that can support future enhancements and additional services.

Scope of the Work

The scope of the HopeBridge project defines the technical, functional, and geographic boundaries within which the system is designed and developed. This scope ensures clarity in the system's capabilities and limitations while focusing on delivering the core objectives of the project.

Technical Scope

- Development of a mobile application using **Flutter** to ensure cross-platform compatibility and accessibility.
- Implementation of a backend system using **Node.js** and **Express.js** following RESTful API architecture.
- Design and integration of a **MongoDB** database to store and manage user, service, and system data.
- Integration of real-time communication features such as chat and notifications.
- Implementation of an **AI-powered sign language training system** for gesture recognition and character translation.
- Use of geolocation services to support accessible places discovery and location-based services.
- Implementation of secure authentication and authorization mechanisms using role-based access control.

Functional Scope

- User registration and authentication with role-based dashboards for all user types.
- Management of specialist profiles and appointment booking and tracking.
- Volunteer request creation, acceptance, and management.
- Discovery and management of accessible places and services.
- Events and job opportunities management for inclusive community participation.
- Real-time chat and notification system between users and service providers.

- AI-based sign language training module for learning and practice.

Geographic Scope

- Initial deployment of the HopeBridge platform within **Palestine**.
- System design that supports scalability and potential expansion to additional regions in the future.

Significance of the Work

The HopeBridge project holds significant importance due to its social, technical, and educational impact on the community. By addressing critical challenges faced by people with special needs and their families, the project contributes to improving quality of life and promoting inclusion through technology.

Social Impact

- Enhancing the quality of life for people with special needs by improving access to healthcare, social, and community support services.
- Reducing communication barriers between individuals with special needs, their families, volunteers, and specialists.
- Promoting social inclusion and community engagement through events, volunteering, and employment opportunities.
- Supporting families by reducing the time and effort required to locate and manage essential services.

Technical Impact

- Demonstrating the effective use of modern technologies such as mobile applications, cloud-based systems, and real-time communication.
- Integrating an AI-powered sign language training system to support inclusive and accessible learning.
- Providing a scalable and modular system architecture that can be extended with future features and services.

- Applying secure system design principles including role-based access control and data protection.

Educational Value

- Providing a real-world application of software engineering concepts and full-stack development.
- Enhancing students' skills in system analysis, design, implementation, and testing.
- Offering practical experience in integrating artificial intelligence into social and healthcare-oriented systems.
- Demonstrating the importance of technology-driven solutions for addressing societal challenges.

Constraints, Standards/Codes, and Earlier Coursework

The development of the HopeBridge platform was influenced by several constraints and guided by recognized technical standards and academic foundations. Identifying these factors is essential to understanding the project's design decisions, limitations, and implementation approach.

Constraints and Limitations

The HopeBridge project faced a number of constraints during its development, including technical, financial, regulatory, data-related, and time-related limitations.

Technical Constraints

- Limited and unstable internet connectivity in some areas, which may affect real-time services such as chat and notifications.
- The need to support a wide range of mobile devices with different hardware capabilities.
- Performance considerations when integrating AI-based hand gesture recognition within a mobile application.

- Ensuring system scalability while maintaining acceptable response times.

Data and Accessibility Constraints

- Limited availability of reliable, accurate, and up-to-date data related to accessible places and services suitable for people with special needs.
- Absence of standardized databases that classify locations based on the types of disabilities they support.
- Difficulty in verifying accessibility details such as entrances, mobility support, restrooms, and assistive facilities.
- Dependence on manual data entry, user submissions, and administrative validation to populate accessible places within the platform.
- Variations in accessibility standards across different locations, which makes it challenging to provide consistent and comprehensive accessibility information.

These constraints required the system to be designed with flexibility, validation mechanisms, and future scalability to allow continuous improvement of accessibility-related data.

Financial Constraints

- Limited budget allocated for cloud hosting, database services, and deployment infrastructure.
- Constraints on using paid third-party APIs and AI services, leading to reliance on open-source tools and custom implementations.
- Optimization of system resources to reduce operational costs.

Time Constraints

- Limited time frame for system analysis, design, development, and testing due to academic deadlines.
- Prioritization of core functionalities over advanced or optional features.

- Limited opportunity for large-scale user testing and long-term performance evaluation.

Standards and Codes

The HopeBridge platform follows widely accepted software development standards and best practices to ensure quality, security, and maintainability.

Backend – Node.js & Express.js

- RESTful API design principles using appropriate HTTP methods and status codes.
- Modular architecture with middleware for authentication, authorization, and request validation.
- Secure handling of environment variables and sensitive configuration data.

Database – MongoDB

- Use of **Mongoose ODM** for schema definition, validation, and data modeling.
- Document-oriented data modeling to support flexible and evolving requirements.
- Indexing strategies to improve query performance.
- Secure database access and connection management.
- Integration with **Cloudinary** as a cloud-based media storage service for uploading, storing, and managing images and files (such as profile images and documents), ensuring optimized media delivery and reducing server storage overhead.

Frontend – Flutter

- Development of a cross-platform application that supports both **mobile (Android and iOS)** and **web platforms** using a shared and unified codebase.
- Utilization of **Flutter** to ensure consistent user experience, design, and functionality across different platforms.
- Support for role-based dashboards tailored for different user types such as people with

special needs, parents, volunteers, specialists, centers, and administrators.

- Integration of accessibility-focused UI components to improve usability for users with special needs.
- Separation of presentation, business logic, and data handling to enhance maintainability and scalability.
- Support for multilingual interfaces to improve accessibility and inclusiveness.

Artificial Intelligence Standards

- Use of deep learning and computer vision techniques for Arabic Sign Language recognition.
- Application of standardized image preprocessing to ensure accuracy and consistency.
- Deployment of the trained model using TensorFlow Lite for efficient inference.
- Server-based AI inference to ensure reliable processing and smooth integration with the mobile application.
- Ethical and assistive use of AI to support accessibility and inclusion for users with hearing impairments.

Methodology

The development of the HopeBridge platform followed a structured and iterative software development methodology to ensure system reliability, usability, and scalability. The adopted approach combines analysis, design, implementation, and testing phases, allowing continuous evaluation and improvement throughout the project lifecycle.

The project began with a detailed requirements analysis phase, where the needs of people with special needs, families, volunteers, specialists, and centers were identified. This phase focused on understanding functional requirements, accessibility considerations, and system constraints to ensure that the platform addresses real-world challenges effectively.

Following the analysis phase, the system design phase was conducted to define the overall architecture, database structure, user roles, and interaction workflows. Emphasis was placed on modular design, role-based access control, and scalability to support future enhancements. User interface designs were created with a focus on simplicity, accessibility, and ease of navigation.

The implementation phase involved developing the backend services using Node.js and Express.js, integrating the MongoDB database, and building the mobile application using Flutter. The AI-powered sign language training module was implemented as an assistive feature to support learning and communication. Continuous integration between system components ensured consistent functionality across all modules.

Testing and validation were carried out throughout the development process to verify system functionality, performance, and security. Unit testing, API testing, and manual user testing were performed to identify and resolve issues early. Feedback from testing was used to refine features and improve system usability.

Tools, Methods, and Programming Languages

Tools

The following tools were used during the development of the HopeBridge platform:

- **Visual Studio Code:** Primary development environment for backend and frontend coding.
- **Git & GitHub:** Version control and collaborative development.
- **Postman:** Testing and validation of RESTful APIs.
- **MongoDB Compass:** Database visualization and management.
- **Flutter SDK:** Development framework for building the mobile application.
- **Node.js Runtime:** Server-side application execution.
- **Shared Preferences & Local Storage:** Managing local data within the mobile application.

Programming Languages and Frameworks

Backend Technologies

- **JavaScript (Node.js):** Server-side logic and API development.
- **Express.js:** Web framework for building RESTful APIs.
- **MongoDB & Mongoose:** NoSQL database and object data modeling.

Frontend Technologies

- **Dart:** Programming language for Flutter development.
- **Flutter:** Cross-platform mobile application framework.
- **Material Design:** UI components and design guidelines.

Artificial Intelligence Technologies

- **Computer Vision Techniques:** Used to process camera images, extract visual features of hand gestures, and prepare input data for recognition through image preprocessing steps such as resizing, grayscale conversion, and normalization.
- **Deep Learning (Convolutional Neural Networks – CNN):** A CNN-based model was trained to recognize Arabic Sign Language letters from static hand gesture images, enabling accurate classification and real-time prediction.
- **TensorFlow & TensorFlow Lite:** TensorFlow was used for model training and evaluation, while TensorFlow Lite was employed to optimize the trained model for efficient inference suitable for mobile environments.
- **AI Inference Server:** A server-based inference layer built using Python and Flask handles image preprocessing, model inference, and prediction delivery, ensuring smooth integration between the AI model and the Flutter mobile application.

Results and Discussion

This chapter presents the implementation results of the HopeBridge platform and highlights its main features across both web and mobile applications. It demonstrates how the developed system addresses the project objectives and the challenges identified earlier.

The chapter explains the common functionalities available to all users, such as authentication, dashboards, navigation, and communication tools, in addition to the specialized features provided for each user role. It also discusses the integration of the AI-powered sign language training system and its role in enhancing communication and inclusivity.

Finally, this chapter evaluates the effectiveness of the implemented features, discusses development challenges, and reflects on the overall impact of the system in supporting people with special needs and their families.

Mobile Features

Common Features Among Users

Authentication System

The authentication system is responsible for verifying user identity and controlling access to the platform based on user roles.

Sign In Page

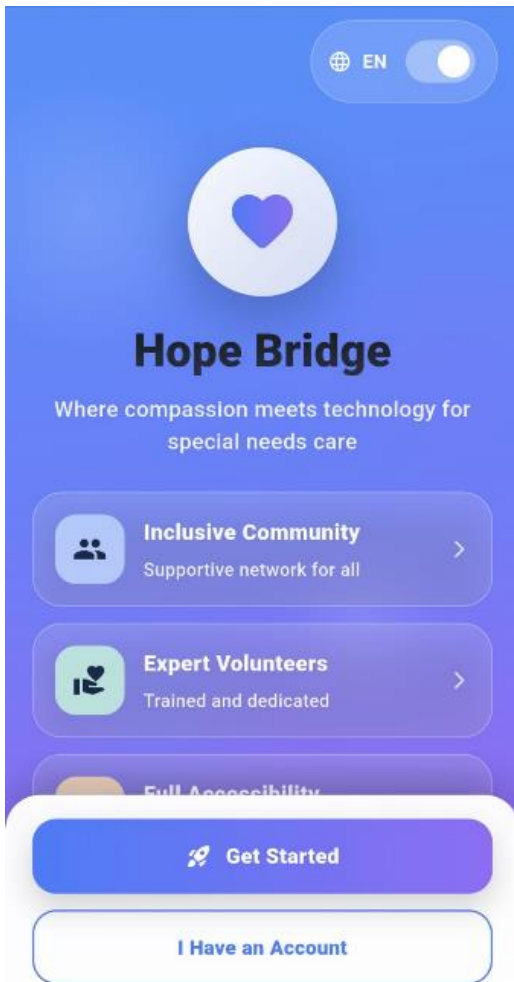
Target Users: All system users (People with Special Needs, Parents, Volunteers, Centers, Specialists, Companies, Administrators, and Place Admins)

The Sign In page serves as the main authentication entry point for the HopeBridge platform. It allows registered users to securely access the system using their email address and password while enforcing role-based access control and administrative approval rules.

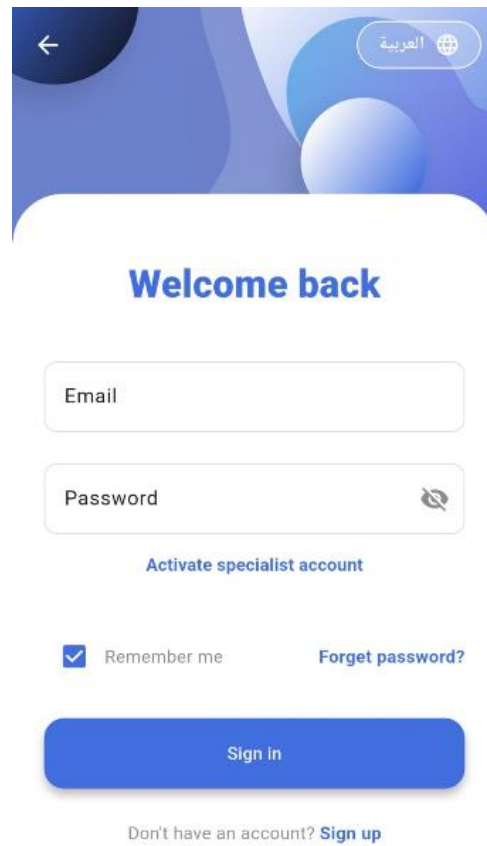
When a user submits their credentials, the system validates the email and securely verifies the password against the stored hashed value in the database. If authentication is successful, the system loads the user's profile data based on their role to ensure that the appropriate information is available immediately after login.

For specific user types such as **Companies, Centers, and Volunteers**, an administrative approval mechanism is enforced. Depending on the account status, users may be granted full access, redirected to a waiting-for-approval screen, asked to complete missing documents, or denied access in case of blocked or permanently rejected accounts.

If the account is eligible to proceed, the system generates a **JSON Web Token (JWT)** containing the user ID and role. This token is used to authorize all subsequent protected requests within the platform. Upon successful sign-in, the user is redirected to the appropriate dashboard based on their role and access state.



1 welcome page

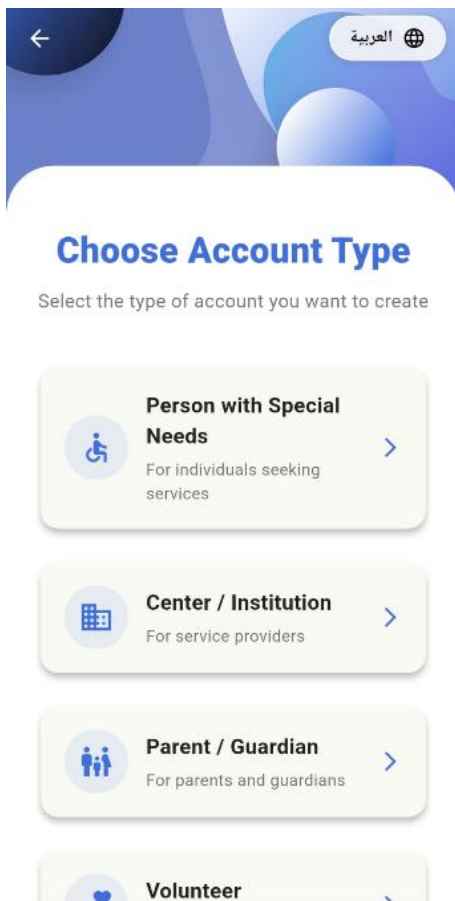


2 Sign In page

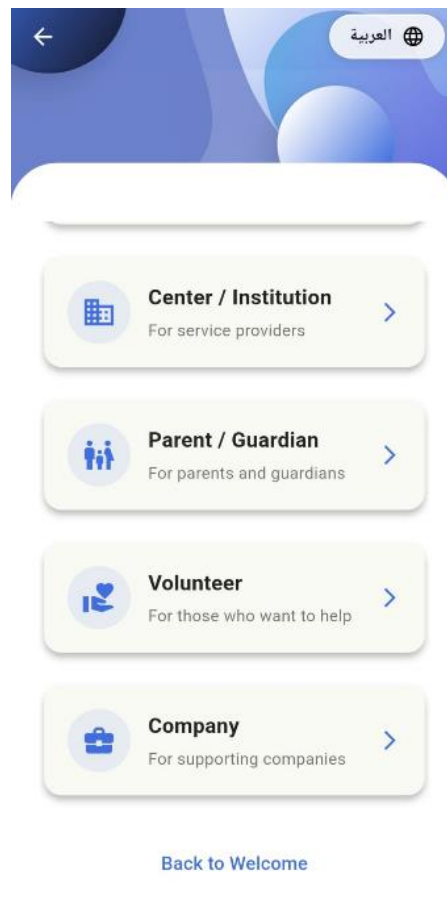
Registration (Multi-step)

The registration process in HopeBridge is role-based, where each user type is required to provide specific information according to their role within the platform. People with special needs and parents submit personal and care-related details, while volunteers provide identity and consent information. Centers and companies are required to enter official institutional or business information and upload supporting documents.

Before completing the registration process, all users must verify their email address through a secure email verification mechanism to ensure account authenticity and prevent unauthorized access.



3choose user type page1



4choose user type page2

- Special needs sign up

← العربية

Special Needs Registration

Step 1 of 6
Account

✉

Email * 🔊

Enter your email

Email is required
We will send a verification code to this email

Password * 🔊

Enter password

Password is required

Confirm Password * 🔊

Confirm your password

Please confirm password

Next

5 sign up as special needs page 1

← العربية

✓

Verify your email

Enter the 6-digit code sent to your email.

2 6 7 0 1 0 |

Didn't receive it? [Resend](#)

Cancel Verify


Next

6 sign up as special needs page 2 (email verification)


← العربية

Special Needs Registration


Step 2 of 6
Basic info

Full Name * 

وائل أحمد محمود


Phone Number * 

0569853652


Birth Date * 

2010-01-25

You must be at least 16 years old

Gender * 

Male

National ID * 


Back Next

7sign up as special needs page 3

← العربية


Special Needs Registration

Step 2 of 6
Basic info


Birth Date * 

1982-01-25


Age requirement satisfied

Gender * 

Male

National ID * 

403252220

Identity Document * 

19114_2026-121.jpg

Upload document

Accepted: images or PDF (max 15 MB)

Back Next

8sign up as special needs page4

← العربية

Special Needs Registration

Step 3 of 6
Disability info

Disability Information

Disability Type * 🔊

Visual Impairment

Disability Level * 🔊

Mild

Moderate

Severe

Hearing Aid

White Cane

Communication Device

Back Next

9 sign up as special needs page 5

← العربية

Special Needs Registration

Step 3 of 6
Disability info

visual impairment

Disability Level * 🔊

Mild

Assistive Devices 🔊

Wheelchair

Hearing Aid

White Cane

Communication Device

Prosthetic Device

Other

Back Next

10 sign up as special needs page 6

← العربية

Special Needs Registration

Step 4 of 6
Medical info

Medical Information

Medical Conditions

Any other medical conditions

Medications

Current medications

Allergies

Any allergies

Back Next

11 sign up as special needs page 7

← العربية

Special Needs Registration

Step 5 of 6
Emergency contact

Emergency Contact

Emergency Contact Name

Full name of emergency contact

Emergency Phone

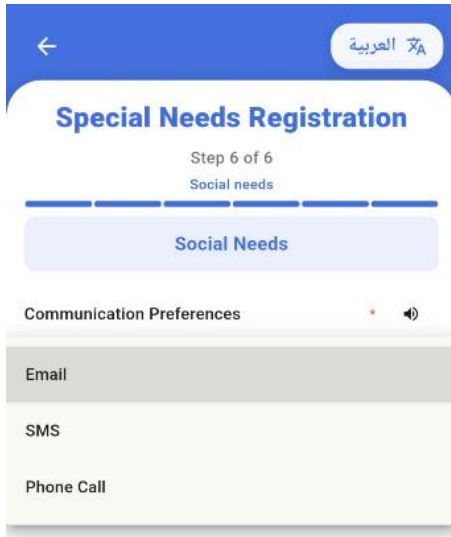
Phone number of emergency contact

Relationship

e.g., Parent, Sibling

Back Next

12 sign up as special needs page 8



13 sign up as special needs page 9

- Parent sign up
There is a verification email like special needs

14 sign up as parent page1

15 sign up as parent page2

← العربية

Parent/Guardian Registration

Step 2 of 6
Basic info

Parent Information

Full Name *

rami ahmad

Phone Number *

0569853258

National ID *

567876778

Identity Document *

19116_2026-121.jpg

Upload document

Accepted: images or PDF (max 15 MB)

Birth Date *

1993-01-21

Back Next

16 sign up as parent page3

← العربية

Parent/Guardian Registration

Step 2 of 6
Basic info

Phone Number *

0569853258

National ID *

567876778

Identity Document *

19116_2026-121.jpg

Upload document

Accepted: images or PDF (max 15 MB)

Birth Date *

1993-01-21

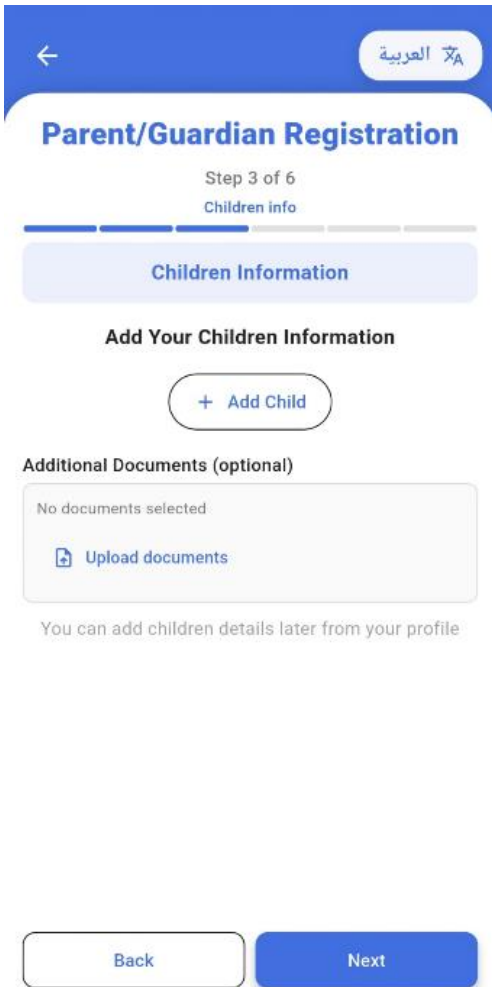
Age requirement satisfied

Gender *

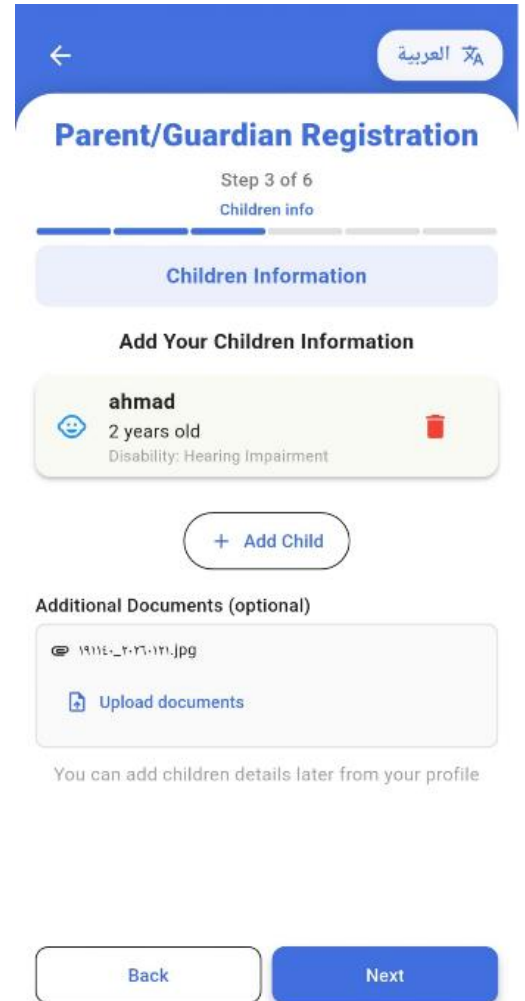
Male

Back Next

17 sign up as parent page4



18 sign up as parent page 5



19 sign up as parent page 6

← العربية

Parent/Guardian Registration

Step 4 of 6
Contact info

Contact Information

Address *

Enter your full address

City *

Enter your city

Country *

Enter your country

Back Next

20sign up as parent page7

← العربية

Parent/Guardian Registration

Step 6 of 6
Consents

Consents & Settings

I agree to the processing of my personal data
(Required)

I agree to be contacted for support and updates
(Required)

I want to receive notifications about new services
(Required)

By completing registration, you agree to our Terms of Service and Privacy Policy

Back Finish

21sign up as parent page8

- Center sign up

The screenshot shows the first step of a four-step registration process. The header is blue with a back arrow on the left and the text 'العربية' with a flag icon on the right. Below the header, the title 'Center Registration' is centered, followed by 'Step 1 of 4' and 'Account'. A progress bar shows the first step is active. A light blue button labeled 'Create Account' is positioned below the progress bar. In the center, there is a circular icon containing a blue medical bag. Below the icon are three input fields: 'Email *' with the placeholder 'Enter your email', 'Password *' with the placeholder 'Enter password' and a toggle icon, and 'Confirm Password *' with the placeholder 'Confirm your password' and a toggle icon. At the bottom, there is a line of text: 'By signing up, you agree to our Terms and Privacy Policy' and a large blue button labeled 'Next'.

22center sign up page1

The screenshot shows the second step of a four-step registration process. The header is blue with a back arrow on the left and the text 'العربية' with a flag icon on the right. Below the header, the title 'Center Registration' is centered, followed by 'Step 2 of 4' and 'Basic info'. A progress bar shows the second step is active. A light blue button labeled 'Basic Information' is positioned below the progress bar. Below this are four input fields: 'Center Name *' with the placeholder 'Enter center name', 'Responsible Person Name *' with the placeholder 'Enter full name', 'Phone Number *' with the placeholder 'Enter phone number', and 'Country / City *' with the placeholder 'Enter location'. At the bottom, there are two buttons: a white button with a blue border labeled 'Back' and a solid blue button labeled 'Next'.

23center sign up page 2

← العربية

Center Registration

Step 3 of 4
License info

License Information

License Number *

5555

License Document *

Upload License Document

✓ ١٩١١٤_٤٠٦٦٠١١١.jpg

Back Next

25center sign up page3

← العربية

Center Registration

Step 4 of 4
Agreement

Agreement

I agree to the processing of Personal data

By checking this box, you agree to our terms and conditions regarding the processing of personal data.

Back Finish

24center sign up page4

- Volunteer sign up

26volunteer sign up page1

27volunteer sign up page2

← العربية

Volunteer Registration

Step 3 of 5
Skills & experience

Skills & Experience

Skills

- Teaching
- Therapy
- Counseling
- First Aid
- Sign Language
- Child Care
- Sports
- Art & Crafts
- Music

Back Next

28volunteer sign up page3

← العربية

Volunteer Registration

Step 3 of 5
Skills & experience

Other

Education Level

High School Diploma

Occupation

Enter your occupation

Years of Experience

Number of years

None

Basic

Intermediate

Advanced

Professional

Back Next

29volunteer sign up page4

← العربية

Volunteer Registration

Step 4 of 5
Personal services

Personal Services

I accept personal requests from families/centers

I provide paid services (in addition to volunteering)

Back Next

31volunteer sign up page5

← العربية

Volunteer Registration

Step 4 of 5
Personal services

I accept personal requests from families/centers

Types of personal services you can provide

Daily Companion

Mobility Support

Child Care

Communication Support

Sign Language Support

Therapy Support

Study Assistance

General Help

Other

Back Next

30volunteer sign up page6

← العربية

Volunteer Registration

Step 4 of 5
Personal services

- Child Care
- Communication Support
- Sign Language Support
- Therapy Support
- Study Assistance
- General Help
- Other

I provide paid services (in addition to volunteering)

Service rate (per hour/session)

Enter approximate rate

Back Next

32volunteer sign up page7

← العربية

Volunteer Registration

Step 4 of 5
Personal services

- Child Care
- Communication Support
- Sign Language Support
- Therapy Support
- Study Assistance
- General Help
- Other

I provide paid services (in addition to volunteering)

Service rate (per hour/session)

100

Back Next

33volunteer sign up page 8

العربية

Volunteer Registration

Step 5 of 5
Documents & consents

Documents & Consents

Identity Document (required)

No file selected

Upload document

This document is required

University Certificate (optional)

No file selected

Upload document

Skill Verification Documents (optional)

No files selected

Upload documents

I agree to the processing of my personal data
(Required)

34volunteer sign up page 9

العربية

Volunteer Registration

Step 5 of 5
Documents & consents

This document is required

University Certificate (optional)

No file selected

Upload document

Skill Verification Documents (optional)

No files selected

Upload documents

I agree to the processing of my personal data
(Required)

I consent to background check if required
(Required)

I agree to attend training sessions If required
(Required)

35volunteer sign up page10

- Company sign up

The screenshot shows the first step of a company registration process. At the top, there is a blue header with a back arrow on the left and the text 'العربية' (Arabic) on the right. Below the header, the title 'Company Registration' is centered, followed by 'Step 1 of 6' and 'Account'. A progress bar shows the first step as active. A large blue button labeled 'Create Account' is positioned below the progress bar. In the center, there is a circular icon containing a building. Below the icon, there are three input fields: 'Email' with the placeholder 'Enter your email', 'Password' with the placeholder 'Enter password' and an eye icon, and 'Confirm Password' with the placeholder 'Confirm your password' and an eye icon. At the bottom, there is a large blue button labeled 'Next'.

36company sign up page1

The screenshot shows the second step of a company registration process. At the top, there is a blue header with a back arrow on the left and the text 'العربية' (Arabic) on the right. Below the header, the title 'Company Registration' is centered, followed by 'Step 2 of 6' and 'Company Info'. A progress bar shows the second step as active. A large blue button labeled 'Company Information' is positioned below the progress bar. Below this, there are four input fields: 'Company Name' with the placeholder 'Enter company name', 'Phone Number' with the placeholder 'Enter phone number' and a red error message 'Phone number is required' below it, 'Industry' with a dropdown menu, and 'Company Size' with a dropdown menu. At the bottom, there are two buttons: a white button labeled 'Back' and a blue button labeled 'Next'.

37company sign up page2

← العربية

Company Registration

Step 3 of 6
Location

Location

Address *

Enter full address

Address is required

City *

nablus

Country

Palestine

Back Next

38company sign up page3

← العربية

Company Registration

Step 4 of 6
Description

Company Description

Description

Describe your company and activities

This description helps special needs users understand your company.

Back Next

39company sign up page4

← العربية

Company Registration

Step 5 of 6
Accessibility

Accessibility & Support

Supported Disability Types (optional)

Visual Impairment Hearing Impairment

Physical Disability Speech Impairment

Multiple Disability Other

Accessibility Features (optional)

Wheelchair Access Sign Language Support

Accessible Bathroom Elevator

Assistive Technology Flexible Work Hours

Remote Work Option Other

These fields are optional but recommended to help match

Back Next

40company sign up page5

← العربية


Company Registration

Step 6 of 6
Documents

Documents

Company Registration Document (required)

No file selected

 Upload document

Accepted: PDF or image (max 15 MB)

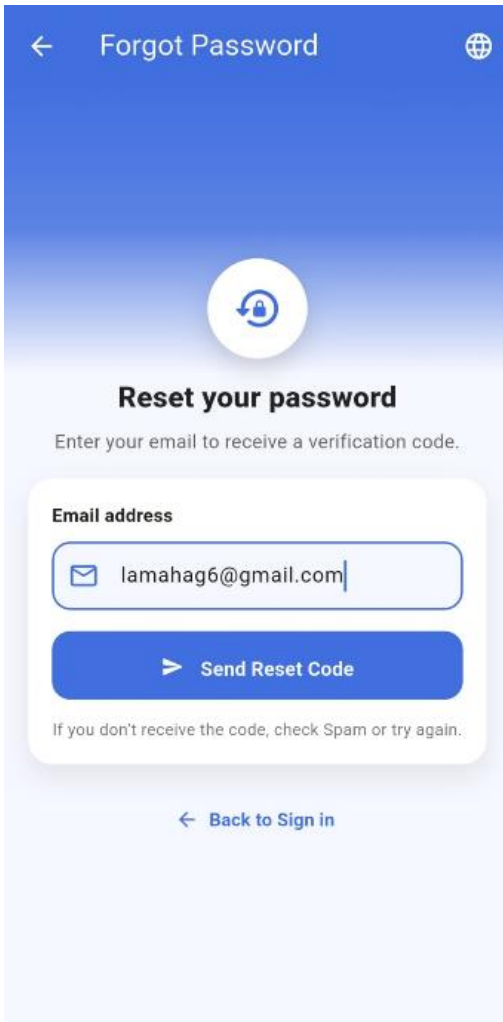
This document is required for verifying your company account.

Back Finish

41company sign up page6

Forget password

The Forget Password page enables users to securely reset their passwords using email-based verification. A time-limited reset token is sent to the registered email, allowing the user to set a new password while ensuring account security.



← Forgot Password

Reset your password

Enter your email to receive a verification code.

Email address

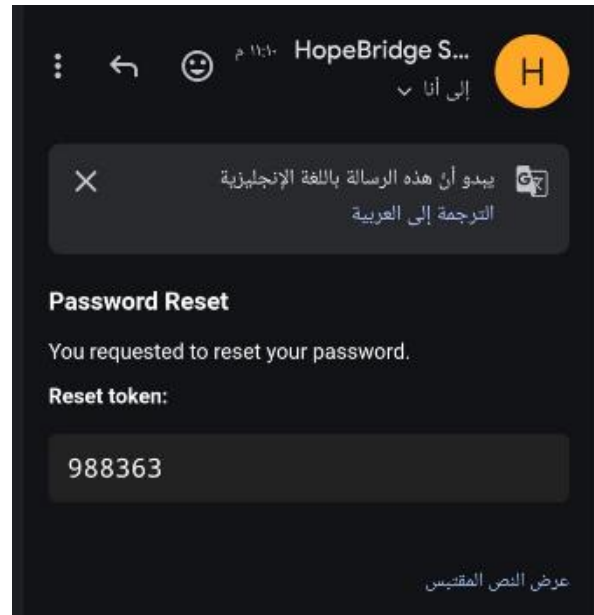
lamahag6@gmail.com

➤ Send Reset Code

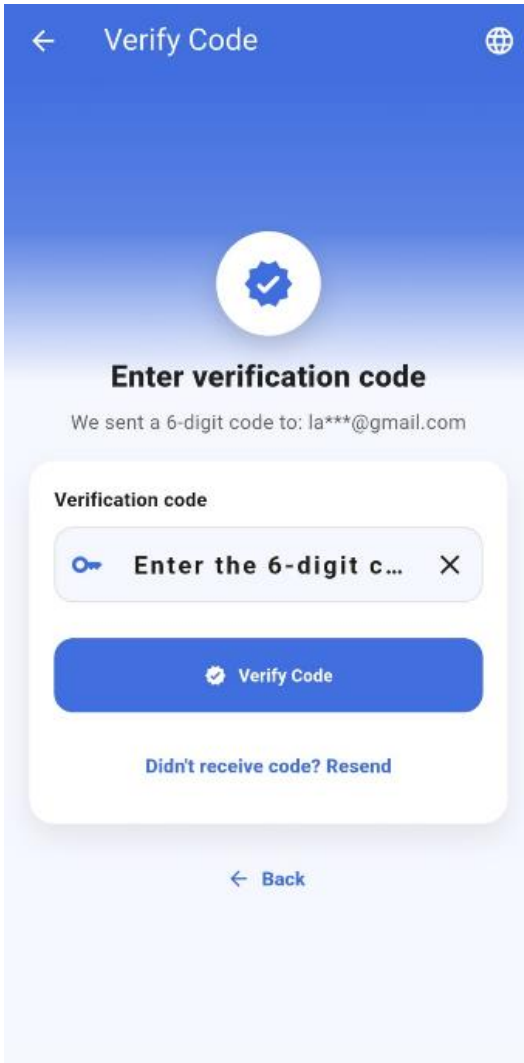
If you don't receive the code, check Spam or try again.

← Back to Sign in

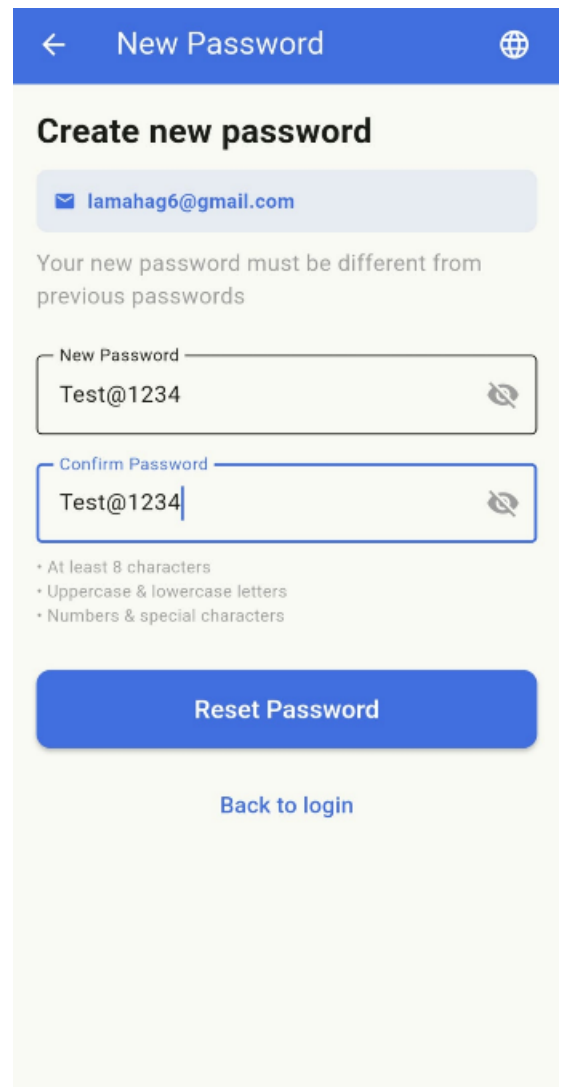
42forget password page1



43forget password page2



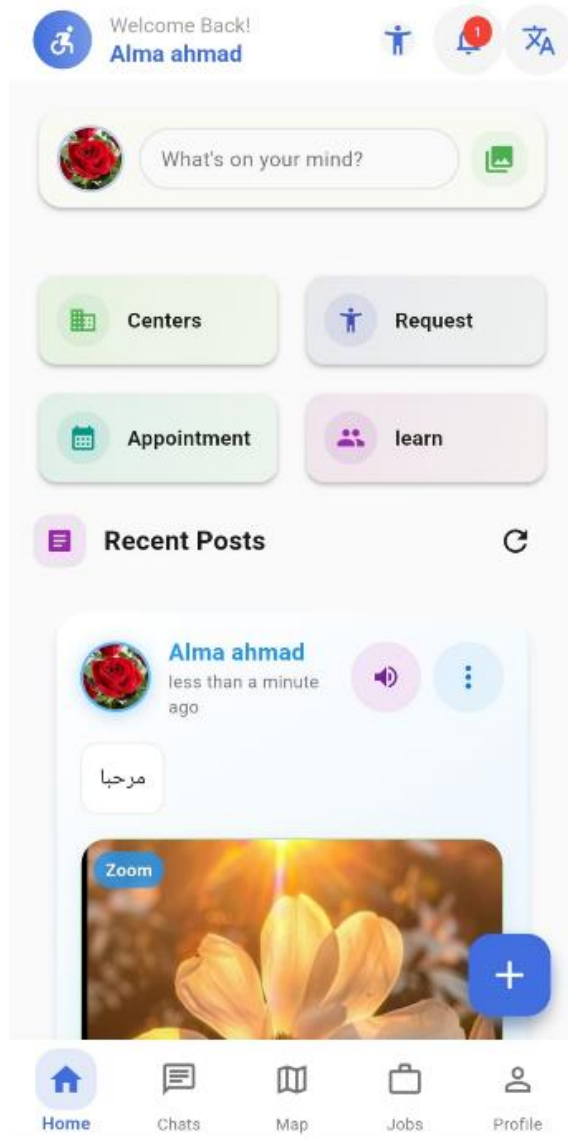
44forget password page3



45forget password page4

Special needs features

The main dashboard for people with disabilities serves as the primary entry point after logging in, providing quick access to essential services such as centers, assistance requests, appointments, and learning features. It also supports social interaction through posts and chats and offers easy navigation across the platform.



46 special needs dashboard

- Chat system
HopeBridge provides a built-in chat system that allows all users to communicate through individual and group conversations. The system supports message exchange, privacy controls, and chat customization, enhancing interaction and coordination within the platform.



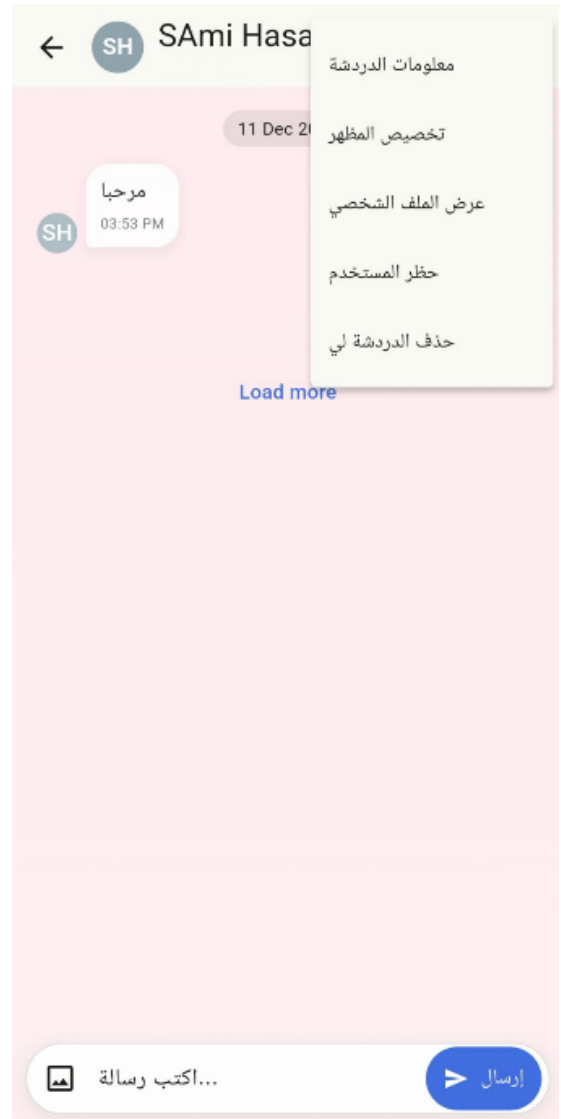
47chat system page1



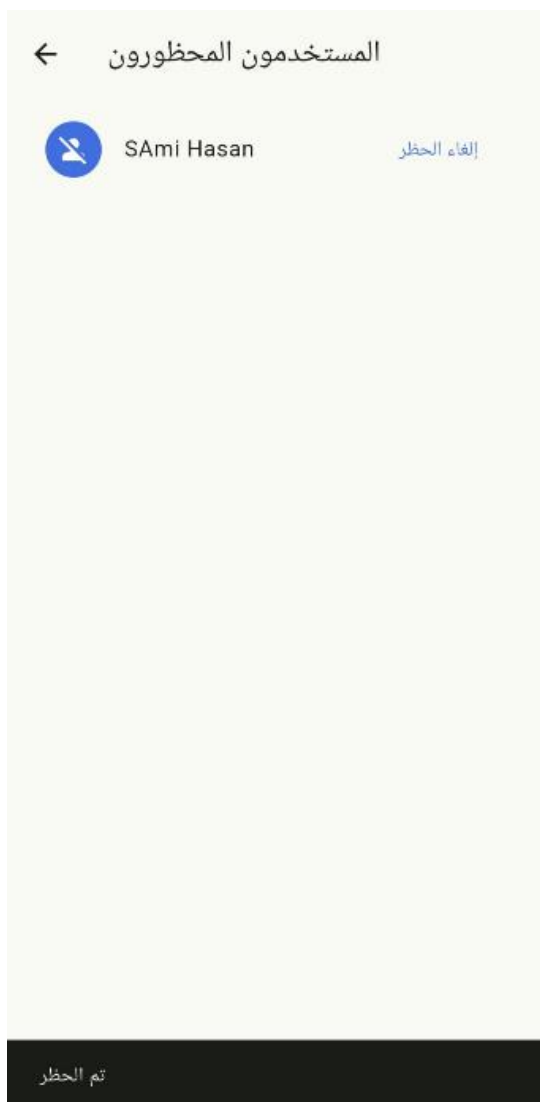
48chat system page2



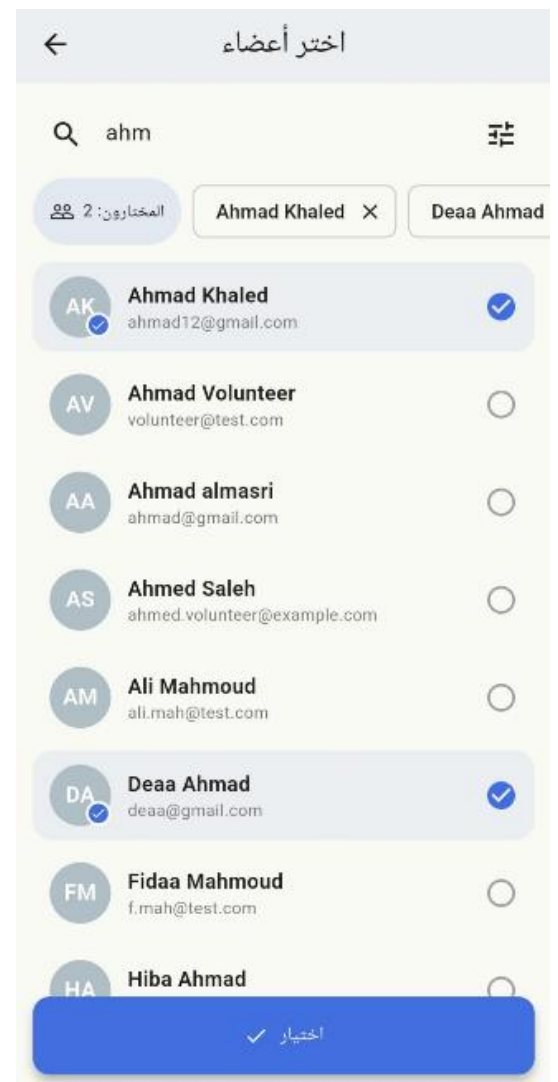
49chat system page2



50chat system page4



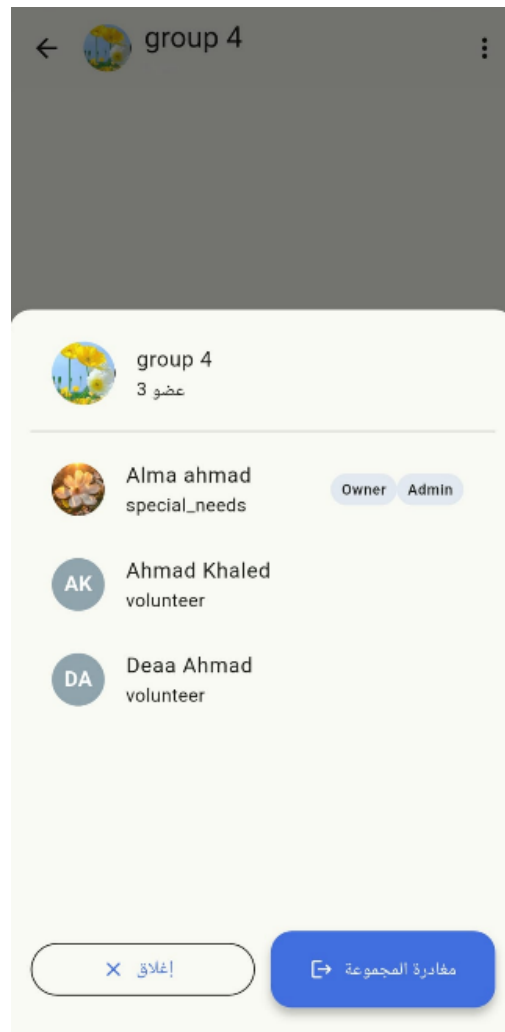
51chat system page5



52chat system (group) page6



53chat system (group) page7

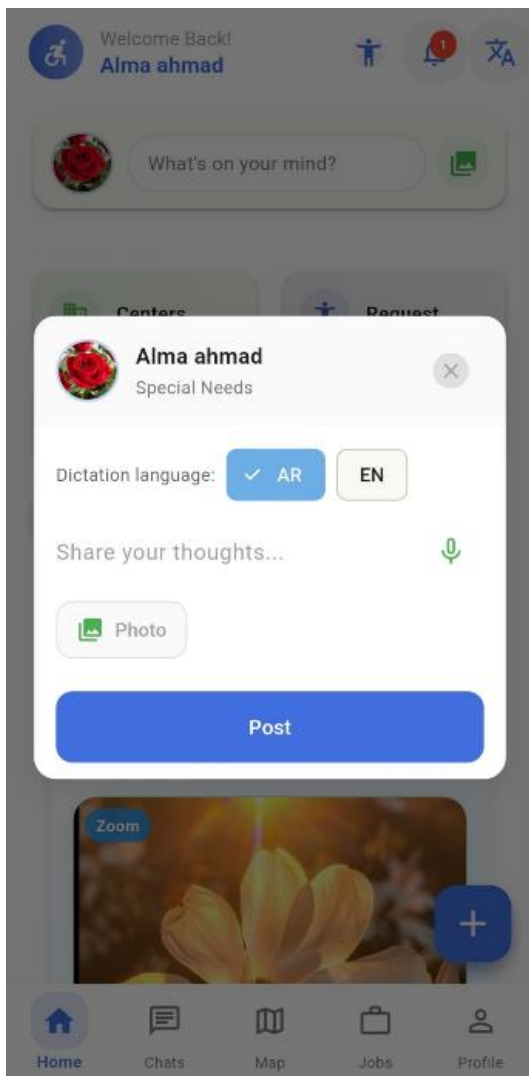


54chat system (group)page8

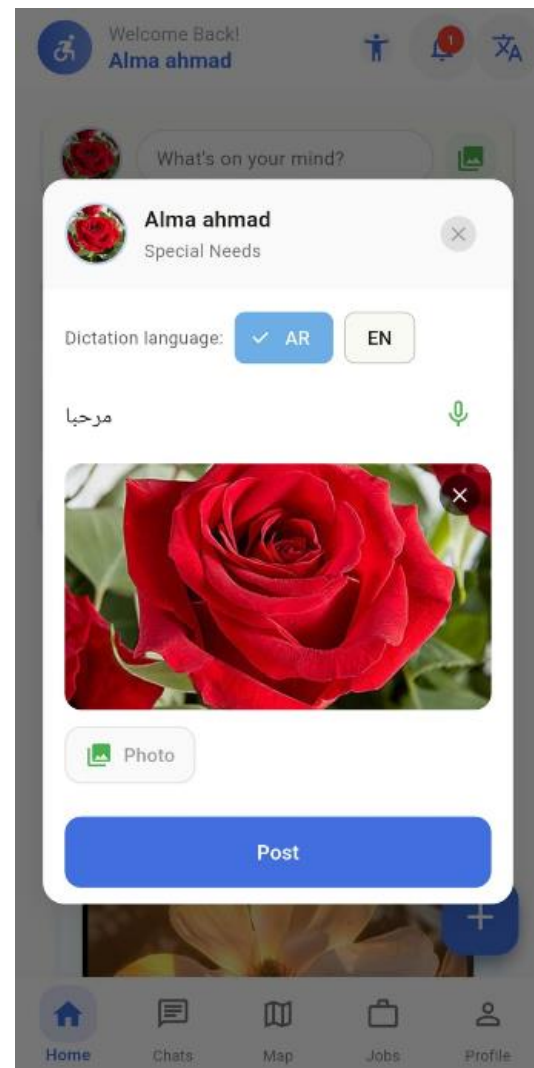
- Post system

The HopeBridge platform provides a posts system that allows users to create and edit posts, as well as interact with other posts through likes and comments. Each post can be viewed in detail, showing the post content and information about its author.

To enhance accessibility, the system also supports audio reading of posts, allowing users to listen to the post content instead of reading it, which is especially helpful for users with accessibility needs.



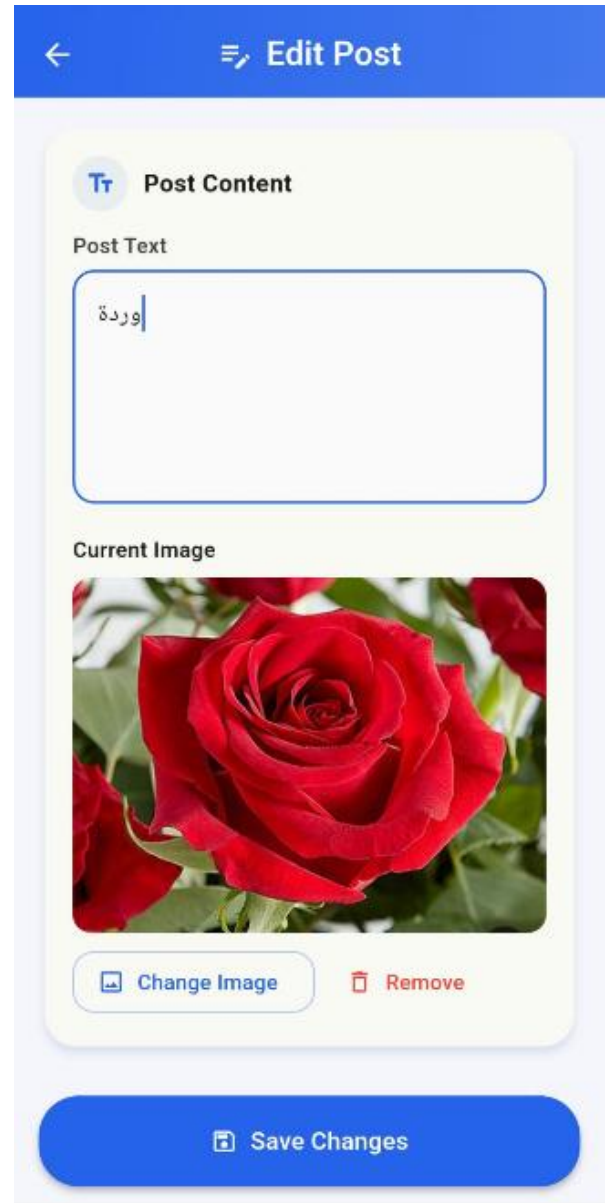
55post page1 (create post)



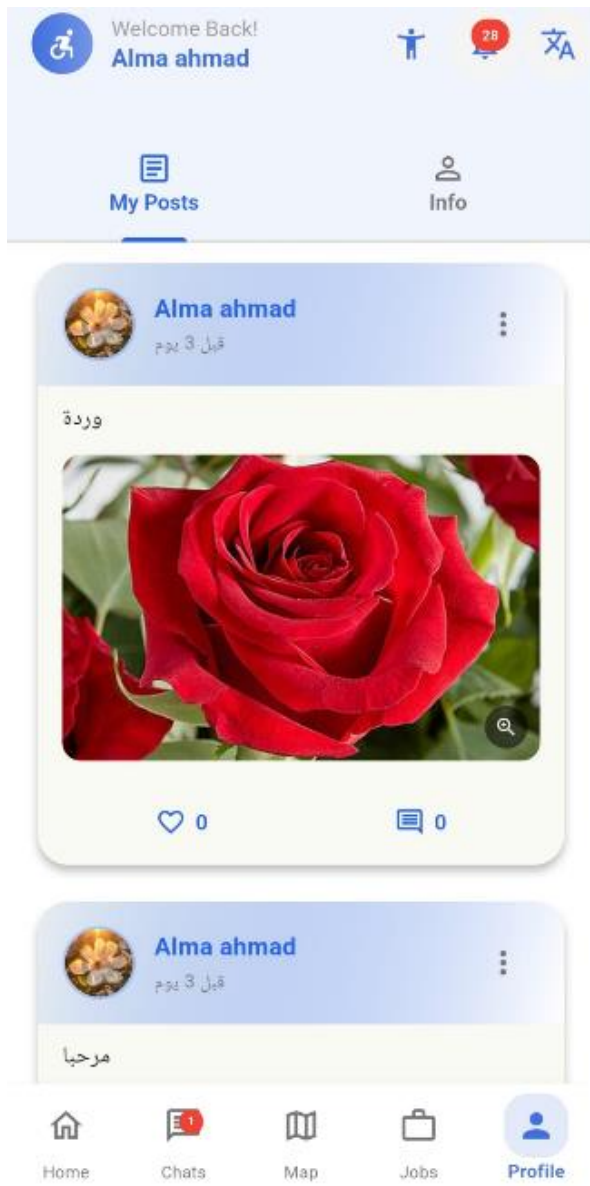
56post page2



57 edit post page1



58 edit post page2



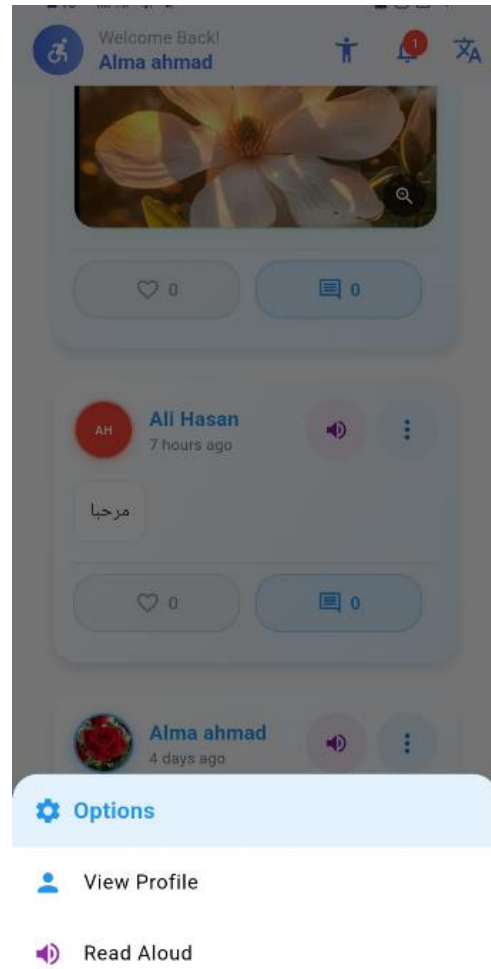
59 edit post page3



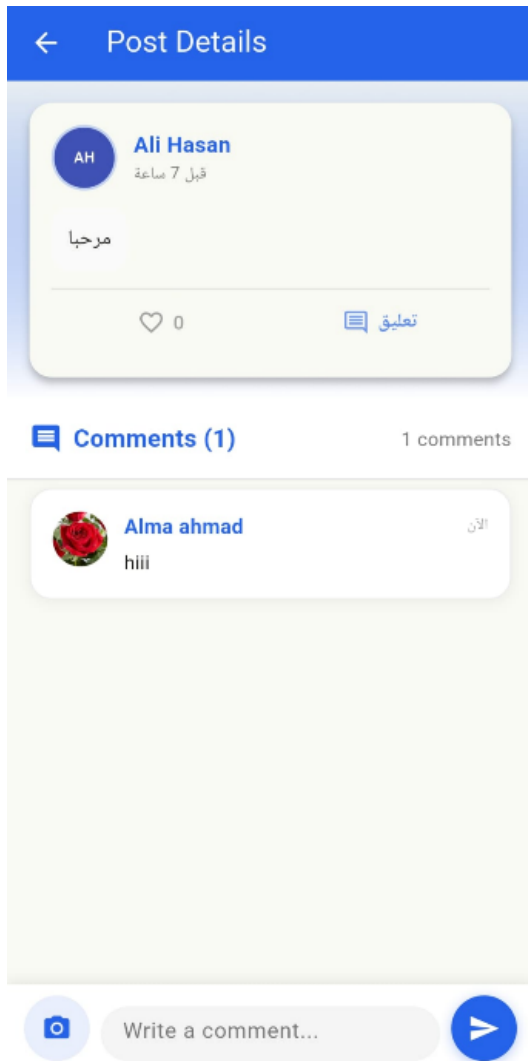
60 delete post



61post page3



62post page4



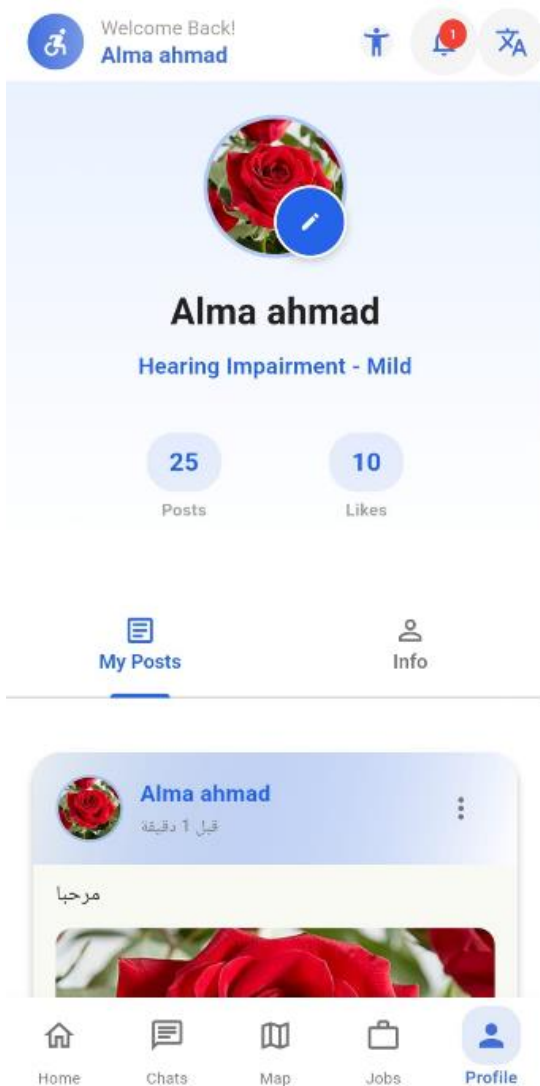
64post page 5



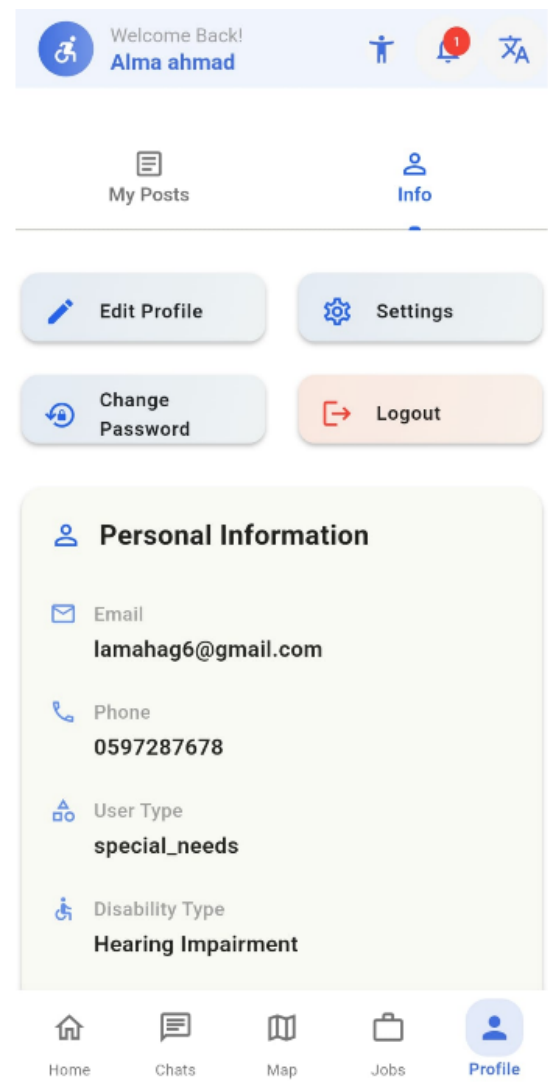
63 post page7 (comment with photo)

- **User profile**
The Profile section allows users to manage and review their personal information and activity within the HopeBridge platform. Through this section, users can view their general account details and access a list of posts they have previously shared.

The profile also provides access to system settings, where users can customize their preferences and update their profile information as needed. In addition, this section includes the option to securely log out from the platform, ensuring safe account management and control over user sessions.



65 user profile page 1



66user profile page2

← إعدادات الإشعارات

تحكم بالإشعارات
نوع الحساب: special_needs

تفعيل الإشعارات

القنوات

هذه القنوات تظهر حسب نوع حسابك، ويمكنك تعطيل/تفعيل ما تريد.

المواعيد

الأحداث

المنشورات

التطوع

ال دردشة

النظام

67 user profile (notification setting page)

← تعديل الملف الشخصي

المعلومات الأساسية

الاسم الكامل
Alma ahmad

رقم الهاتف
0597287678

تاريخ الميلاد
2005-10-24

الجنس
Female

معلومات الإعاقة

نوع الإعاقة
Hearing Impairment


مستوى الإعاقة
Mild

وصف الإعاقة



الأجهزة المساعدة
Prosthetic Device, Communication Devi...

68user profile (update page)

← Change Password

 Old Password 

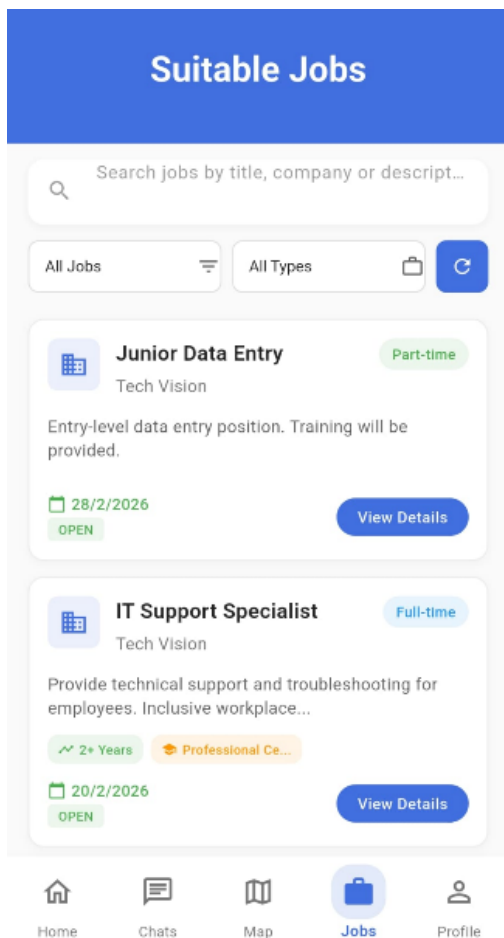
 New Password 

 Confirm Password 

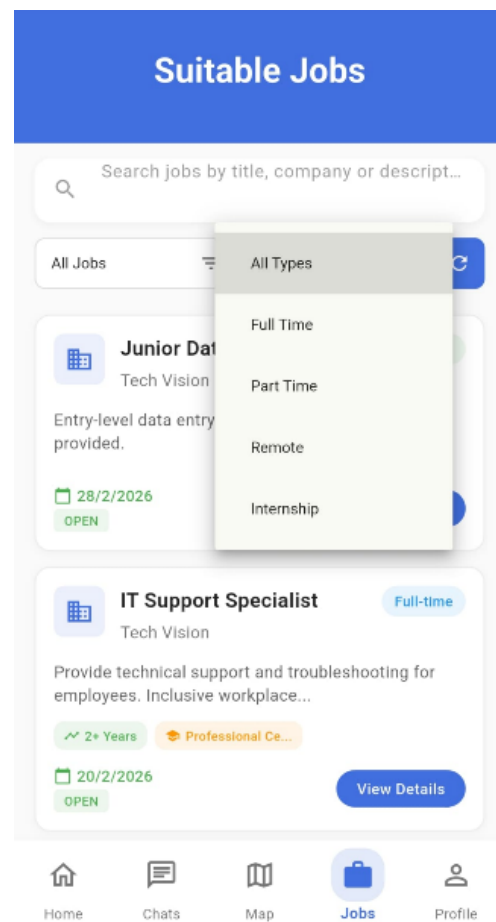
 Update Password

69 user profile (change password page)

- **Job page**
 The Jobs module in the *HopeBridge* platform enables users with special needs to explore employment opportunities that match their registered disability type. Upon accessing the Jobs page, users are presented with suitable job listings, with the ability to filter jobs by work type such as full-time, part-time, remote, or internship. Users can view detailed information about each job, including company details, requirements, accessibility features, and application instructions. The system also allows users to apply for jobs using the specified application method, ensuring an inclusive and accessible job-search experience.



70 Job page 1



71 Job page2

← Job Details

● OPEN

IT Support Specialist

Full-time

Posted on: 13 Jan 2026


Company Information


 **Tech Vision**
Technology
ناپلس


Job Details

Description

Provide technical support and troubleshooting for employees. Inclusive workplace with flexible hours.


 Location
Nablus


 Experience Level
Mid


 Salary Range
700 - 1000


72Job page3

← Job Details


 Location
Nablus


 Experience Level
Mid


 Salary Range
700 - 1000

 Deadline
20 Feb 2026

Requirements

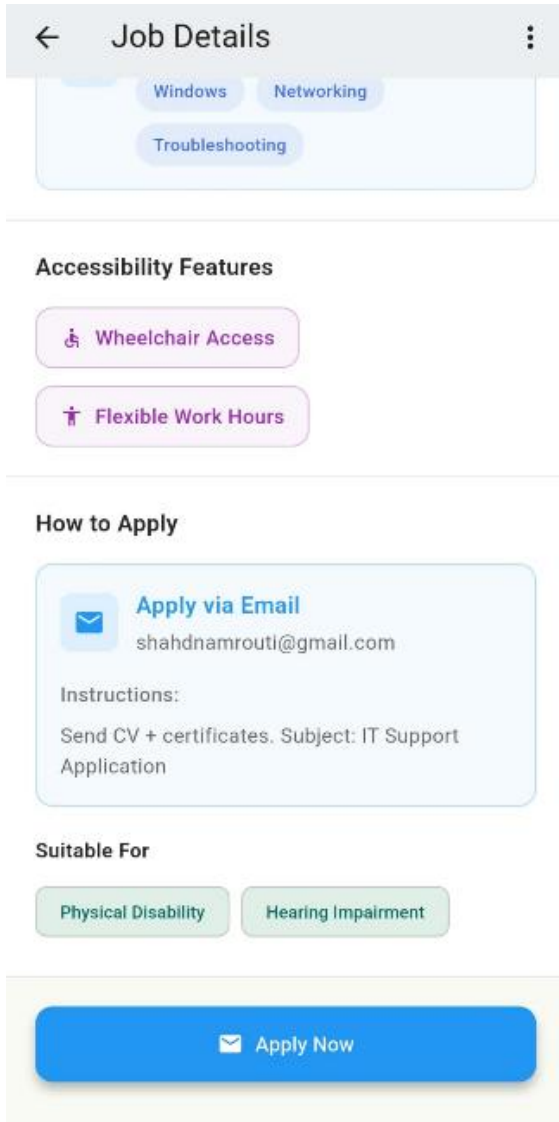
 **Experience Required**
2 years minimum
Up to 5 years

 **Certificate Required**
Professional Certificate
CompTIA A+ preferred (or equivalent).

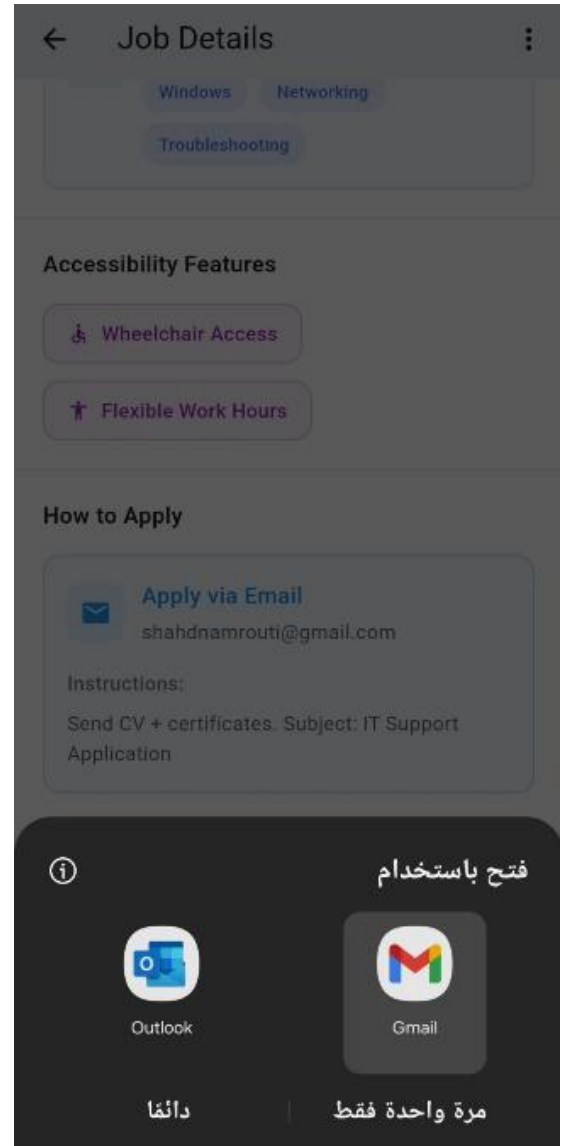
 **Required Skills**

- Windows
- Networking
- Troubleshooting

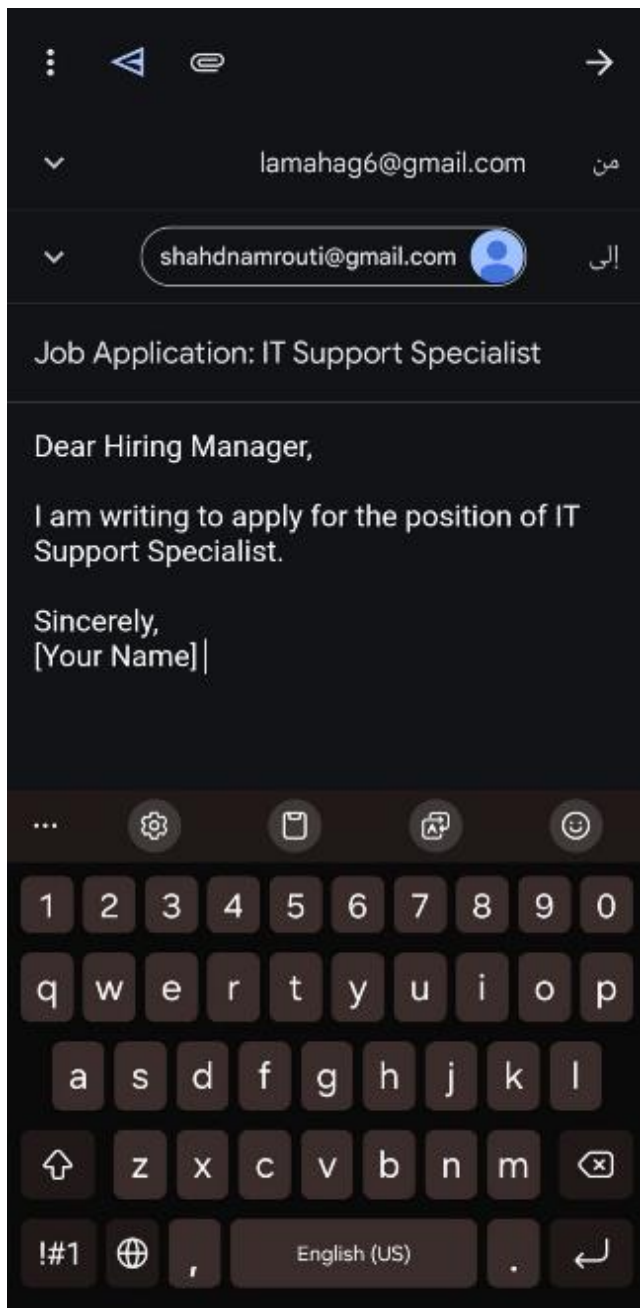
73Job page4



74Job page5



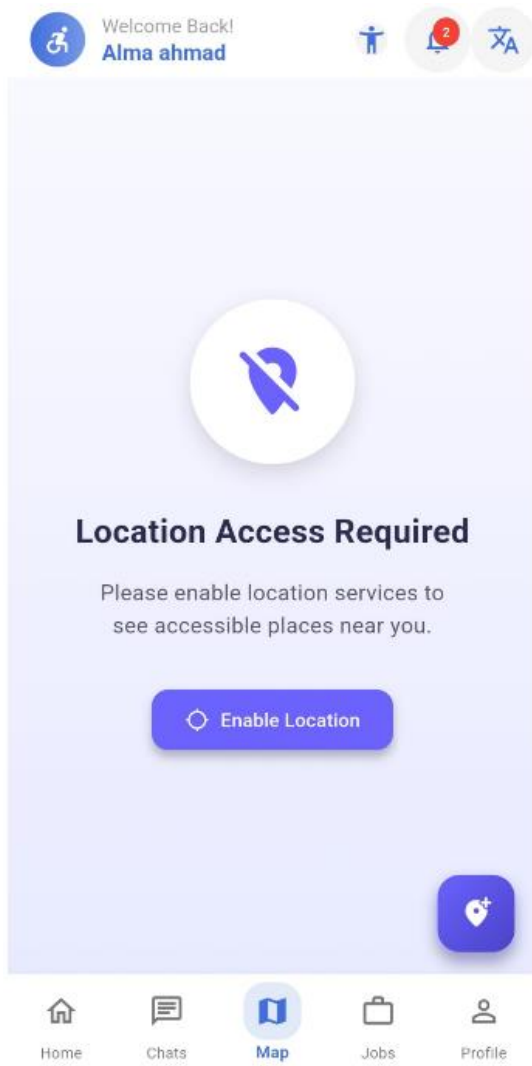
75Job page 6



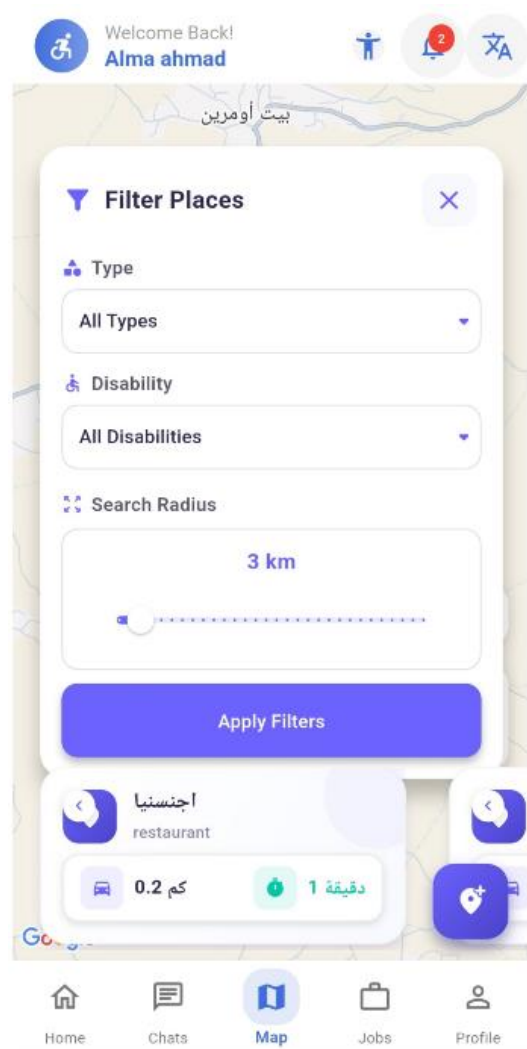
76Job page 7

- Map & Accessible Places page

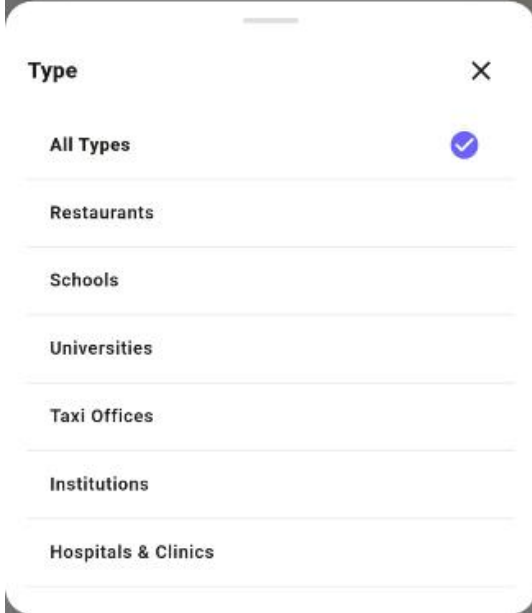
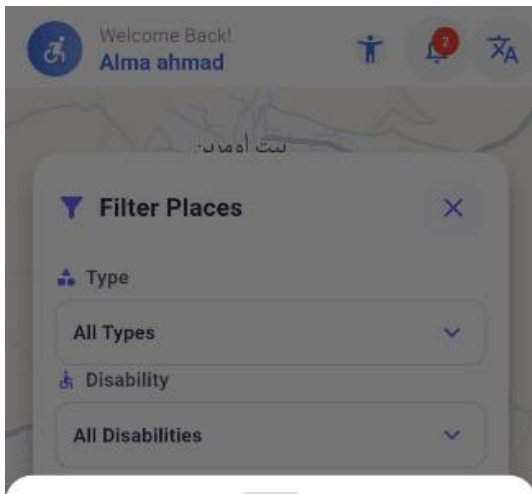
The Maps module in the HopeBridge platform allows users to search for accessible places based on their specific needs. Users can filter places by location, distance, place type, and supported disability features to find suitable nearby services. The filtered results are displayed interactively on the map, providing clear information about each place. In addition, users can suggest new places by adding them to the system; however, these places remain in a pending state until they are reviewed and approved by a place administrator. Once approved, the place becomes visible and accessible to all users, ensuring data accuracy and reliability.



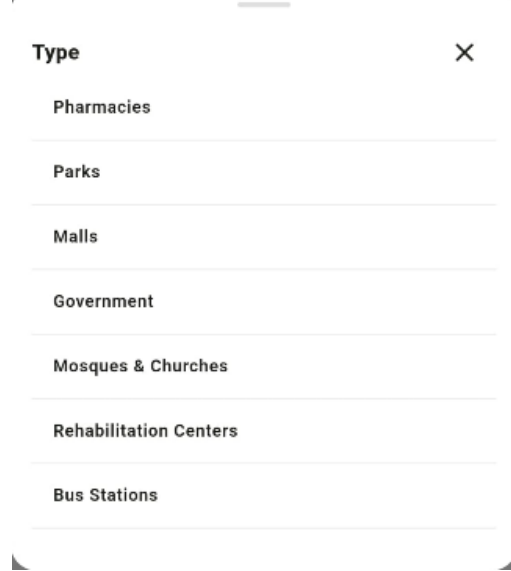
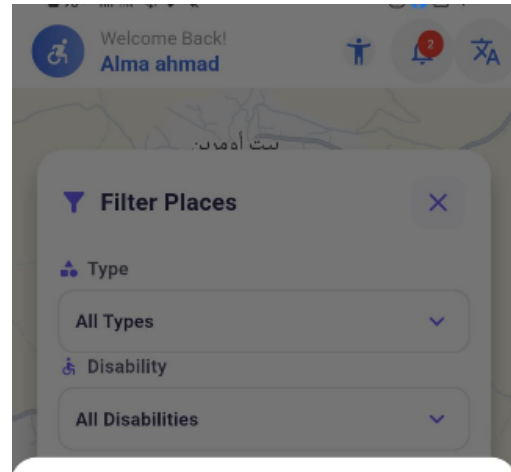
77 Map & Accessible Places page1



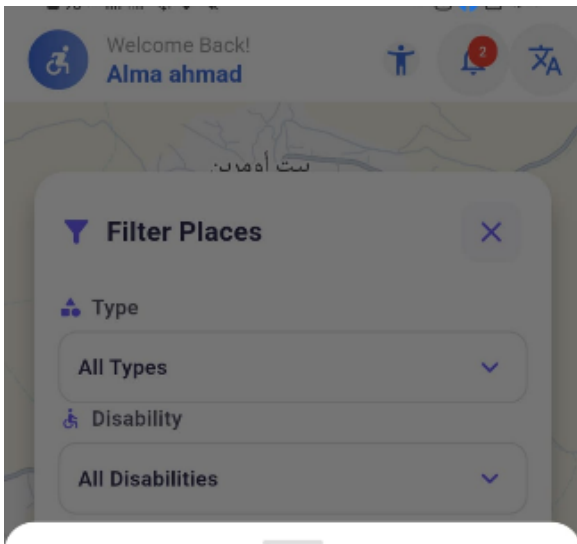
78 Map & Accessible Places page2



79Map & Accessible Places page3



80Map & Accessible Places page4



Disability



All Disabilities



Wheelchair

Hearing

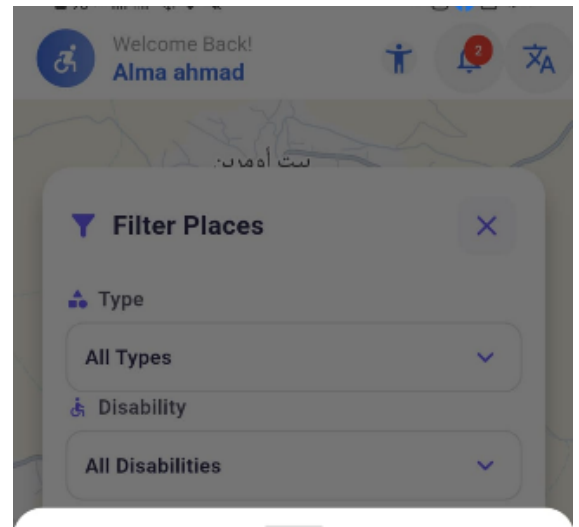
Visual

Cognitive

Autism Friendly

Speech

82Map & Accessible Places page 5



Disability



Elevator

Accessible WC

Braille

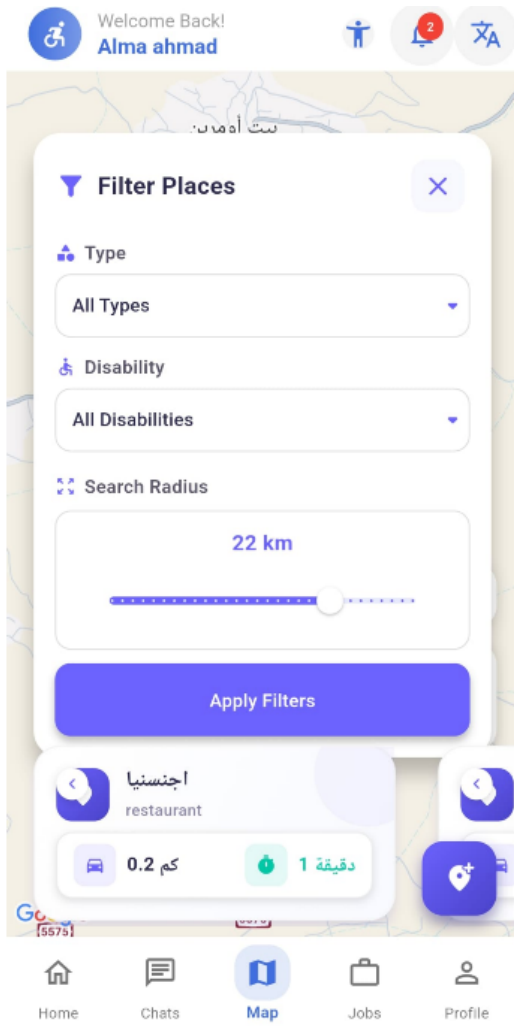
Sign Language

Reserved Parking

Low Counter

Service Animal

81Map & Accessible Places page 6



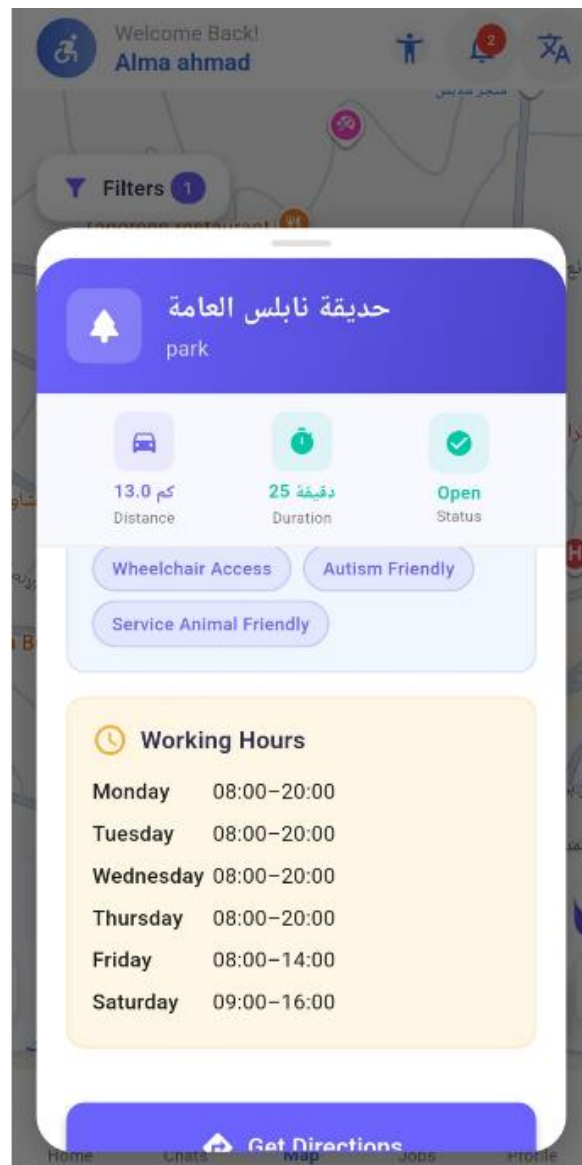
83Map & Accessible Places page7



84Map & Accessible Places page 8



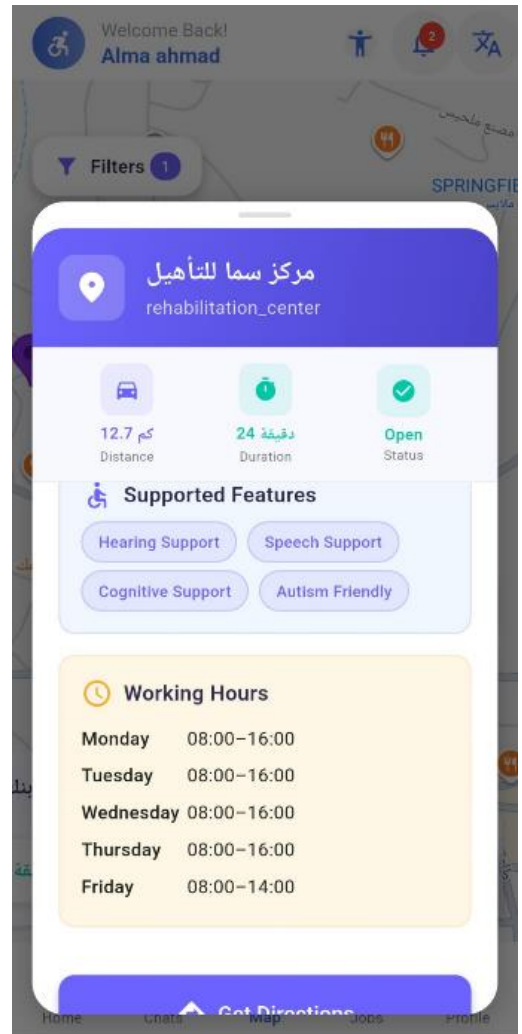
85Map & Accessible Places page 9



86Map & Accessible Places page 10



87Map & Accessible Places page11



88Map & Accessible Places page12

*Note : When a location is selected from the map, the location name, address, and city are automatically filled in.

← **Add New Place**

Create an Accessible Place
Pick location, fill details, then submit for review.

Location
Pick location on map

Basic Info

Place Name

Address

City

Description

Phone Website

Type
Restaurants

89Map & Accessible Places add place page 1

← **Pick Location**

جمعية اصدقاء

Friends Of Patien
شارع فيصل, البلدة القديمة, نابلس

UAE Friends Association
طوباس - Al Far'a Camp, طوباس

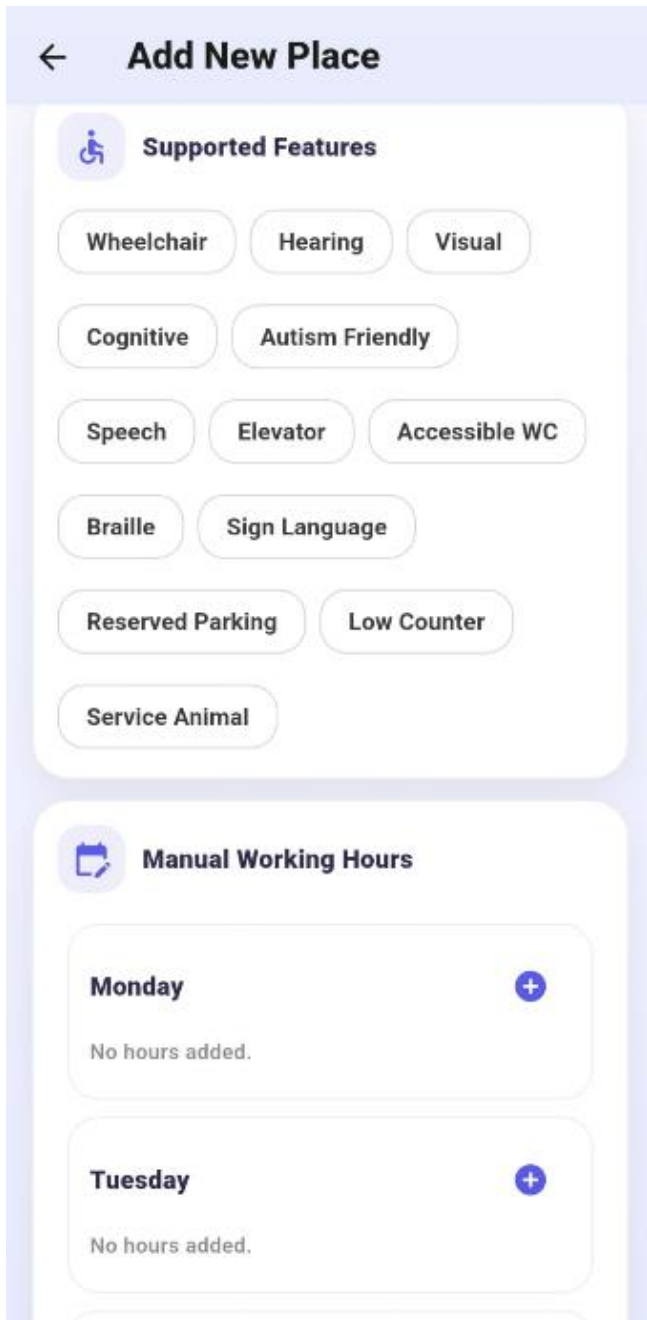
Location Details

✓ Location OK

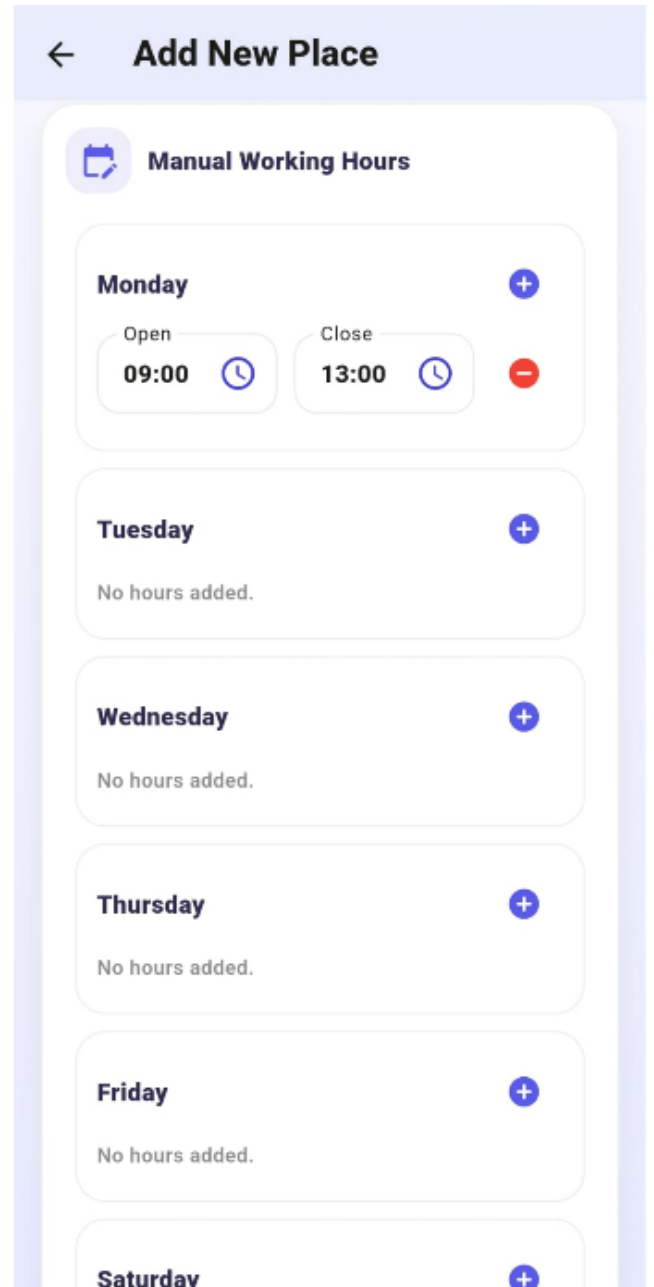
Friends Of Patien, شارع فيصل, المدينة القديمة, نابلس - مركز المدينة, البلدة القديمة, نابلس, منطقة أر الضفة الغربية, 803, الأراضي الفلسطينية

Lat: 32.218658, Lng: 35.268817

90Map & Accessible Places add place page2



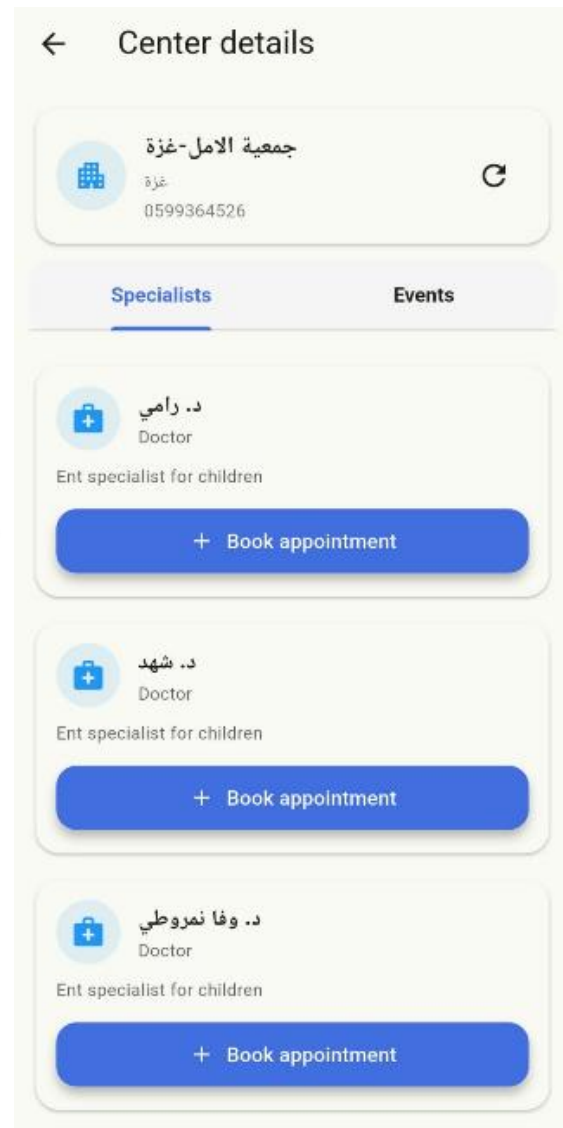
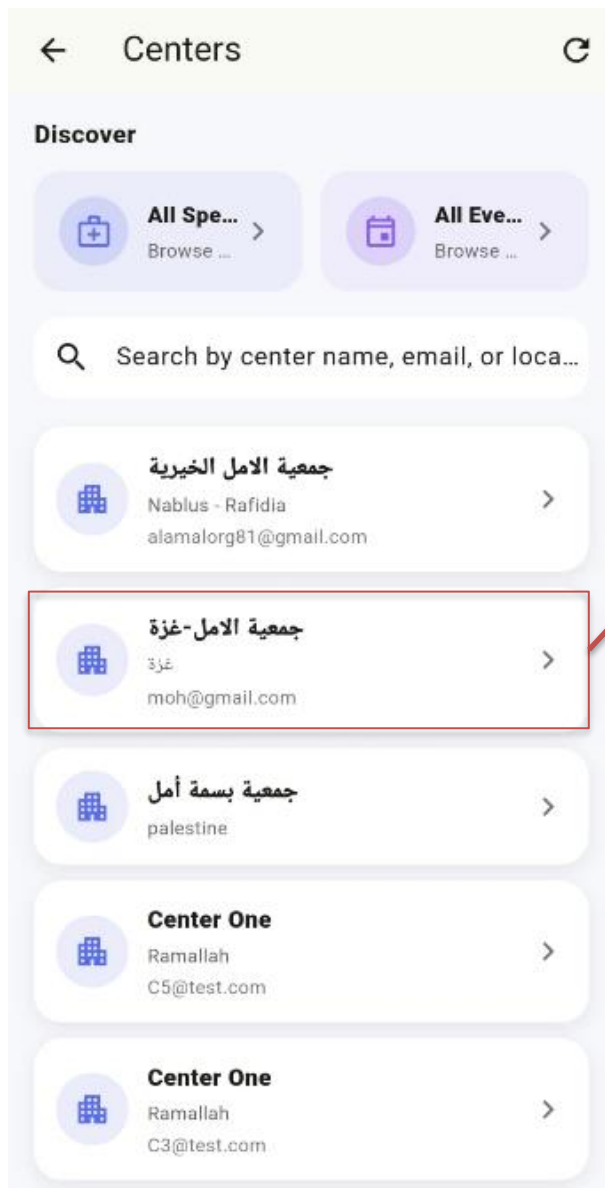
91Map & Accessible Places add place page 3



92Map & Accessible Places add place page 4

- **Center page**
The Centers section allows people with special needs to browse and discover approved centers available on the HopeBridge platform. When opening this page, the system displays only centers with an Approved status to ensure reliability and verified service providers. Users can search centers by name, email, or location to quickly find the most suitable option.

After selecting a specific center, the user can view the center's related content, including its available events and specialists, enabling easier access to services and activities provided by that organization. In addition to browsing a single center, the page also offers quick access to browse all specialists and all events across the entire system, allowing users to explore platform-wide opportunities without being limited to one center.



93 center page1

94center page 2

← Center details

جمعية الامل-غزة
غزة
0599364526

Specialists Events

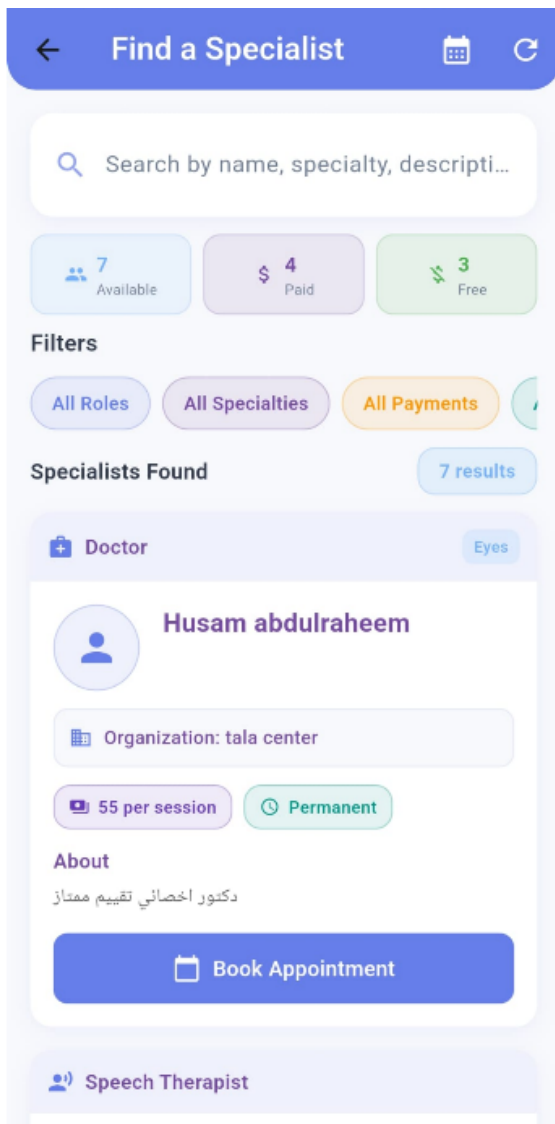
جلسة دعم نفسي Active
Mobility In person
جلسة لذوي الاحتياجات
2026-01-25 • 10:30 - 13:00
Presenter: Internal specialist
قاعة المركز
Join Event

ورشة توعية صحية Active
All Disabilities In person
ورشة يقدمها ضيف خارجي
2026-02-15 • 10:00 - 12:00
Presenter: Dr. Ahmed Youssef
قاعة المركز

95 center page 3

- **Specialists & Appointments Module**

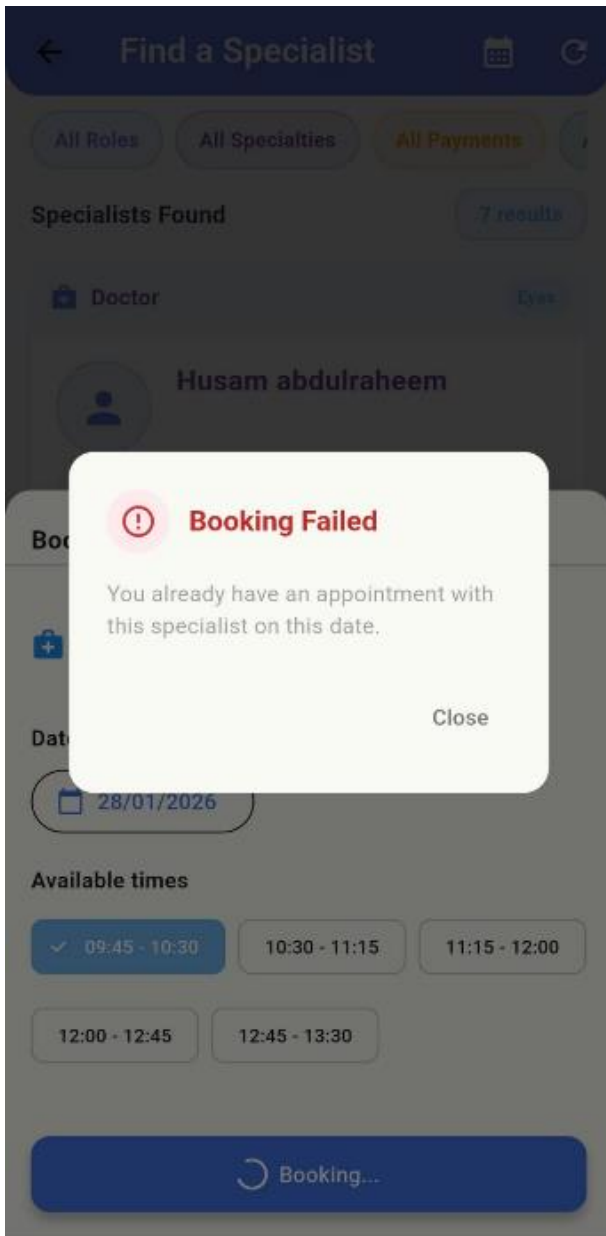
The Specialists and Appointments module allows users with special needs to browse all available specialists in the platform or view specialists belonging to a specific center. Users select the desired date for booking, and the system displays the available time slots for the selected specialist on that day. If no slots are available, the system clearly indicates that no appointments are offered on that date. The system enforces scheduling rules by preventing multiple bookings with the same specialist on the same day and avoiding time conflicts with existing appointments. Once an appointment is booked, notifications are sent to both the specialist and the affiliated center, and the selected time slot is removed from availability for other users, ensuring a smooth and organized booking experience.



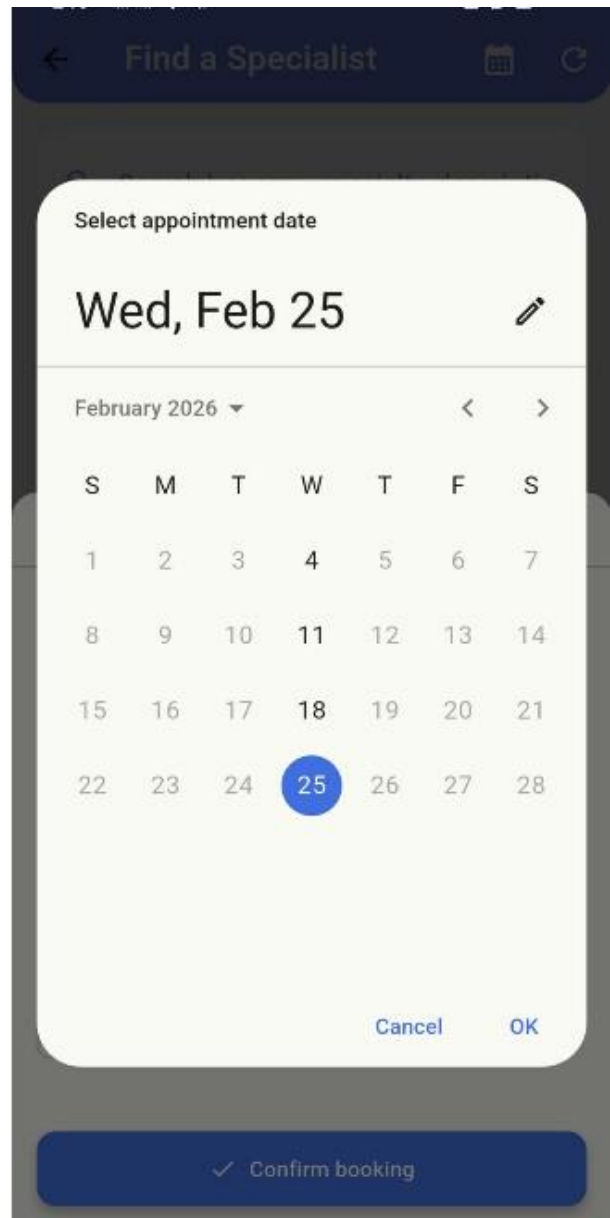
96 specialist & appointment page1



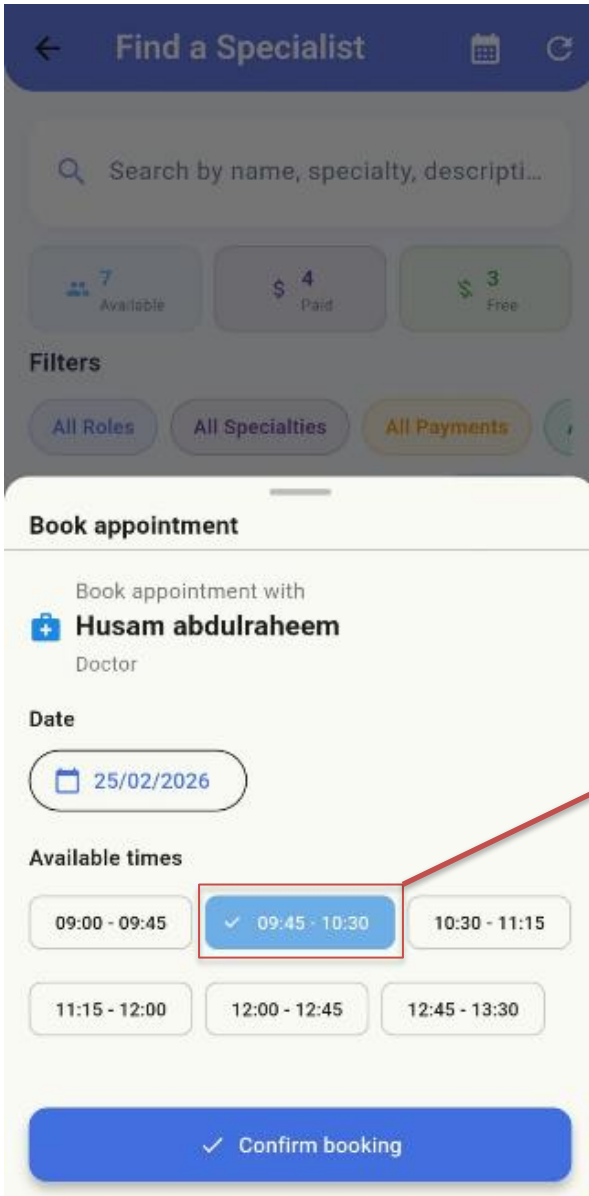
97specialist & appointment page2



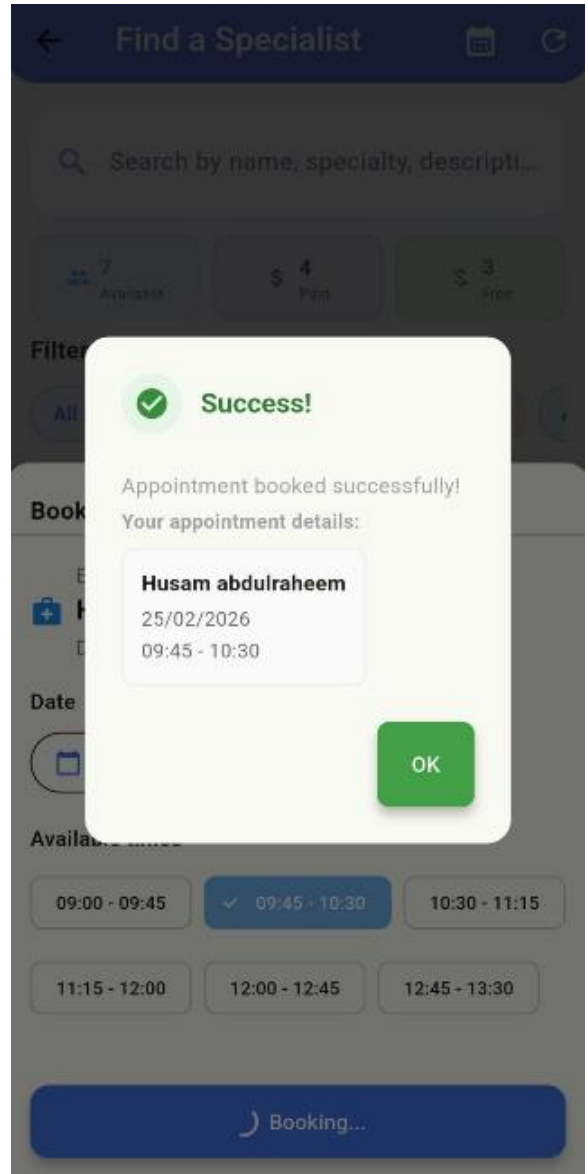
98specialist & appointment page3



99specialist & appointment page4



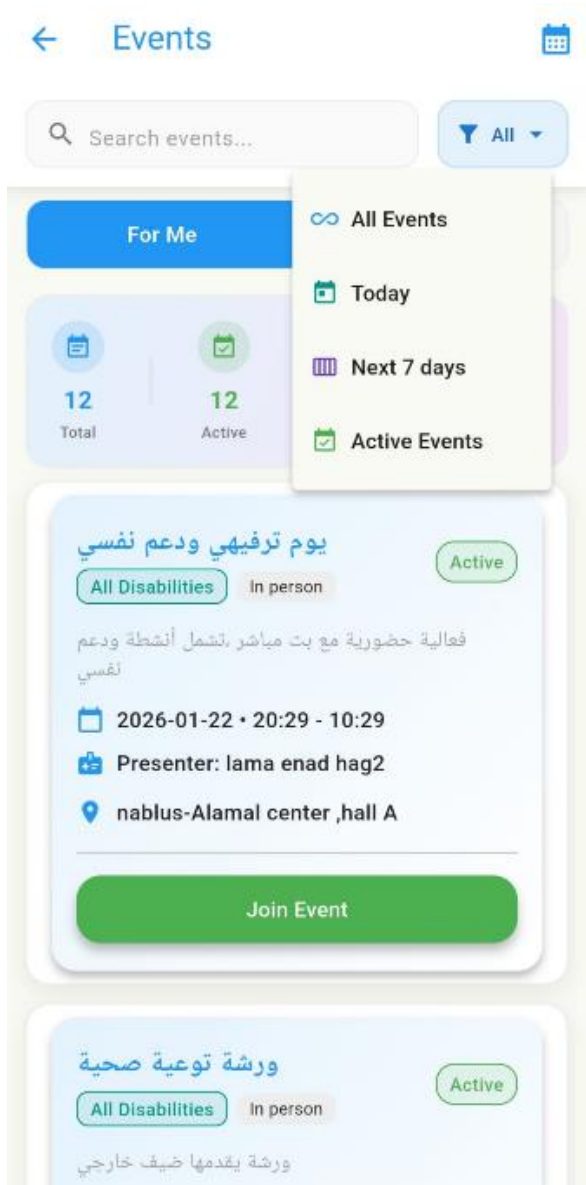
101specialist & appointment page5



100specialist & appointment page6

- Events Module

The Events module allows users with special needs to browse all events available in the system or view events organized by a specific center. Users can join events that match their interests, while the system ensures proper scheduling by preventing conflicts with other joined events or existing specialist appointments. If an event is available but has reached its maximum capacity, users can still request to join and will be placed on a waiting list until a spot becomes available. This ensures fair participation and effective event management.



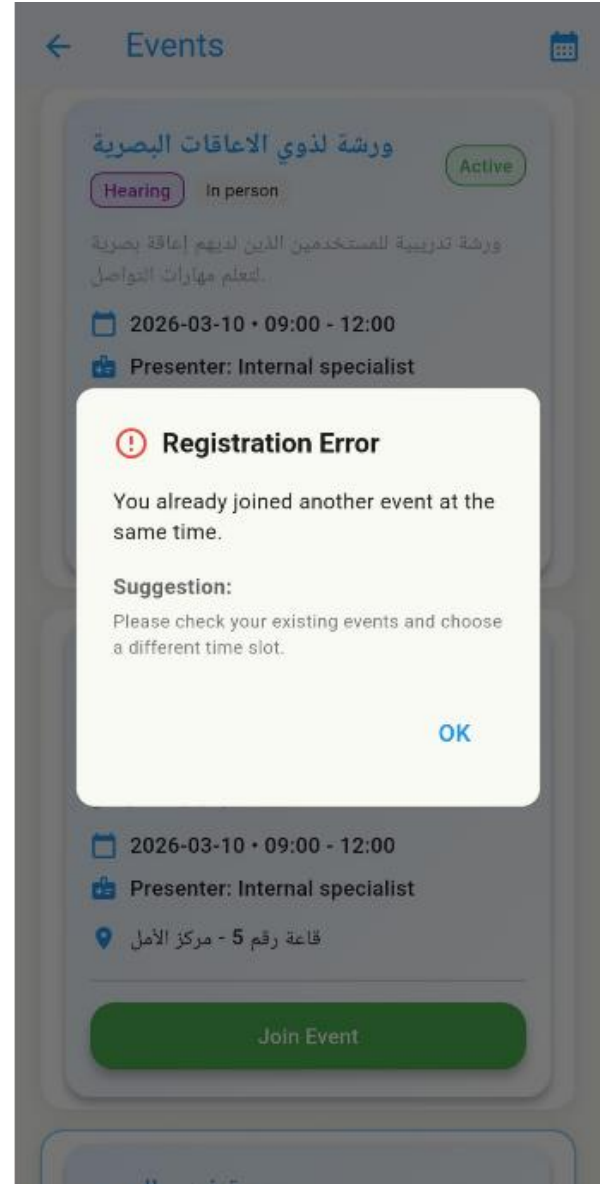
102 search & join event page1



103 search & join event page2



104 search & join event page3



105 search & join event page4

- Volunteer Request System

The platform allows users with special needs to create volunteer requests based on their specific needs, preferred date and time, location, and required services. By default, the request is visible to all volunteers who accept volunteer tasks. After creating a request, the user can optionally select a specific volunteer, in which case the request becomes private and is sent only to that volunteer. The selected volunteer receives a notification and can either accept or reject the request. If the request is accepted, a direct chat is automatically created between the user and the volunteer to enable communication, coordination, and agreement on the service details.

Users with special needs (and parents) can view all volunteer requests they have created through the system. The requests are clearly organized based on their current status, such as Open, Pending, Accepted, Cancelled, and Completed.

This allows users to easily track the progress of each request, know whether it is still available, waiting for a volunteer's response, currently assigned, or already finished.

In case a volunteer request or booking is cancelled by either party (the requester or the volunteer), the system automatically notifies both sides.

An in-app notification is sent immediately to inform the involved users about the cancellation, and an email notification is also delivered to ensure that the message is received even if the user is not actively using the platform.

This mechanism enhances transparency, reduces confusion, and ensures that all parties are promptly informed of any changes to the request status.

← My companion requests

All OPEN PENDING ACCEPTED

2026-01-29 08:00-22:00 PENDING

Nablus • مستشفى النجاح

\$ Paid • total: 0.00 Services: 2

Daily Companion Child Care

Waiting for volunteer response

2026-01-09 20:00-20:15 COMPLETED

Nablus • test

Free Services: 2

Daily Companion Child Care

2026-01-24 10:23-12:23 ACCEPTED

Nablus • nablus ,rafidia

Free Services: 3

Daily Companion Child Care

+ New request

106volunteer request page1

← My companion requests

All OPEN PENDING ACCEPTED

2026-01-29 08:00-22:00 PENDING

Nablus • مستشفى النجاح

\$ Paid • total: 0.00 Services: 2

Daily Companion Child Care

Waiting for volunteer response

2026-01-20 08:21-21:21 PENDING

Nablus • home

\$ Paid • total: 0.00 Services: 6

Daily Companion Child Care

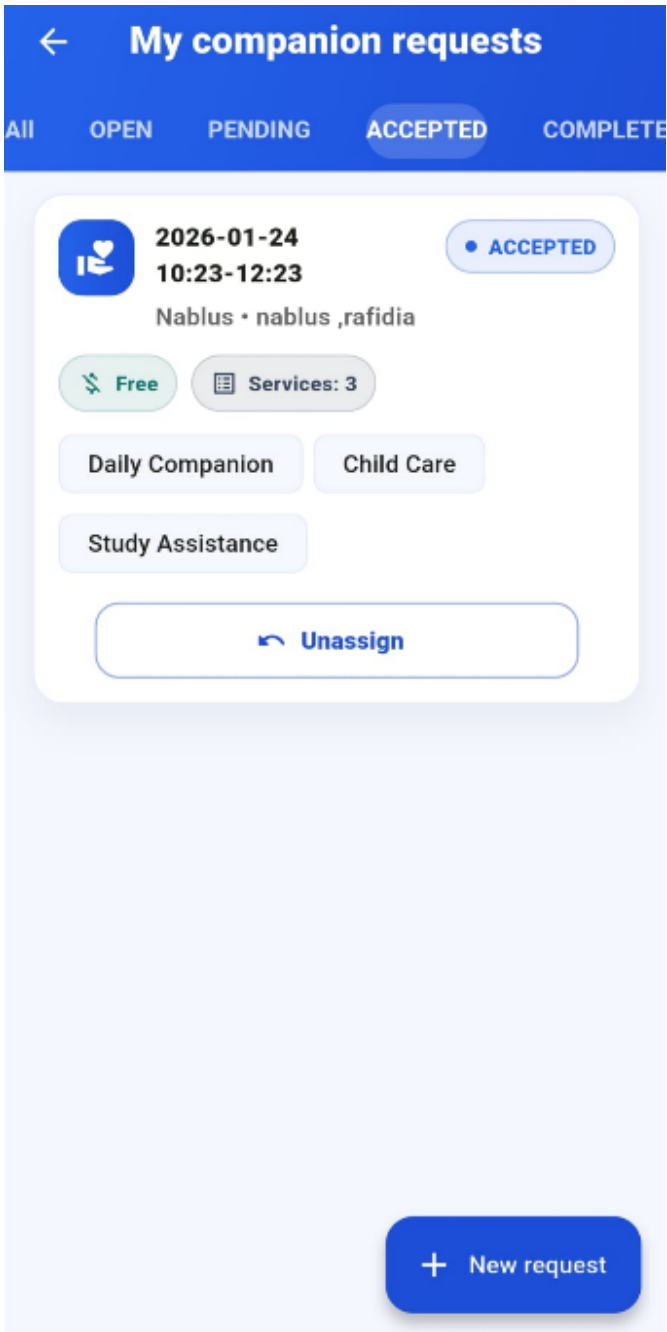
Communication Support

Mobility Support Therapy Support

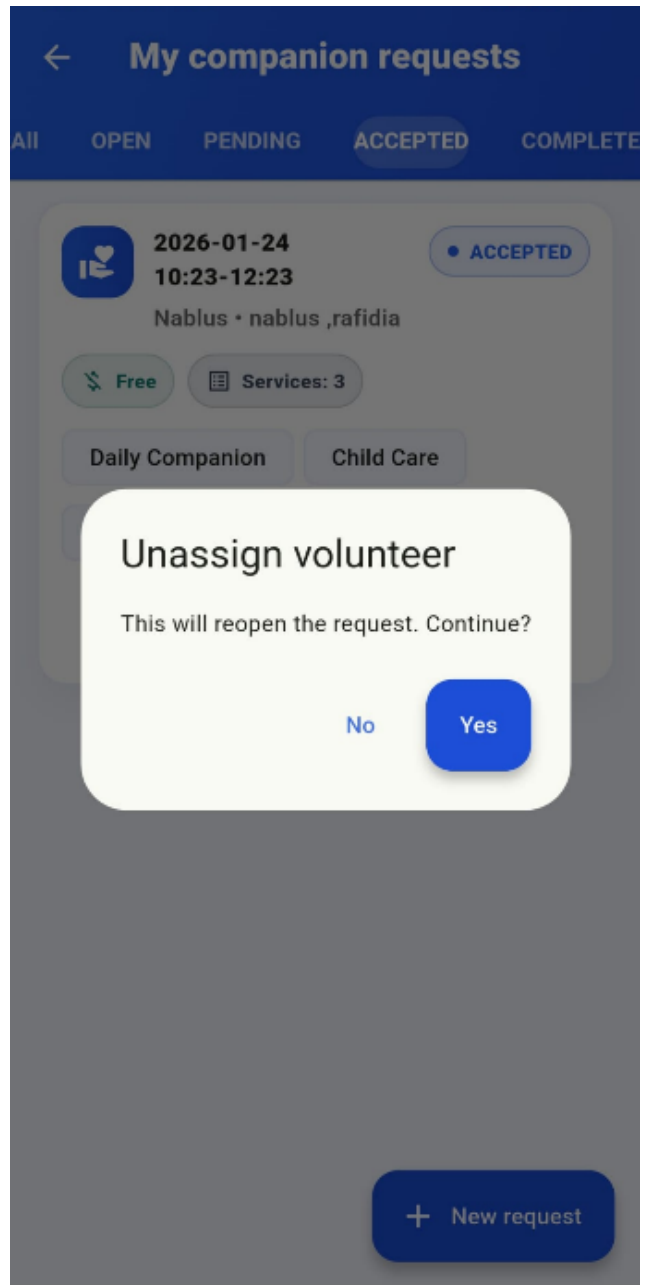
Other

Waiting for volunteer response + New request

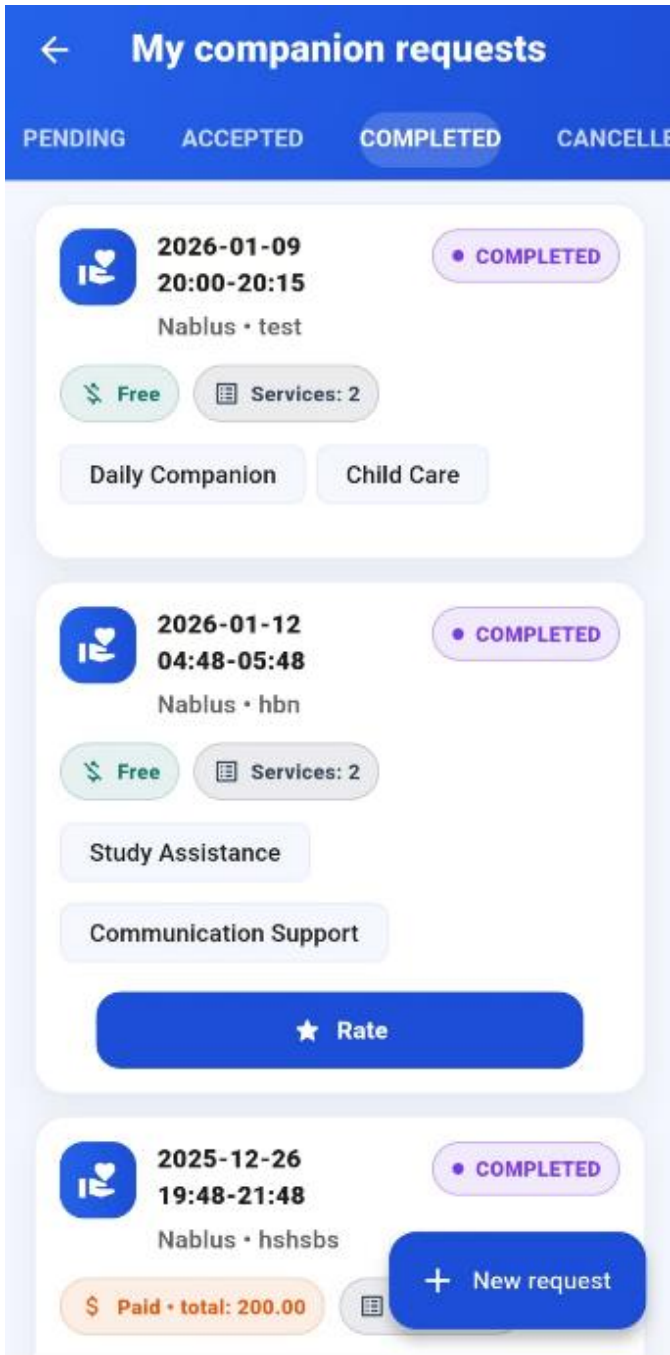
107volunteer request page2



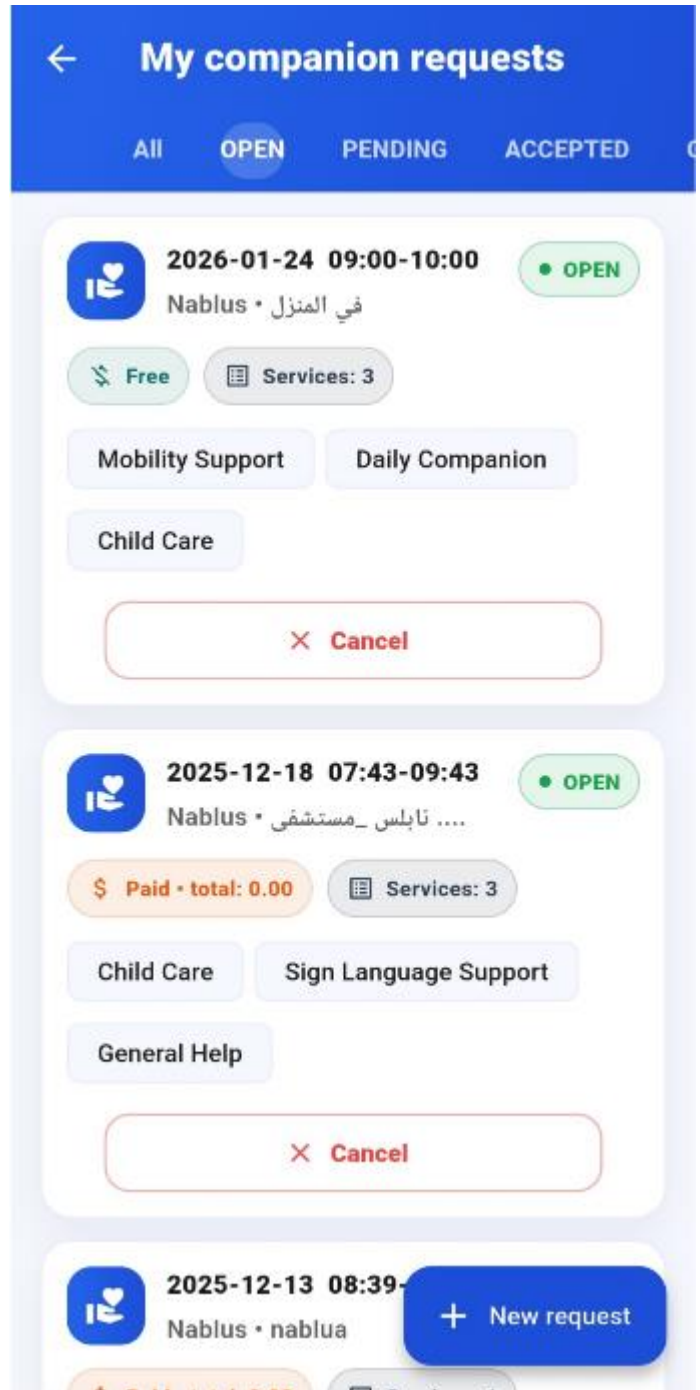
108volunteer request page3



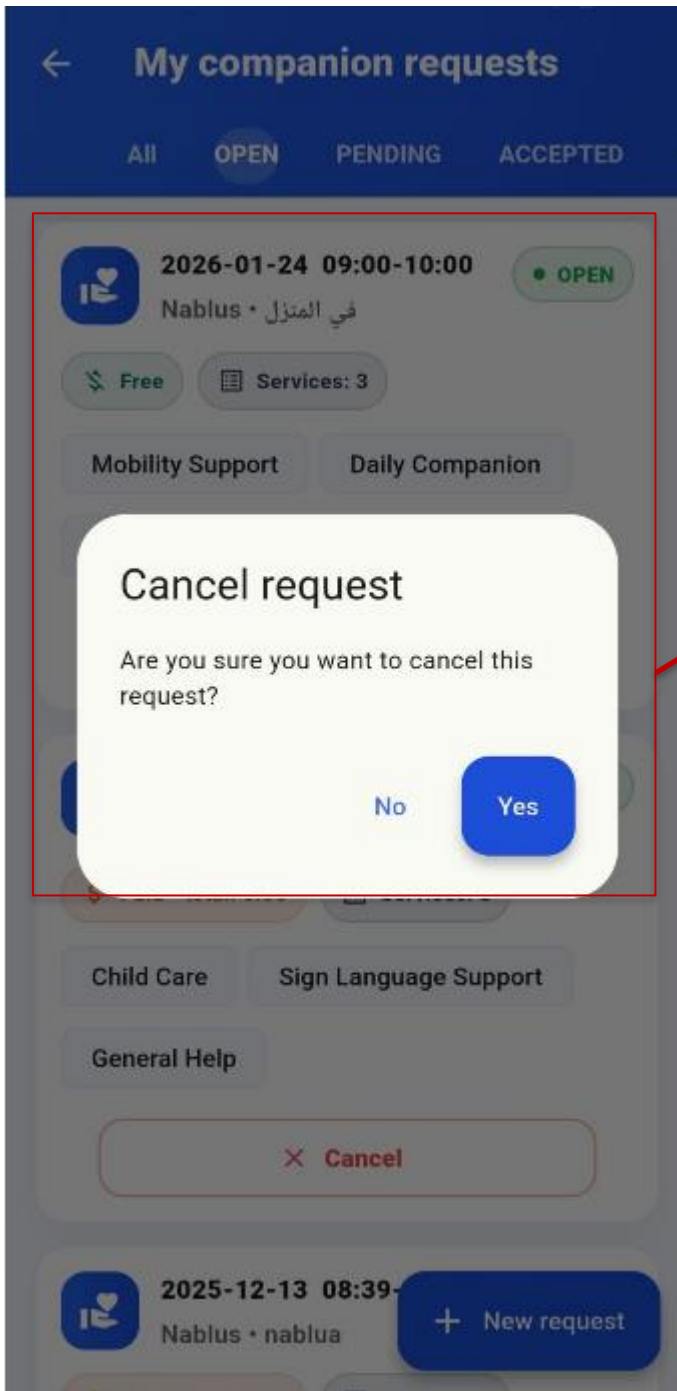
109 volunteer request page4



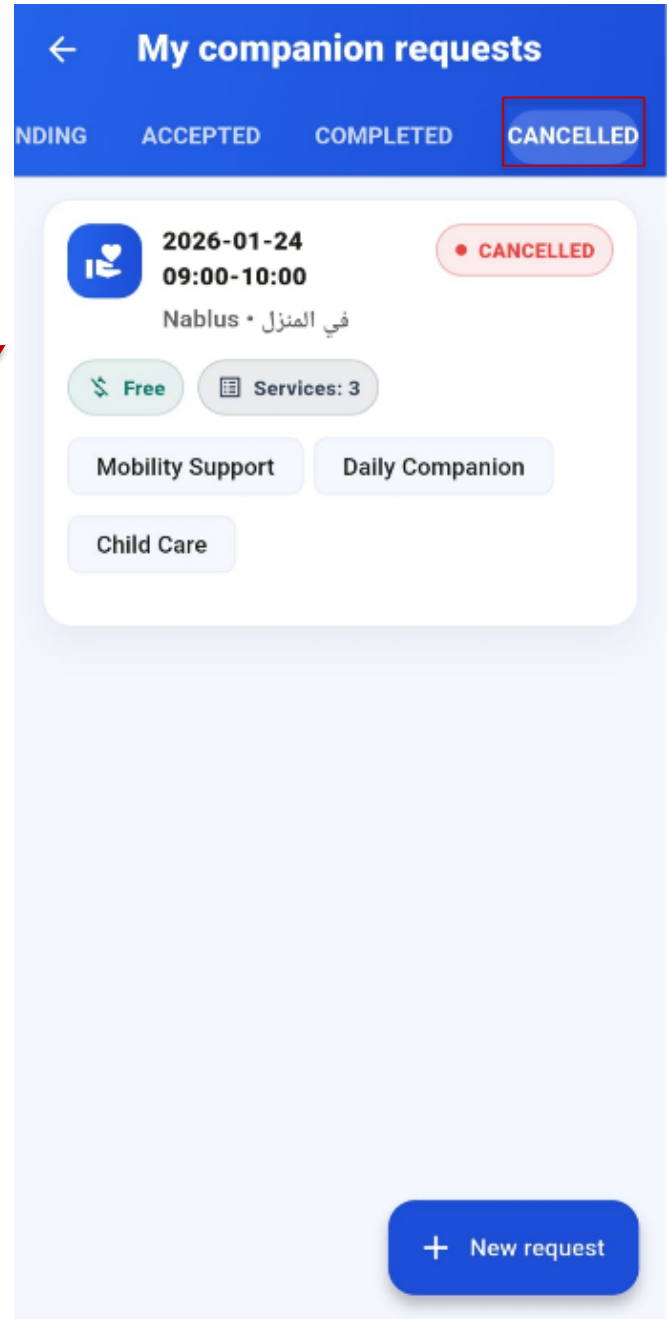
110volunteer request page5



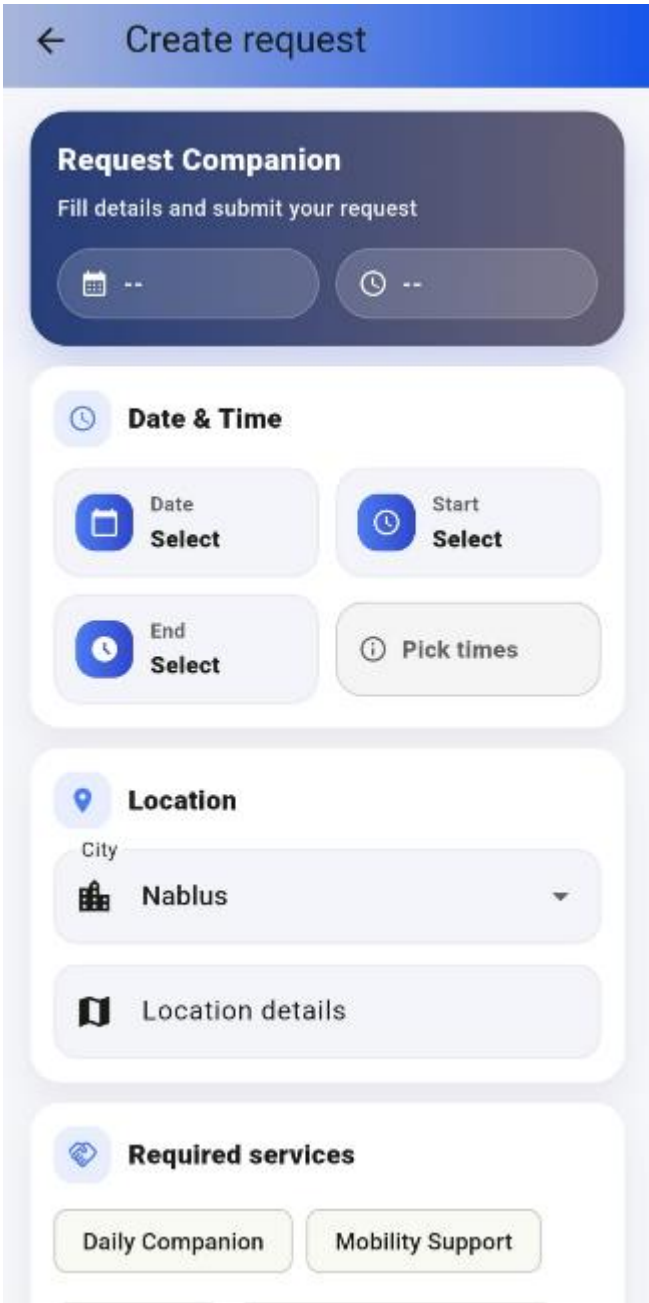
111volunteer request page6



112volunteer request page7



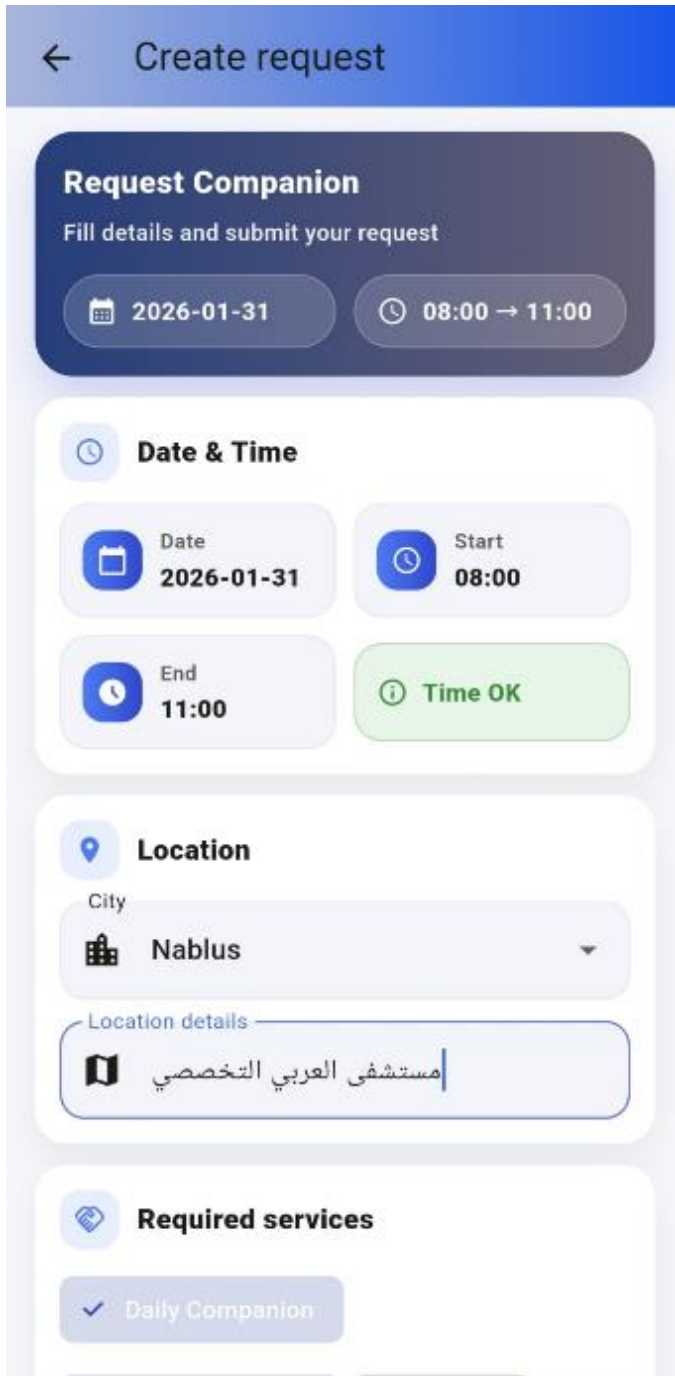
113volunteer request page8



114 create volunteer request page1



115 create volunteer request page2



116create volunteer request page3



117create volunteer request page4

← Create request

Request Companion
Fill details and submit your request

2026-01-31 08:00 → 11:00

Date & Time

Date 2026-01-31 Start 08:00

End 11:00 Time OK

Location

City Nablus

Location details مستشفى العربي التخصصي

Required services

✓ Daily Companion

118create volunteer request page5

← Create request

Required services

✓ Daily Companion

✓ Mobility Support Child Care

Communication Support

Sign Language Support

Therapy Support Study Assistance

General Help Other

Leave empty to accept any.

Preferences

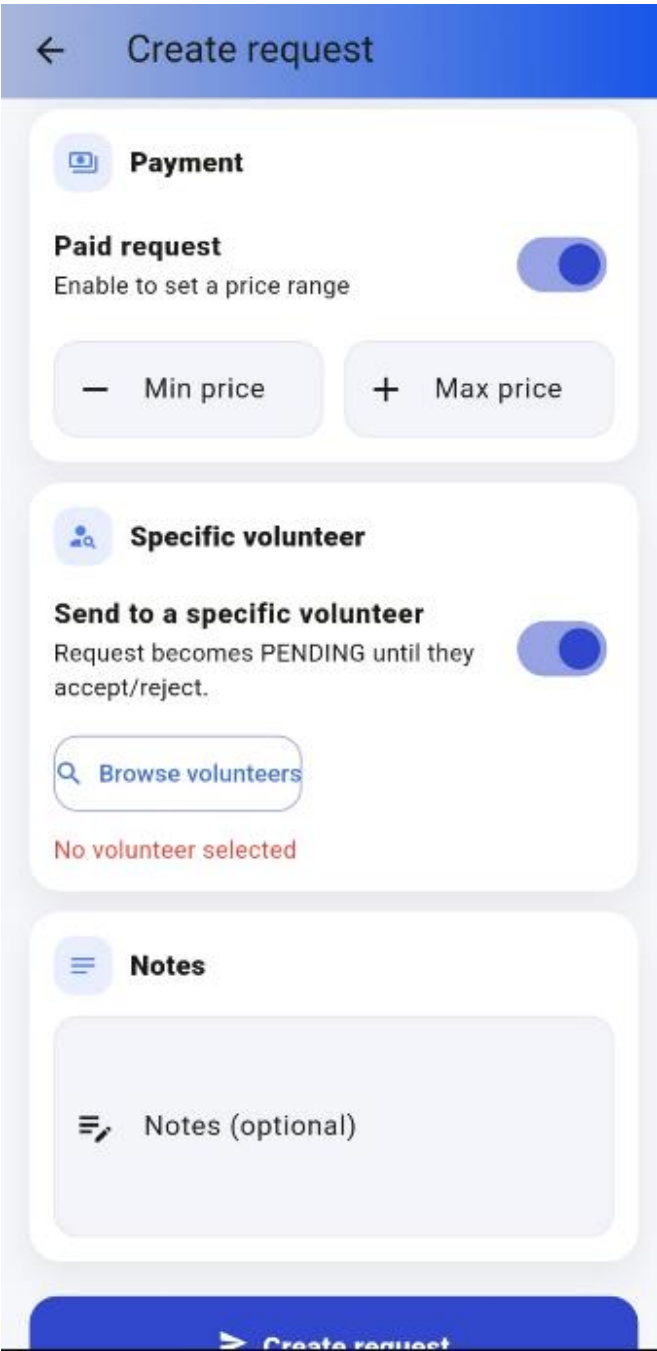
Preferred gender male

Experience level Basic

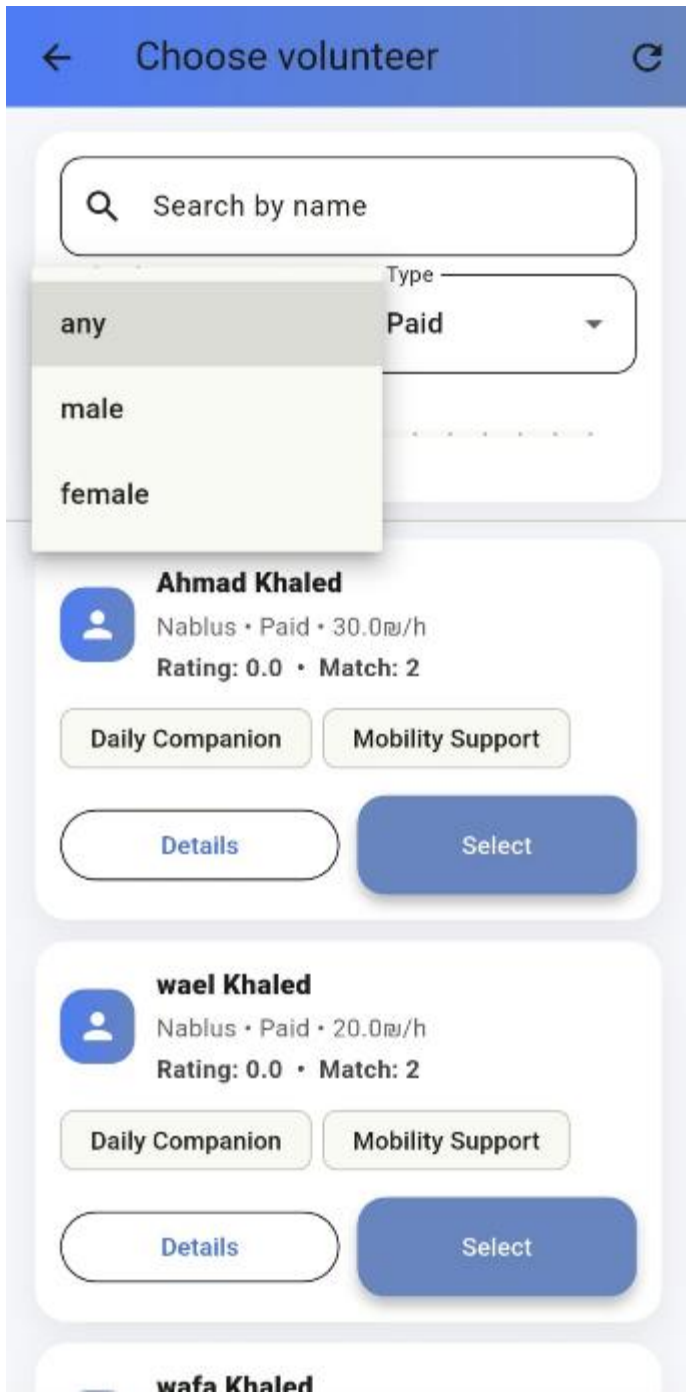
Payment

Paid request

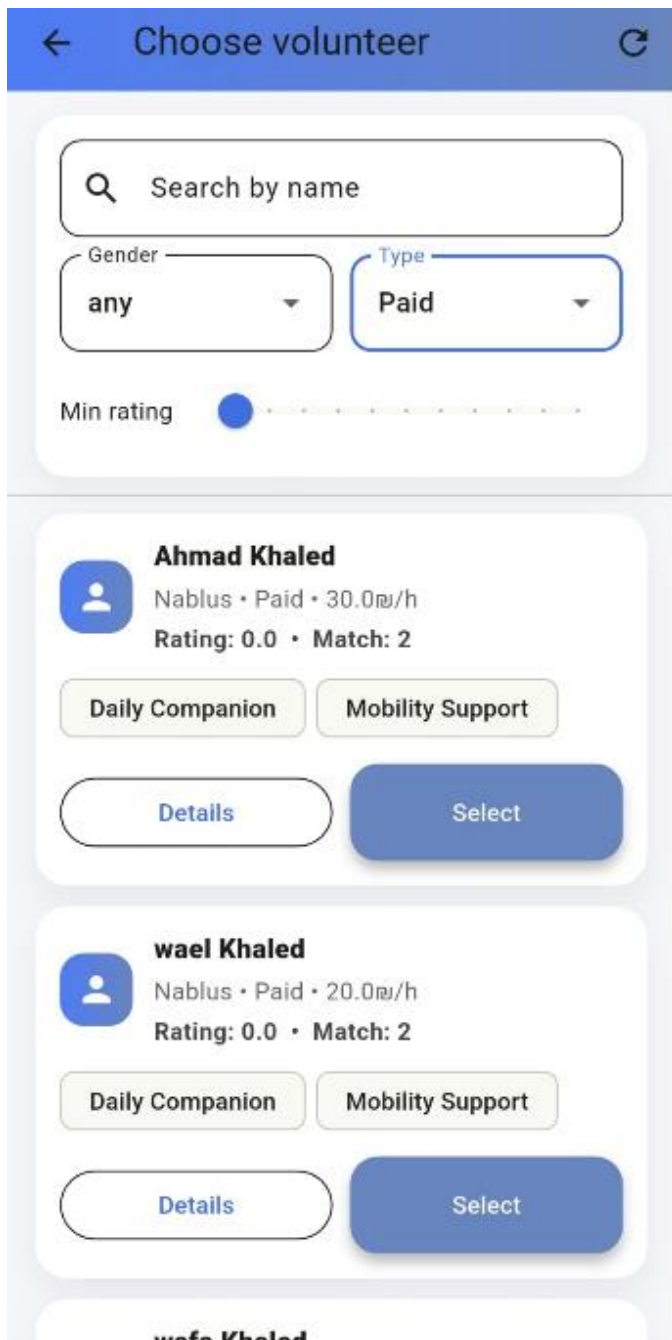
119create volunteer request page6



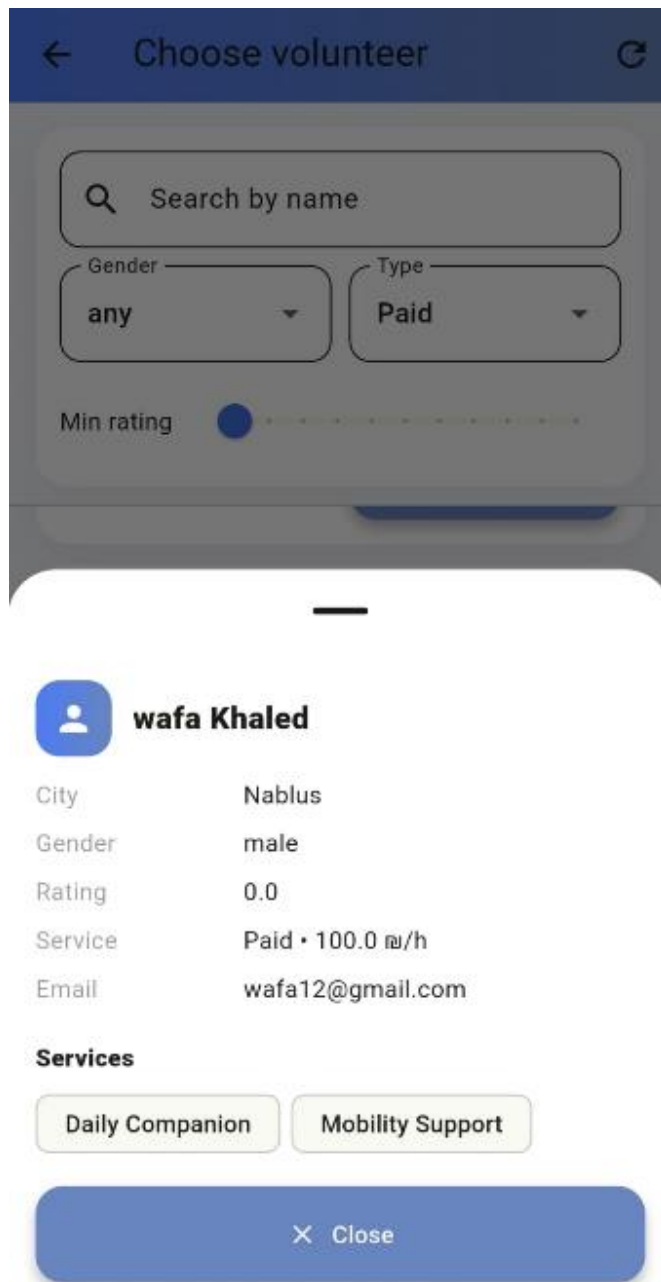
120create volunteer request page7



121create volunteer request page8



122create volunteer request page9



123create volunteer request page10

←
Create request

Paid request

Enable to set a price range

Min price
- 30

Max price
+ 100

👤 **Specific volunteer**

Send to a specific volunteer

Request becomes PENDING until they accept/reject.

🔍

👤

wafa Khaled

Rating: 0.0 ✕

Paid • Rate: 100.0 SAR/h

☰ **Notes**

Notes (optional)

...اريد مرافقتي في الفحوصات الطبية الخ

☰

124create volunteer request page 11

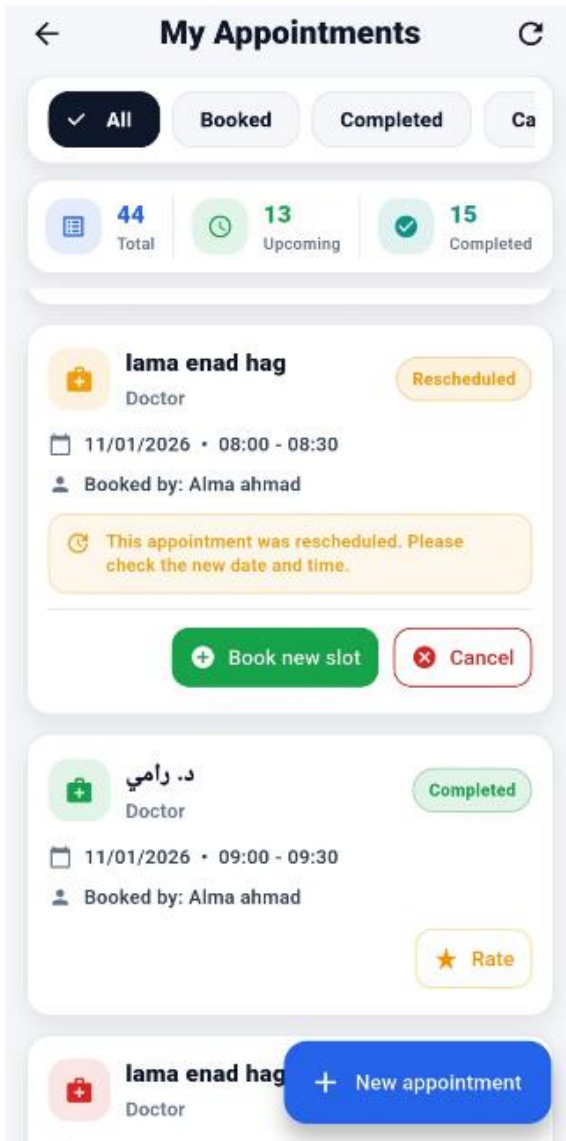
- Appointments Overview

The system allows users with special needs to view all their appointments in one place, including appointments with specialists and registered events.

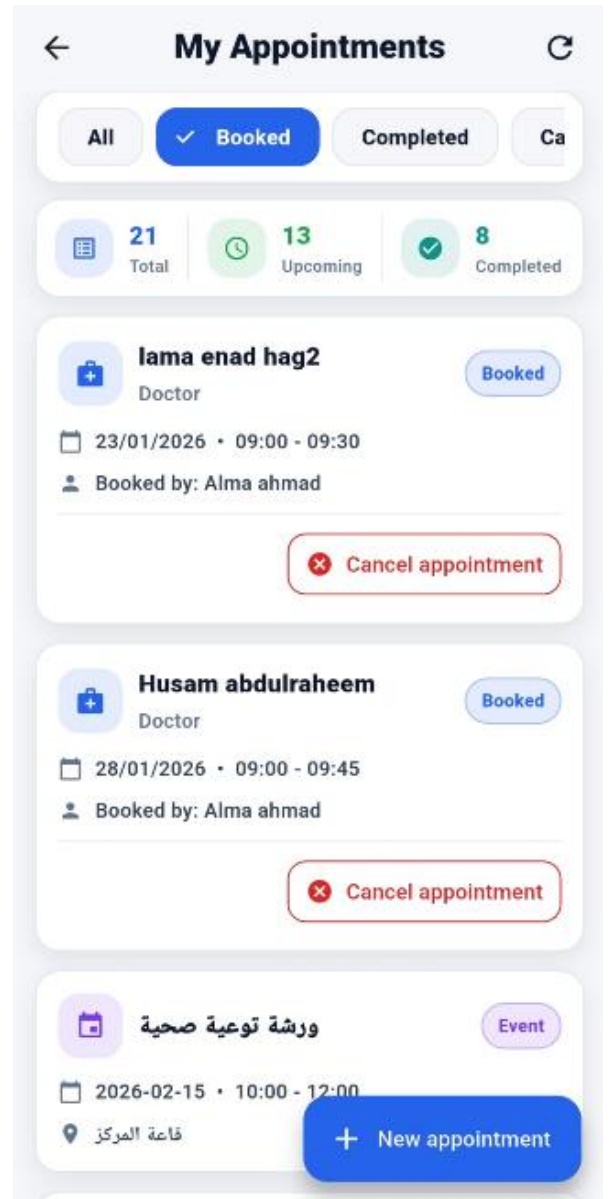
Users can easily browse and filter their appointments based on their status, such as All, Booked, Completed, Cancelled, or Rescheduled, which helps them track their schedule efficiently.

If an appointment with a specialist is marked as Rescheduled, the user is given the flexibility to either select a new available time slot that better suits their needs or cancel the appointment entirely.

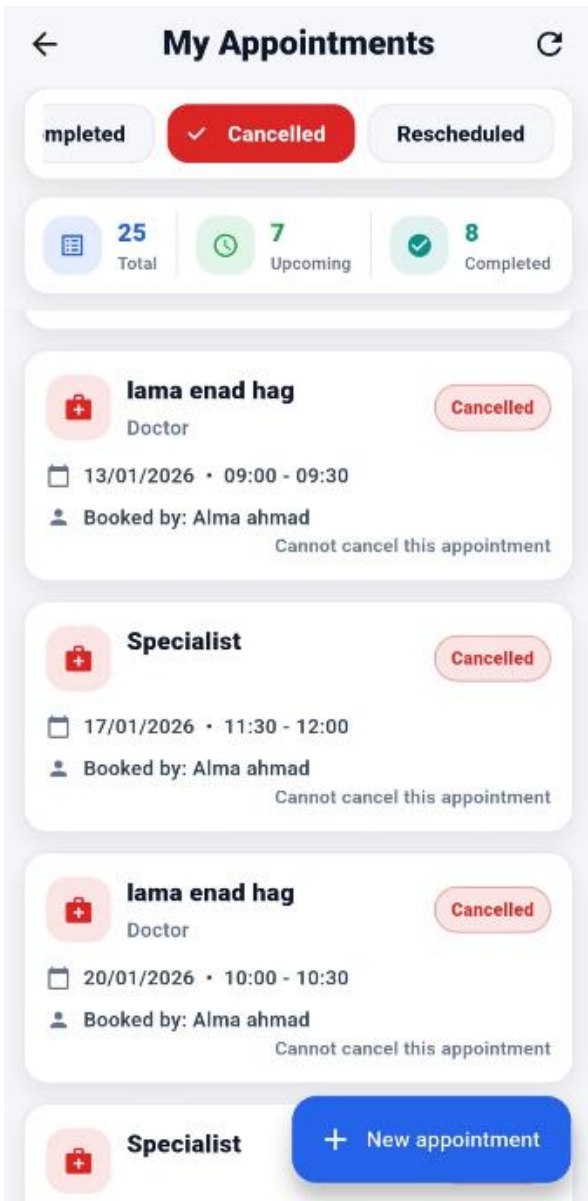
This approach ensures better time management, reduces scheduling conflicts, and provides users with full control over their appointments.



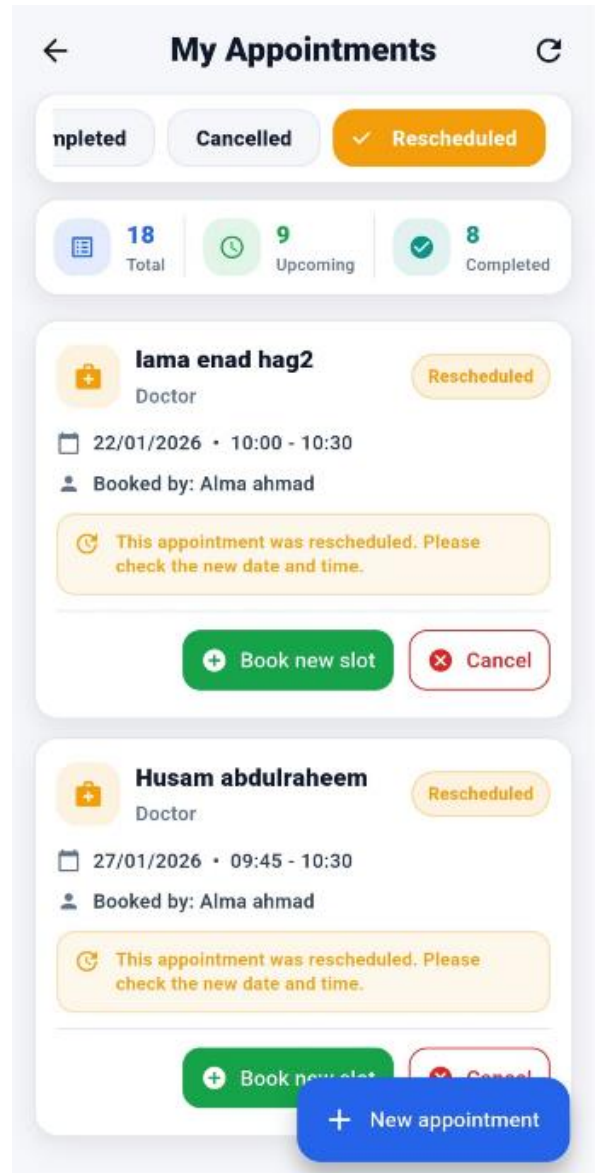
125 my appointments page1



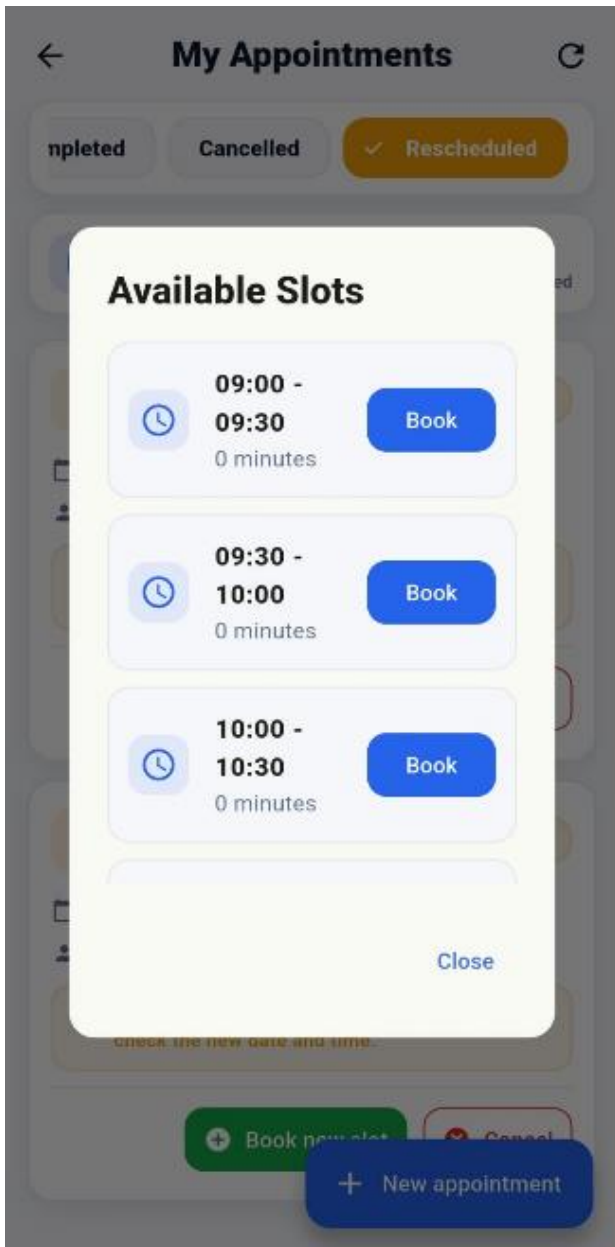
126my appointments page2



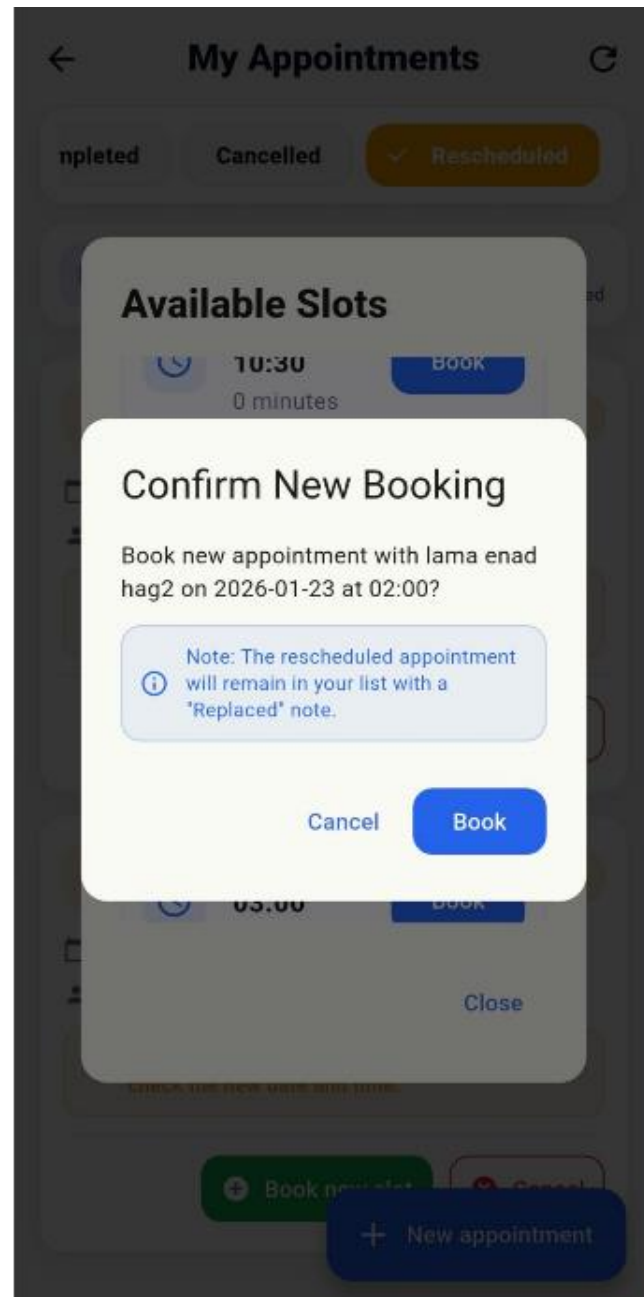
127 my appointments page3



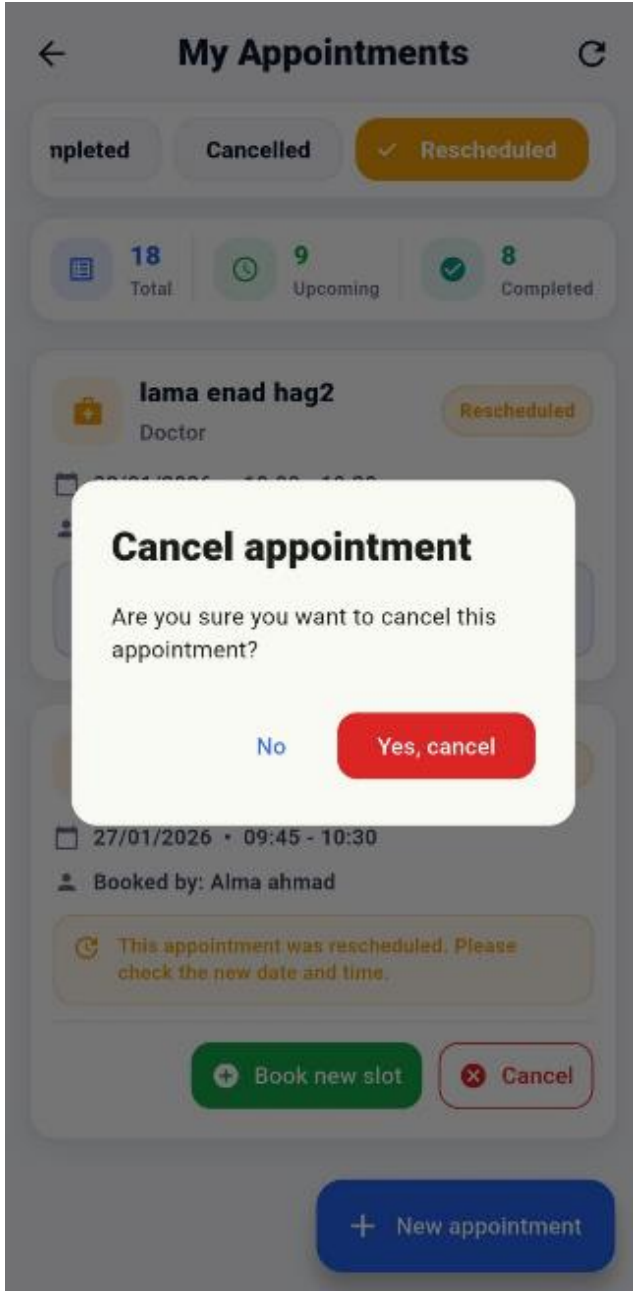
128 my appointments page4



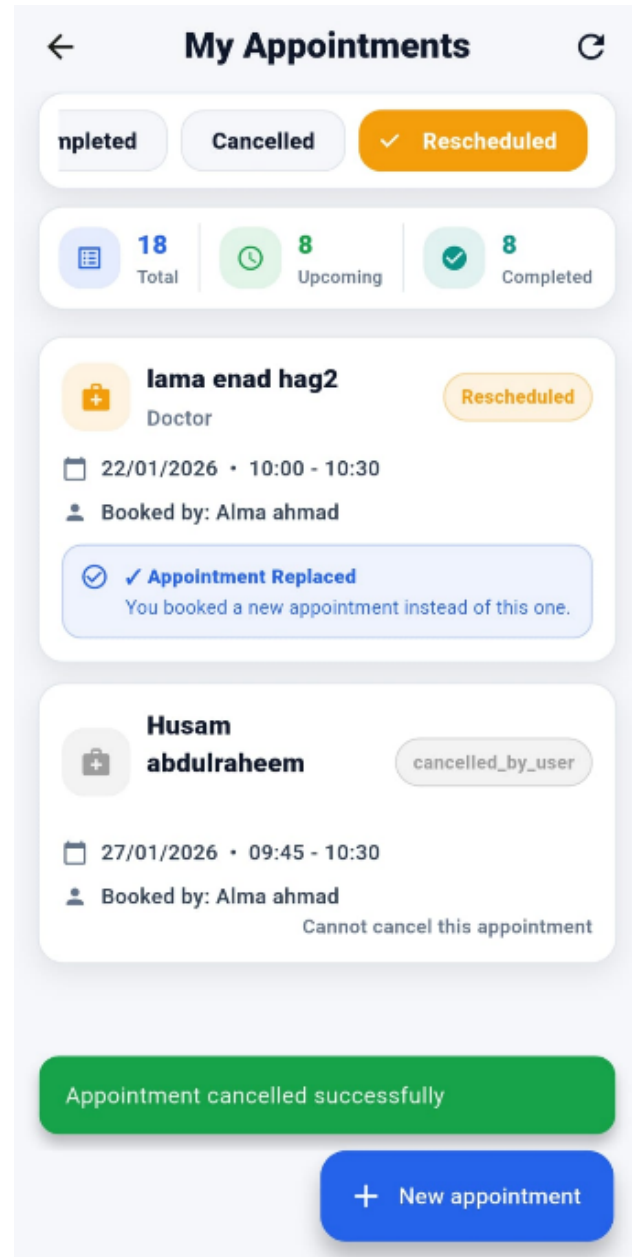
129 my appointments page5



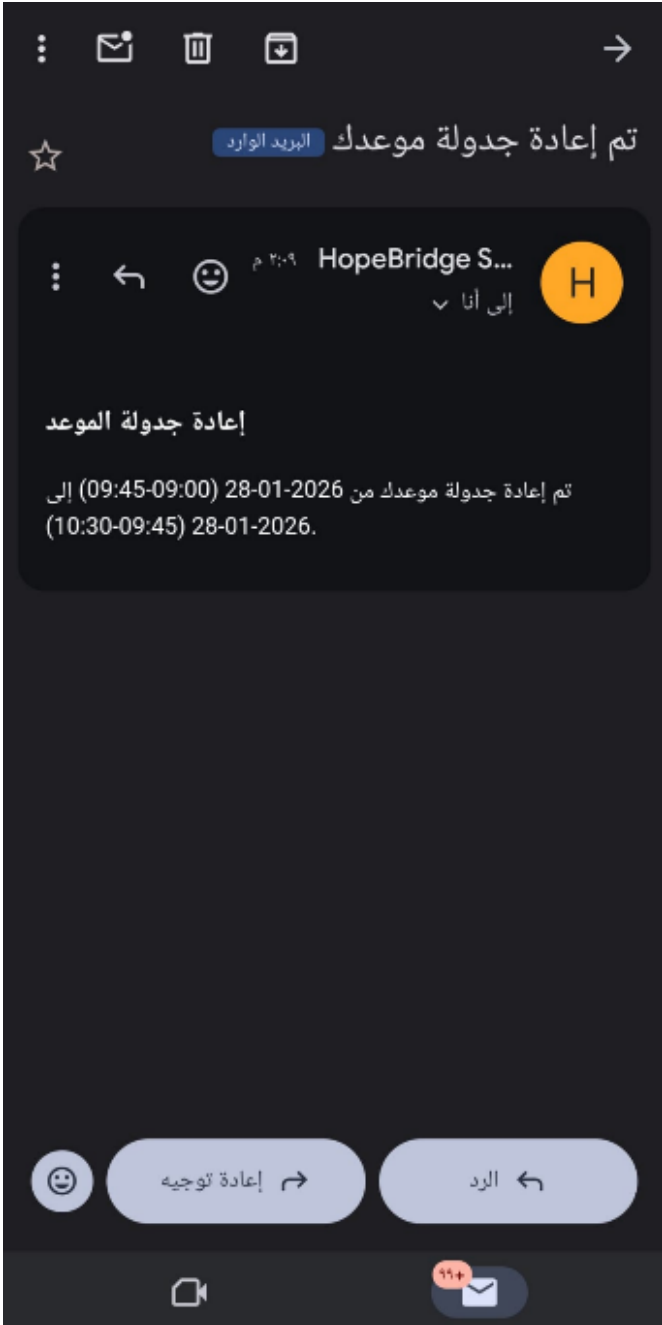
130 my appointments page6



131 my appointments page7



132my appointment page8



134 email when center reschedule appointment



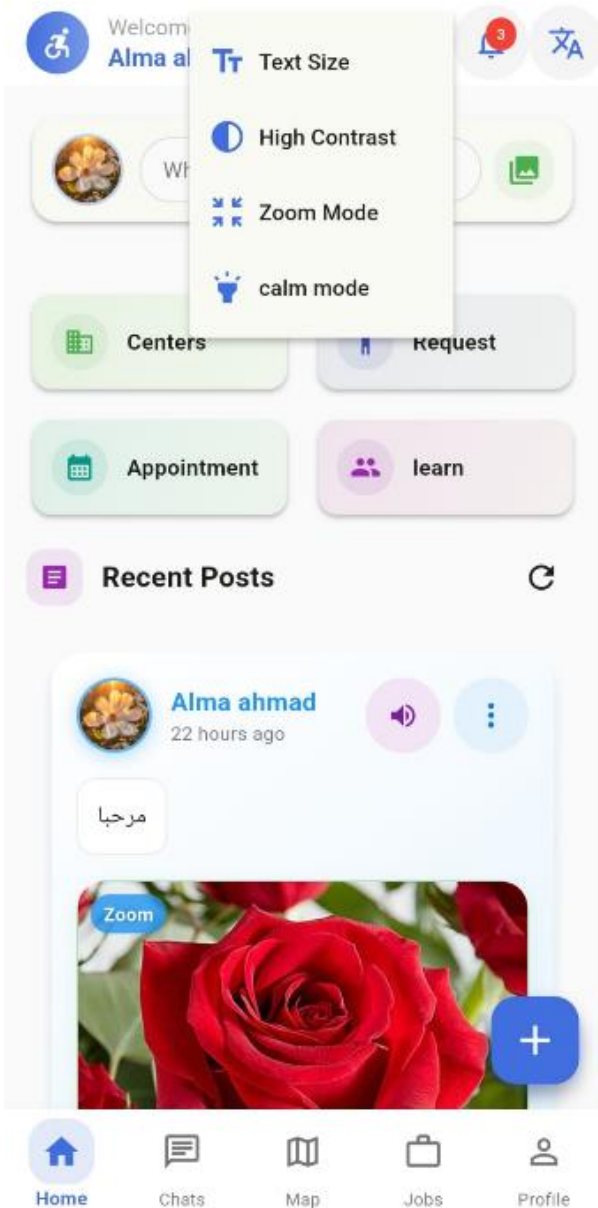
133 notifications

- Accessibility and Display Features

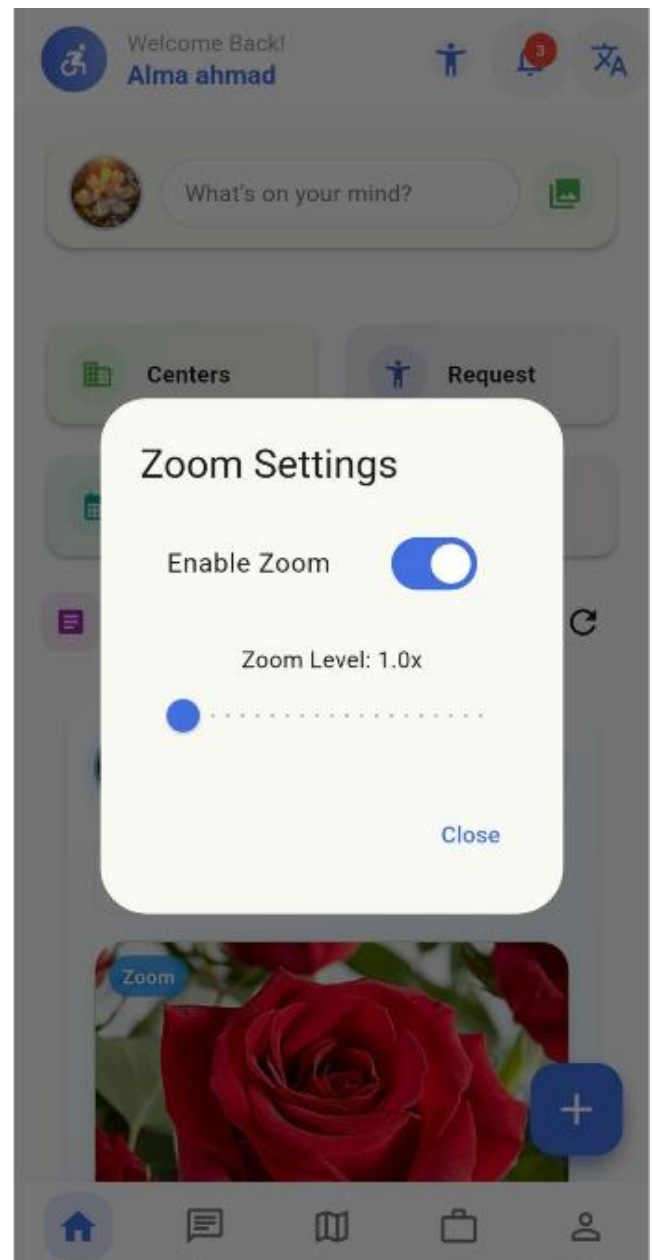
To enhance usability and ensure an inclusive experience, the system provides several accessibility and screen customization features for users with special needs.

Users can adjust the text size to improve readability, enable high contrast mode for better visual clarity, activate zoom mode to focus on specific screen elements, and use calm mode to reduce visual distractions and create a more comfortable interface.

These features allow each user to personalize the application according to their individual needs and preferences, ensuring a more accessible and user-friendly experience.

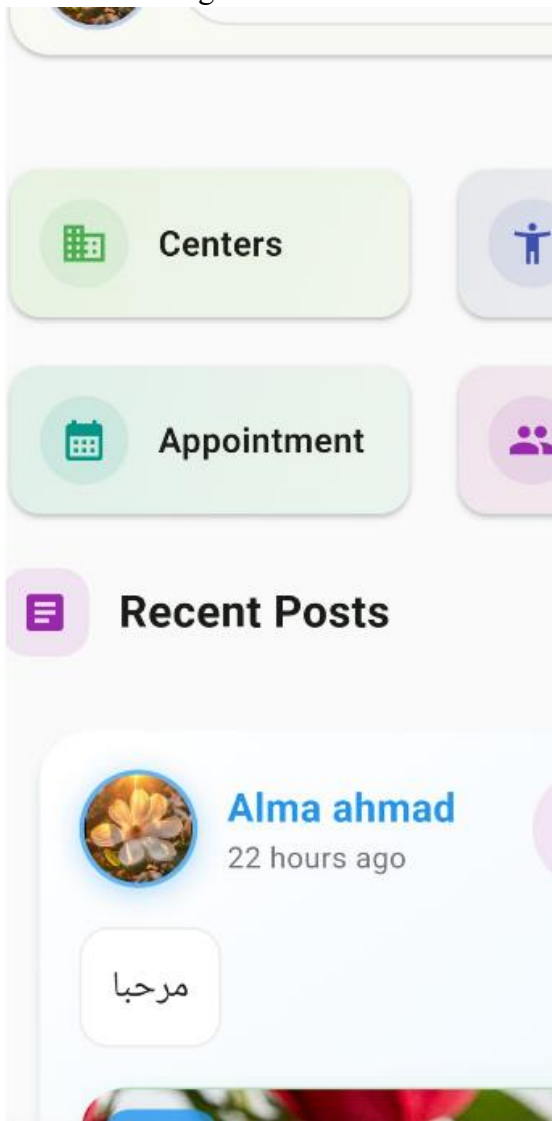


135Display Features page1

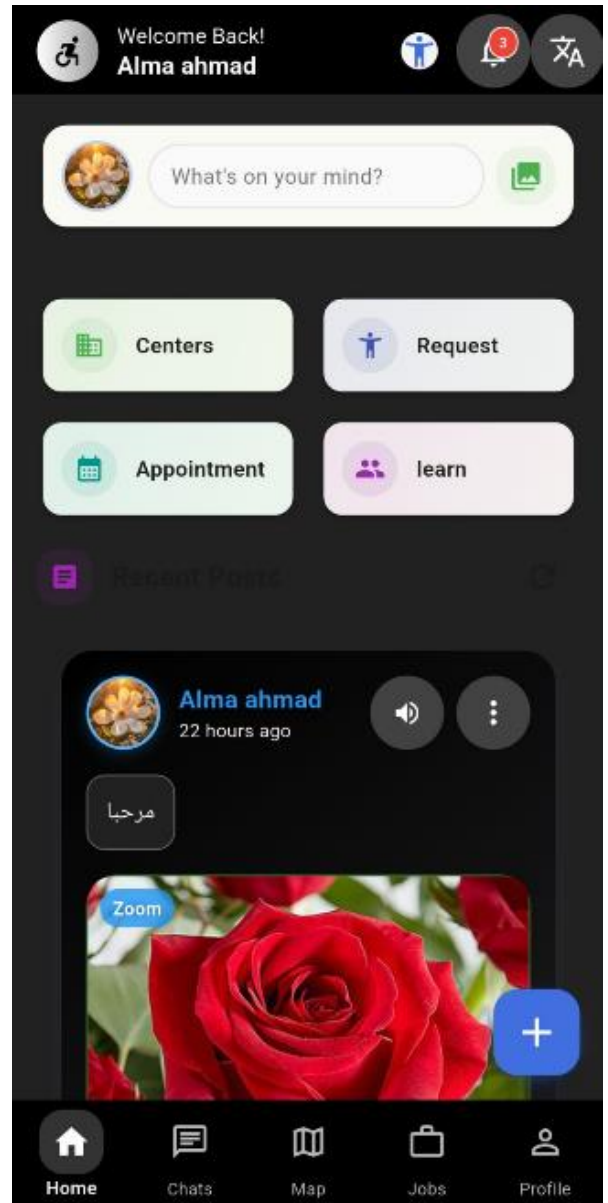


136Display Features (Zoom)page2

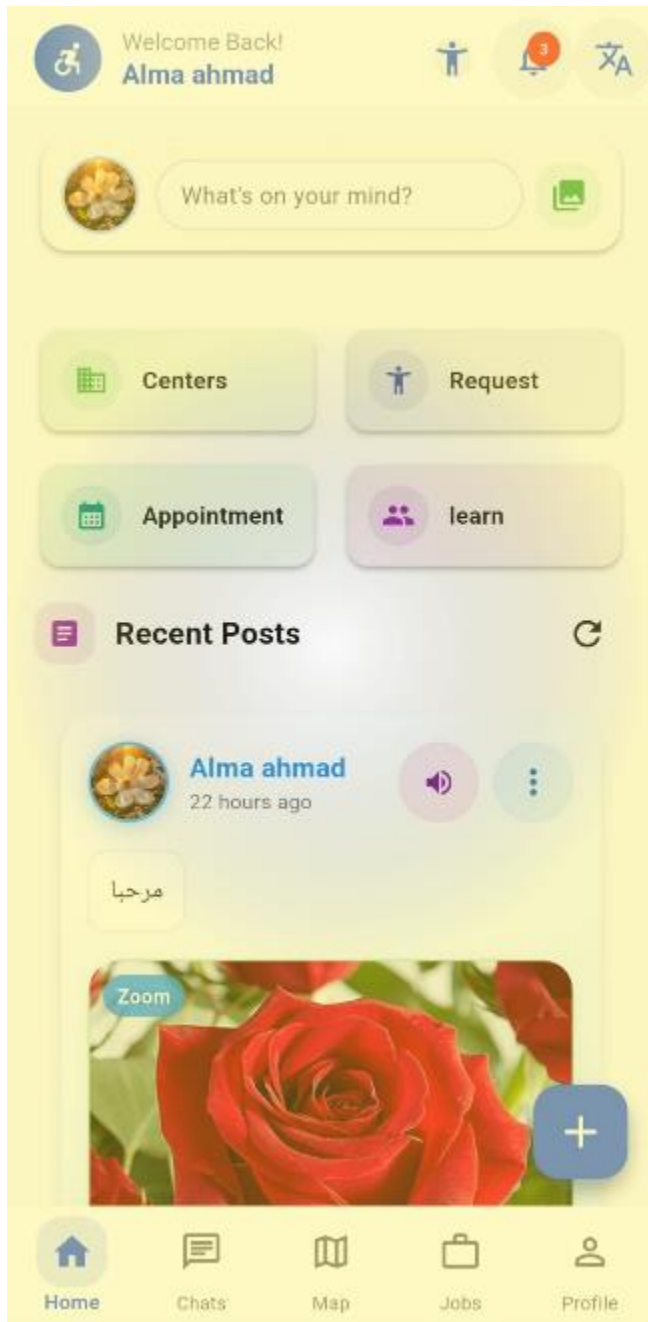
*Note : Use two fingers to zoom in/out. Double-tap with two fingers to reset



137 Display Features (Zoom) page 3



138 Display Features (contrast mode)

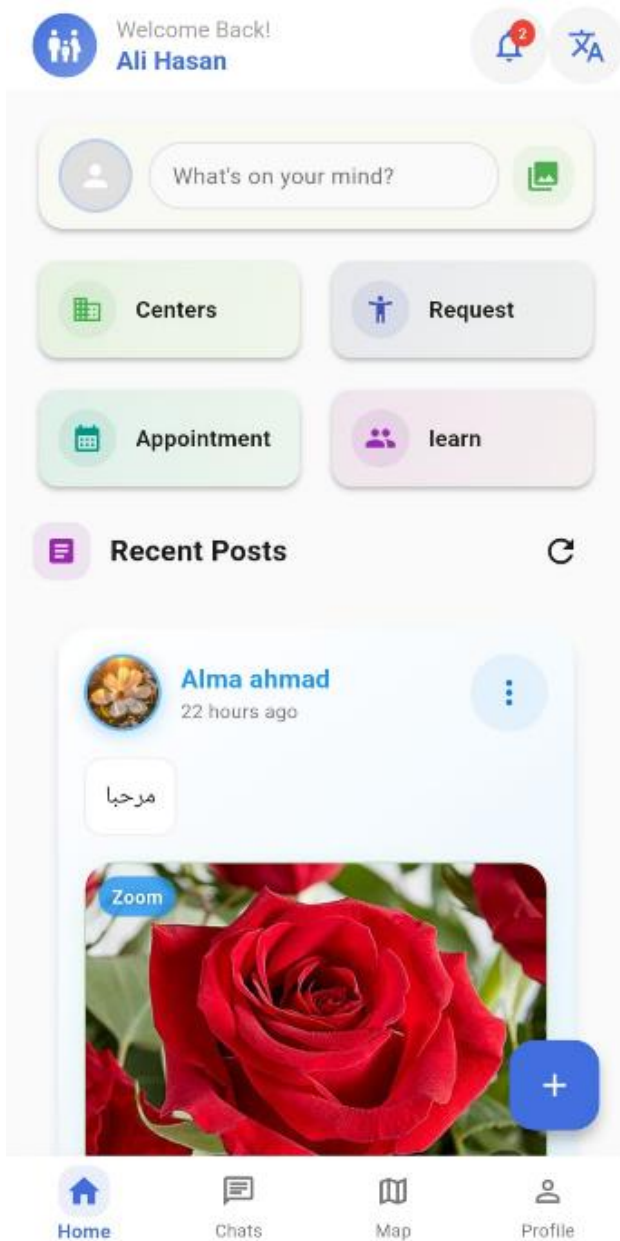


139Display Features (calm mode)

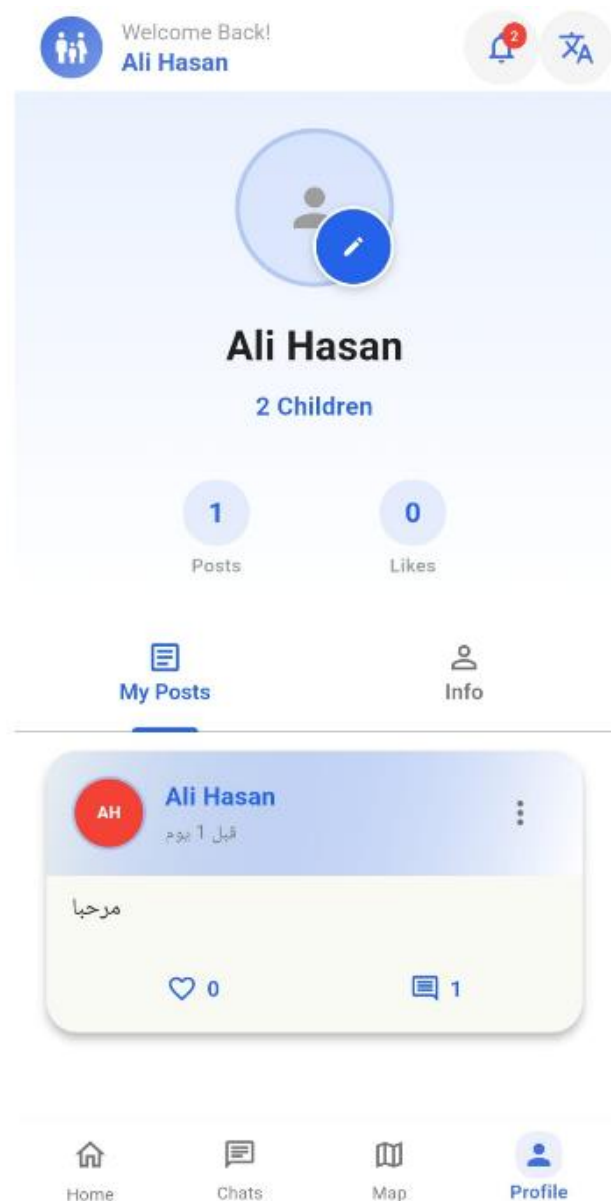
Parent features

The Parent user role provides the same functionalities available to users with special needs, including browsing specialists, booking appointments, viewing and joining events, managing volunteer requests, and tracking all appointments and activities within the system.

However, when a parent books an appointment with a specialist or joins an event, they are required to select the specific child for whom the service is intended. This ensures accurate scheduling, proper tracking, and personalized care for each child registered under the parent's account.



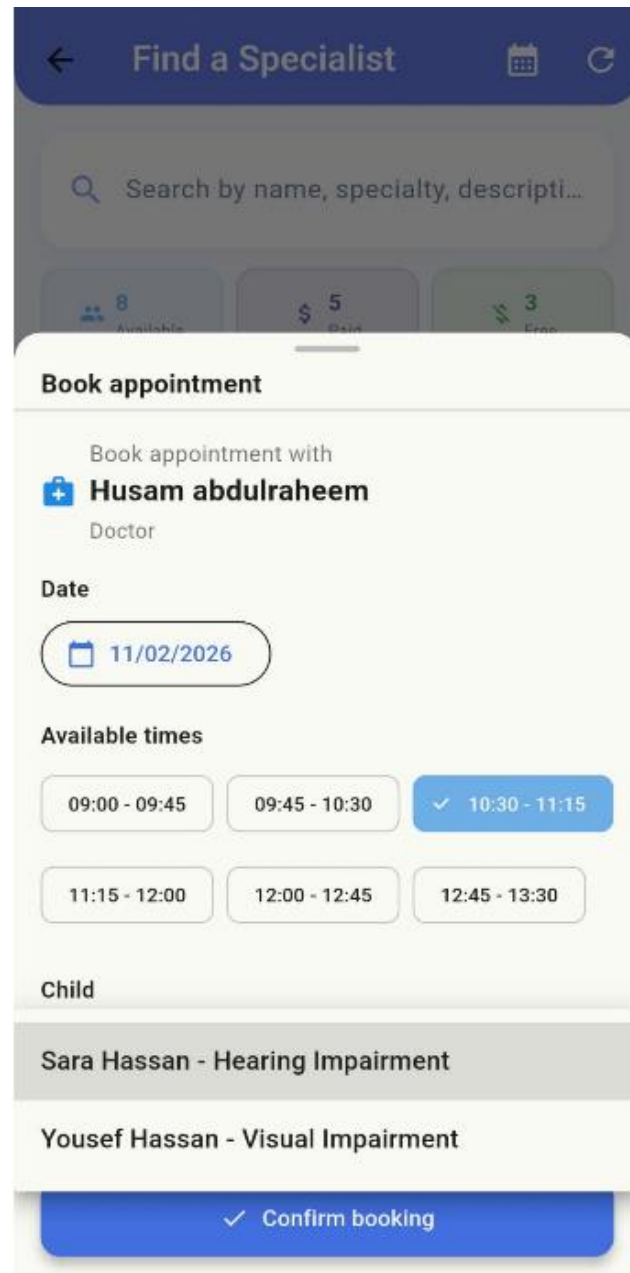
141parent dashboard



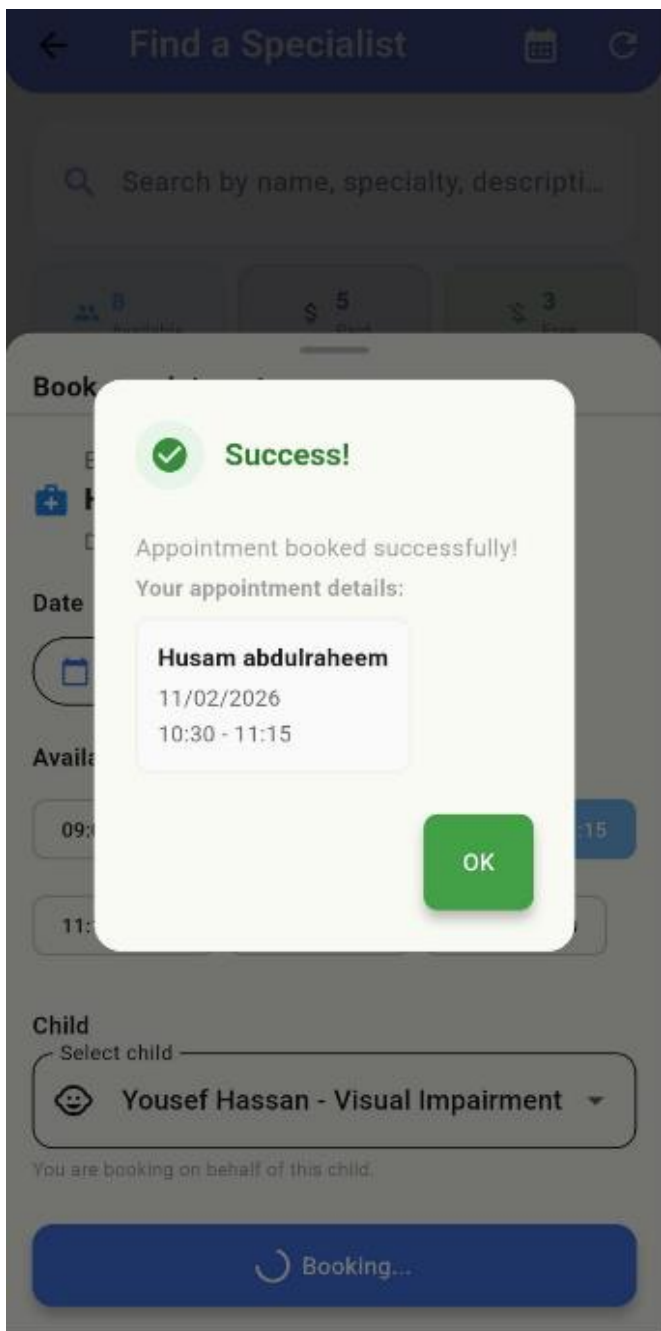
140parent profile



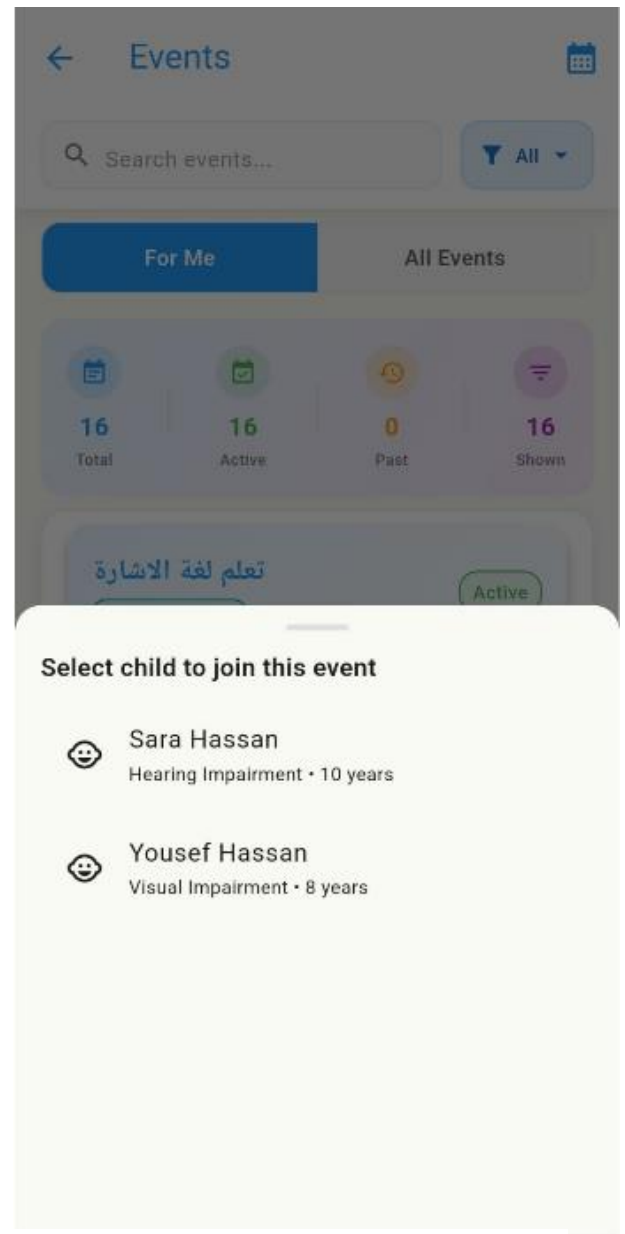
142 parent book appointment page1



143parent book appointment page2



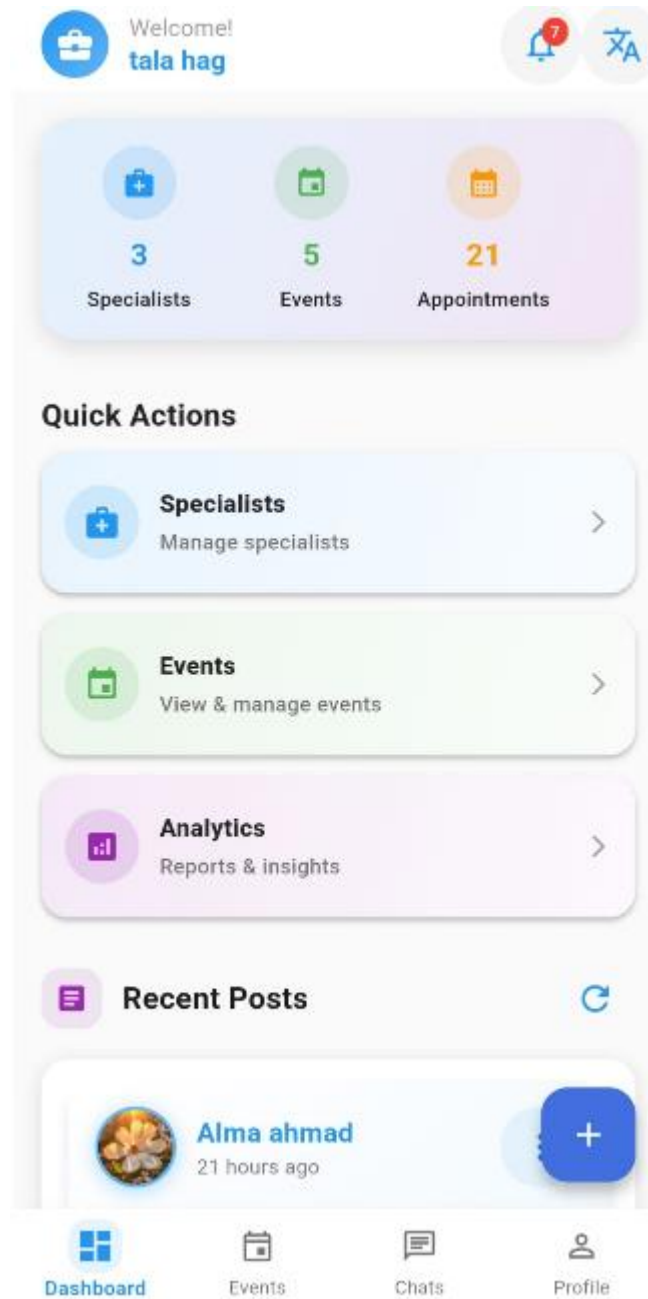
145 parent book appointment page3



144parent join event

Center features

The **Center Dashboard** provides a quick overview of the organization's main activities in a single screen. It displays **key statistics** such as the number of **specialists**, **events**, and **appointments**, giving the center a clear snapshot of its current status. The dashboard also includes **quick action shortcuts** to manage specialists, events, and view analytics, along with a section for **recent posts** to stay updated and engaged.



146 Center dashboard

- Centers and Events Management

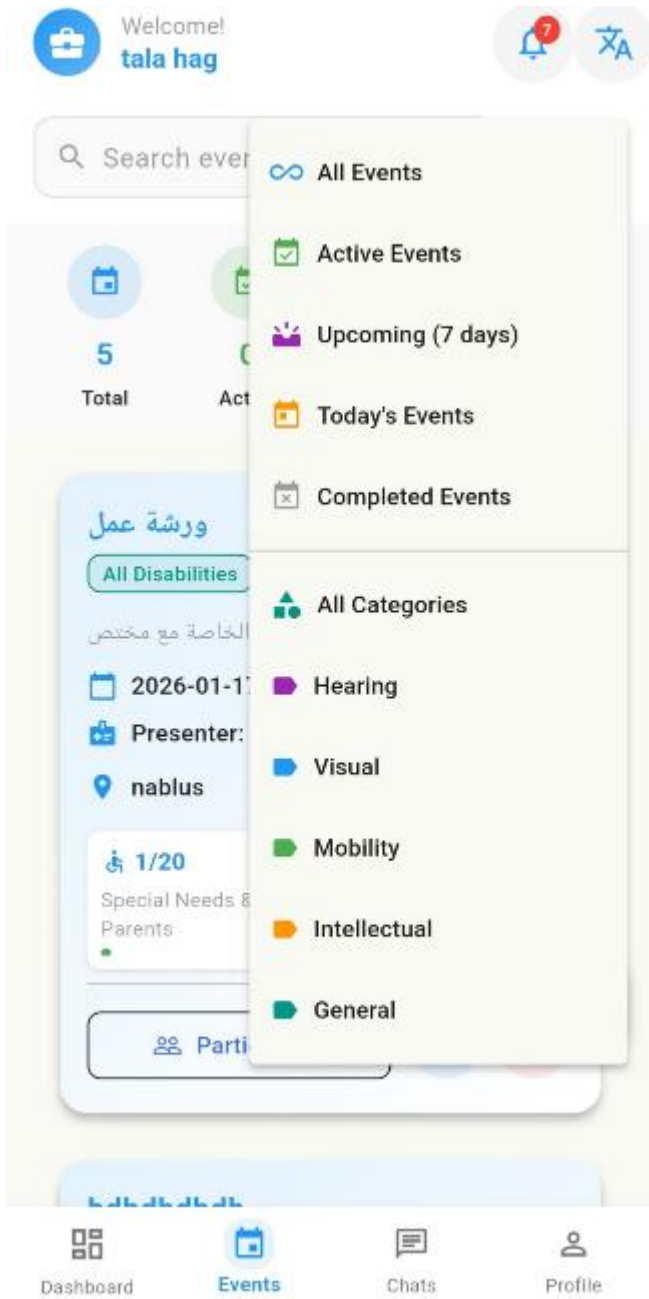
In HopeBridge, centers (organizations) can create and manage events to support the community and provide structured activities for users. Each event includes essential details such as title, description, date, and time, and is classified by a disability-related category (hearing, visual, mobility, intellectual, speech impairment, or all). In addition, events support multiple delivery formats through the event mode, which can be in-person, online, or hybrid. The system enforces clear validation rules: in-person events require a physical location, online events require a meeting link, and hybrid events require both.

Events can also include presenters, either internal presenters (specialists working within the same center) or external presenters (added by name). When an internal specialist is selected as a presenter, the system validates that the specialist belongs to the same center, is active, and is available based on their work type (permanent/temporary/scheduled). It also prevents scheduling conflicts with other events and optionally checks conflicts with existing specialist appointments. If conflict-check is disabled, conflicting appointments may be cancelled and the user receives a suggested next available slot whenever possible.

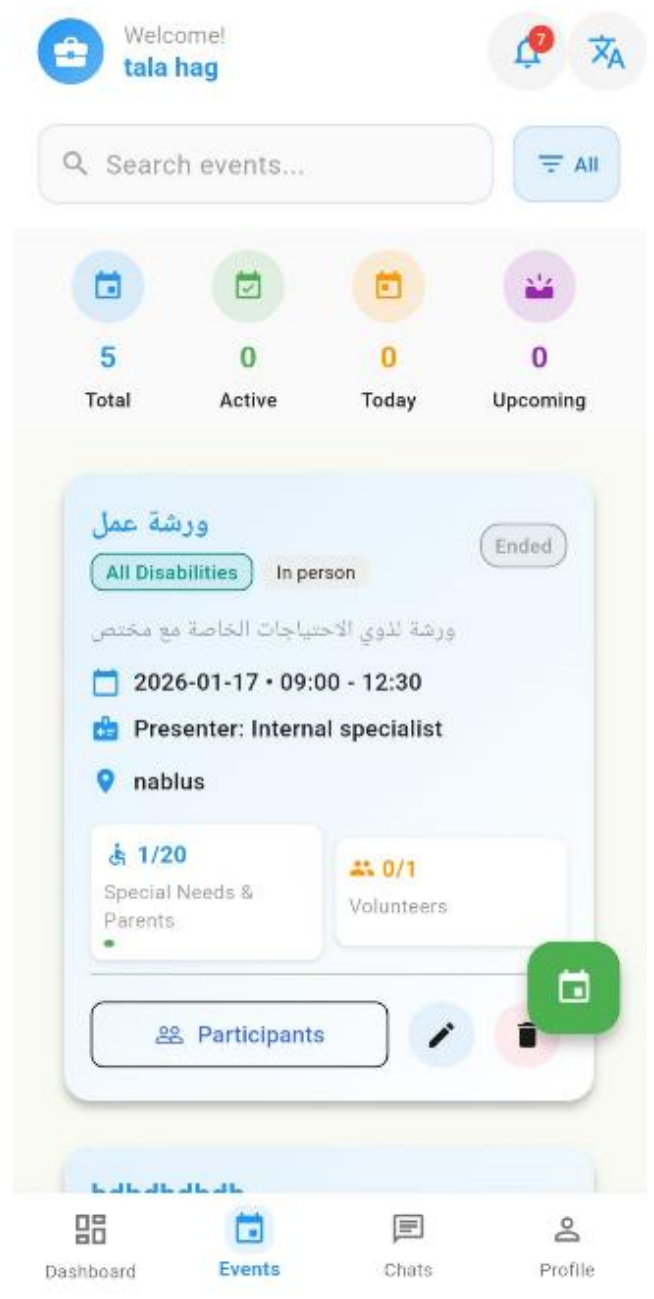
Centers can control who may attend the event using allowed user types (special needs users and/or parents), and they define the capacity using maximum seats for special needs and parents. In parallel, the event can request volunteers by specifying required volunteer skills and counts, and the system tracks accepted volunteers per skill. If the event reaches full capacity (either for attendees or volunteer slots), new registrations are still allowed but are placed into a waiting list. When a participant cancels their registration, the system automatically promotes the next suitable user from the waiting list (and prioritizes volunteers with the same required skill when applicable).

To enhance communication, each event can have an optional group chat created automatically when needed, where participants are added upon successful registration and removed upon cancellation. Throughout the event lifecycle, the system sends real-time in-app notifications to keep users updated. For example, users receive notifications when an event is cancelled, when they cancel their own registration, and when they are promoted from the waiting list to confirmed attendance. Additionally, if an event causes appointment cancellations (due to a specialist presenting during the same time), affected users are notified with the cancellation details and a suggested alternative slot when available.

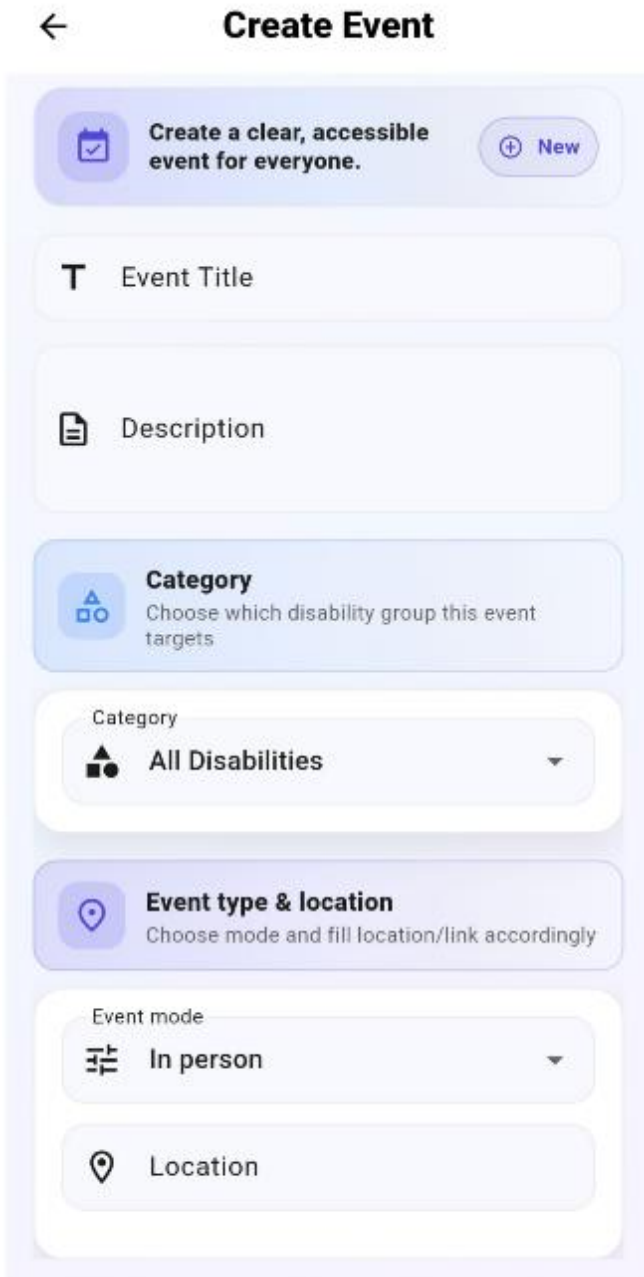
Finally, consistent with the platform's communication policy, if an event-related booking or participation is cancelled by any party, the system sends both an in-app notification and an email to the involved parties to ensure clear and reliable updates.



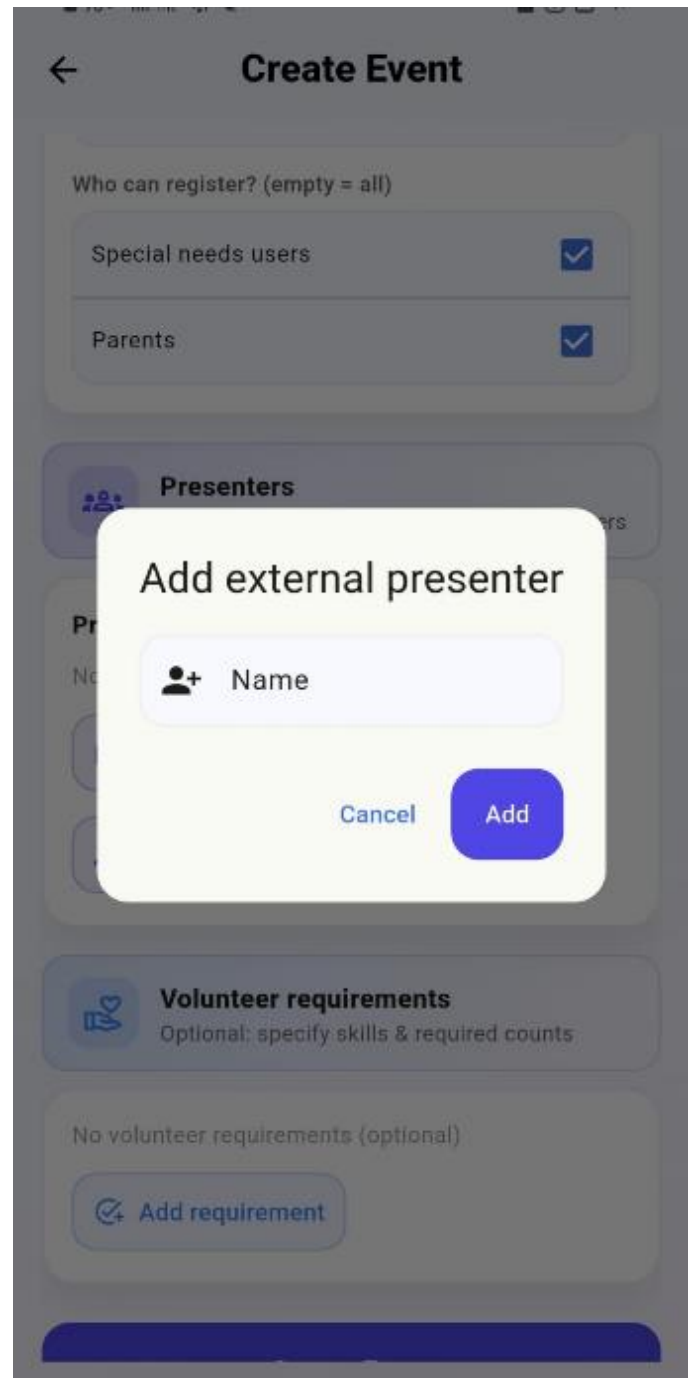
147 Center event page1



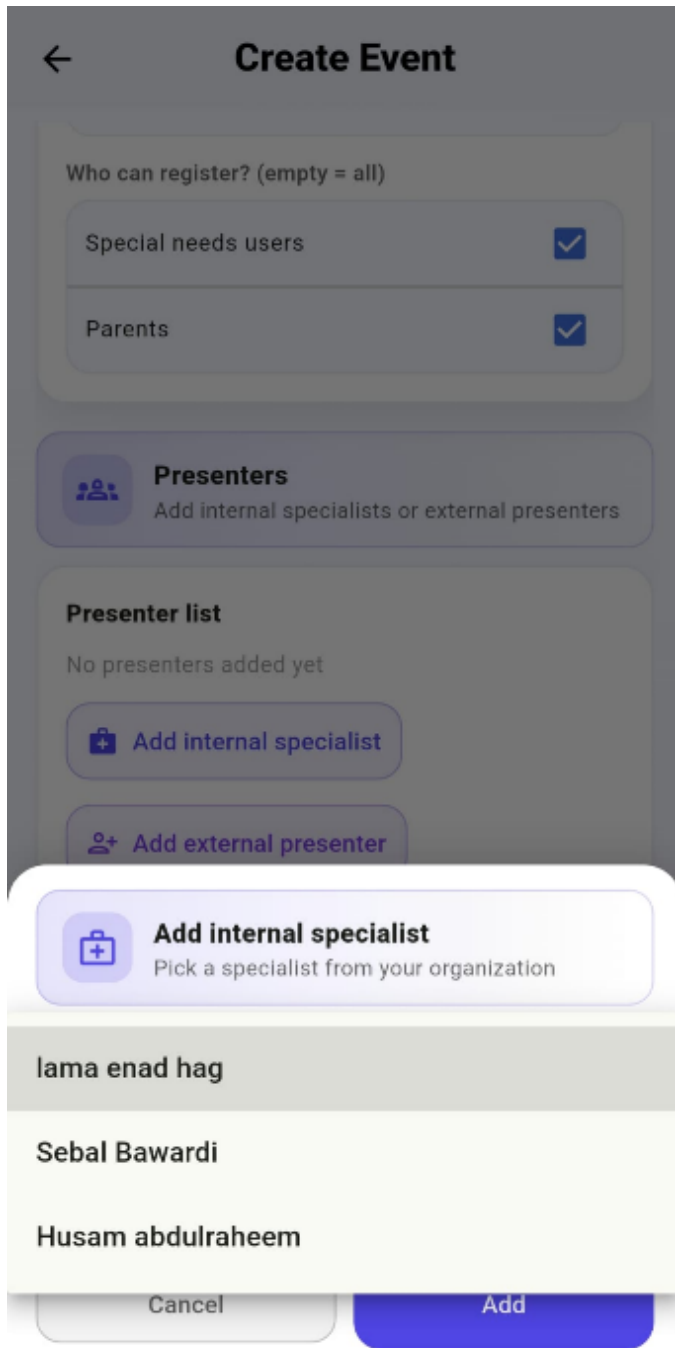
148 Center event page2



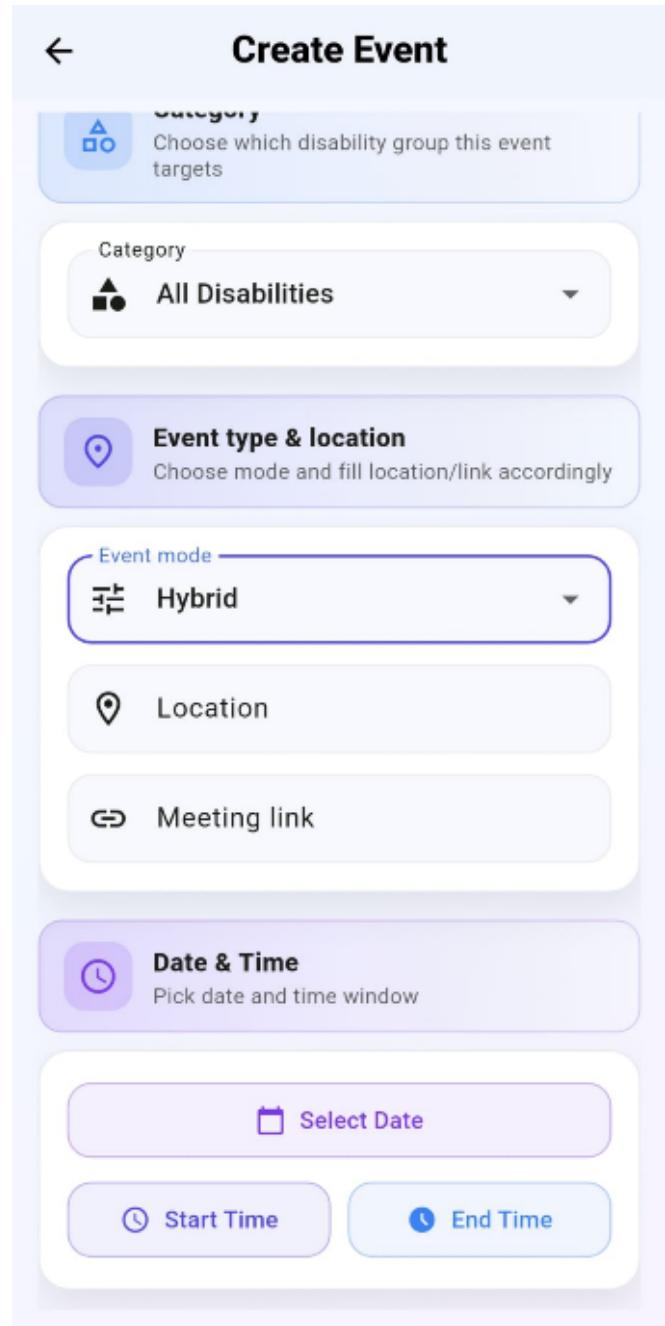
150Center create event page1



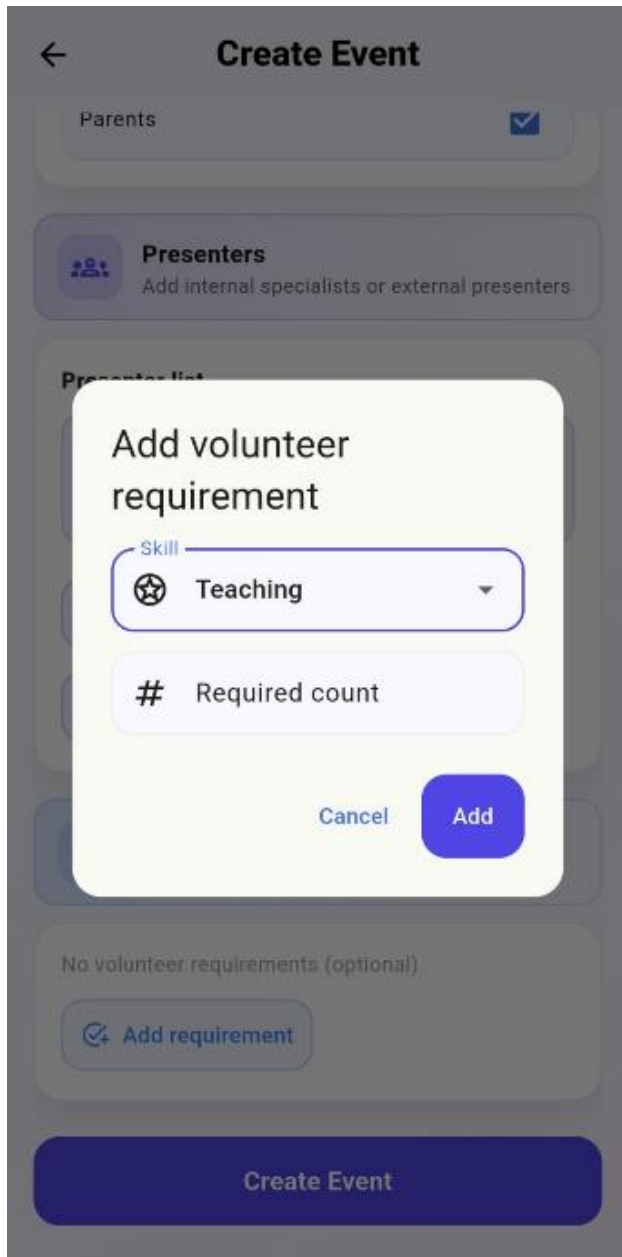
149 Center create event page2



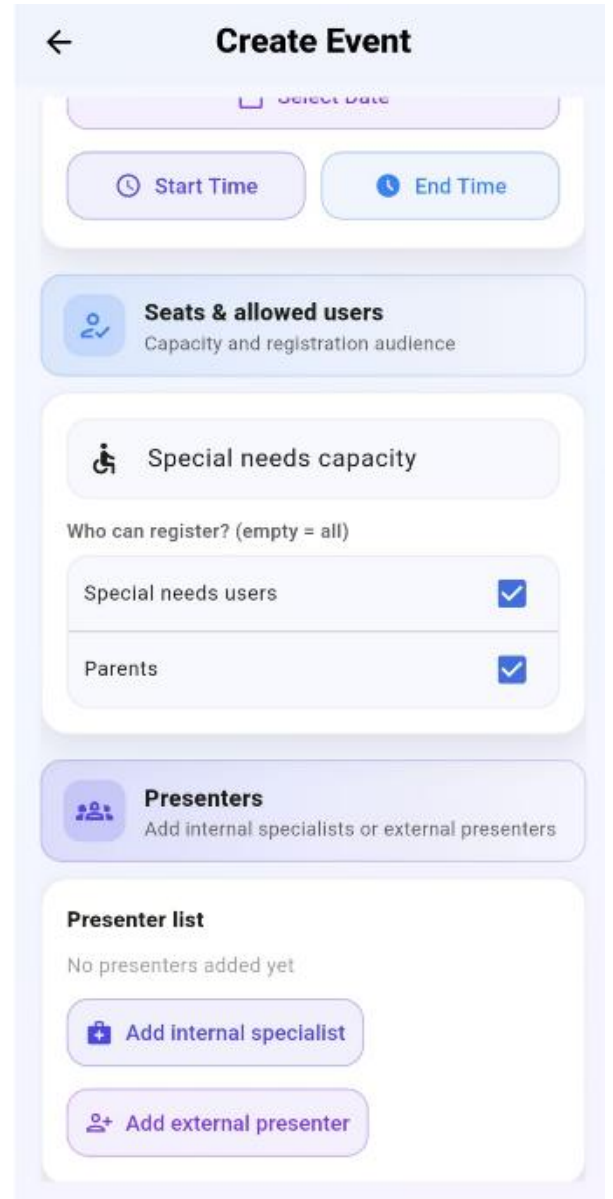
152 Center create event page3



151 Center create event page4



153 Center create event page5



154Center create event page6

Welcome! **tala hag**

Search events... All

6 Total 1 Active 0 Today 1 Upcoming

تعلم لغة الاشارة Active

All Disabilities In person

تعليم لغة الاشارة من الصفر للاحتراف لذوي الاحتياجات الخاصة وايانهم

2026-01-26 • 13:00 - 15:00

Presenter: lama enad hag

نابلس-جمعية بسمة أمل

5/5 Special Needs & Parents 0/2 Volunteers

1 in waiting list

Participants

Dashboard Events Chats Profile

Event Participants

Participants (5) Waiting List (1)

Special Needs & Parents (5)

- Ali Hasan Parent Confirmed
- وائل أحمد محمود Special Needs Visual Impairment Confirmed
- qusai ahmad Special Needs Multiple Disability Confirmed
- Fidaa Hadi Special Needs Physical Disability Confirmed
- Alma ahmad Special Needs Hearing Impairment Confirmed

Event Participants

Participants (5) **Waiting List (1)**

Special Needs & Parents (1) Waiting

- tamer ahmad Special Needs Visual Impairment Waiting

155 see event participants

- Center and Specialists Management

The platform enables organizations to efficiently manage their specialists through a structured and well-controlled system. Each organization can add specialists with different roles such as doctors, psychologists, physiotherapists, and speech therapists, while ensuring that all required professional information is provided and validated. For doctors, medical specialties are clearly defined, and each specialist is linked to the organization through a unique membership number to prevent duplication and maintain data integrity.

Specialists can work under different employment types, including permanent, temporary, or single-day scheduled work. Each specialist has a defined weekly schedule with clear working days and time ranges, and the system automatically validates these schedules to avoid invalid or overlapping time periods. When a specialist is associated with more than one organization, the platform ensures that their schedules do not conflict across organizations, preserving accurate availability for appointments and events.

Organizations can update specialist details at any time, such as schedules, work type, pricing, or descriptions, while maintaining strict rules to avoid conflicts or inconsistencies. Instead of permanently deleting specialists, the system uses a soft deactivation approach, allowing organizations to disable or reactivate specialists when needed. If a specialist is deactivated, all future appointments related to that specialist are automatically handled, and affected users are informed accordingly.

The system also supports transparency and quality assurance through a built-in rating mechanism. Users can rate specialists only after completing appointments, and the platform automatically calculates average ratings and total review counts. These ratings help other users make informed decisions when choosing specialists.

Overall, this module provides organizations with full control over their specialists while ensuring reliable scheduling, conflict prevention, clear communication, and a high level of service quality for all users on the platform.

← Specialists Management ↻

🔍 Search

All Roles

2 Filtered 0 Available

Sort by Name

Sort by Role

Sort by Date

Sort by Availability

Sort by Price

Ascending

Descending

🏥 lama e
Doctor
Member
General

☆ No ratings yet

📅 Temporary \$ Paid • 120

📅 11/1/2026 → 30/1/2026

general doctor for all type

Working Schedule

🕒 Sat 07:00 - 10:00 🕒 Fri 09:00 - 11:00

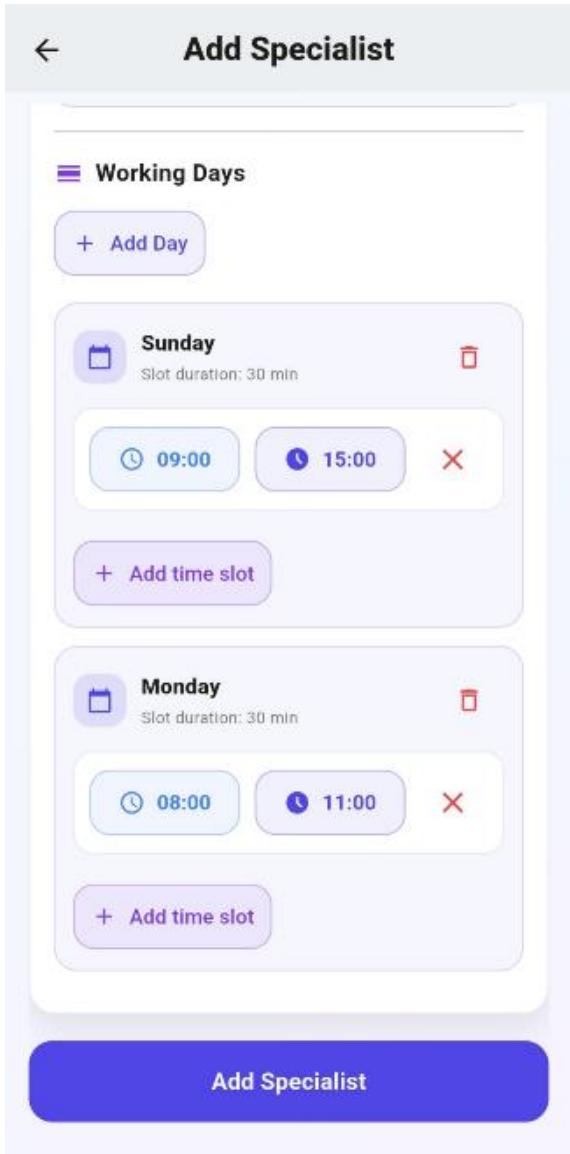
🕒 Fri 02:00 - 05:00

Added on 11/1/2026

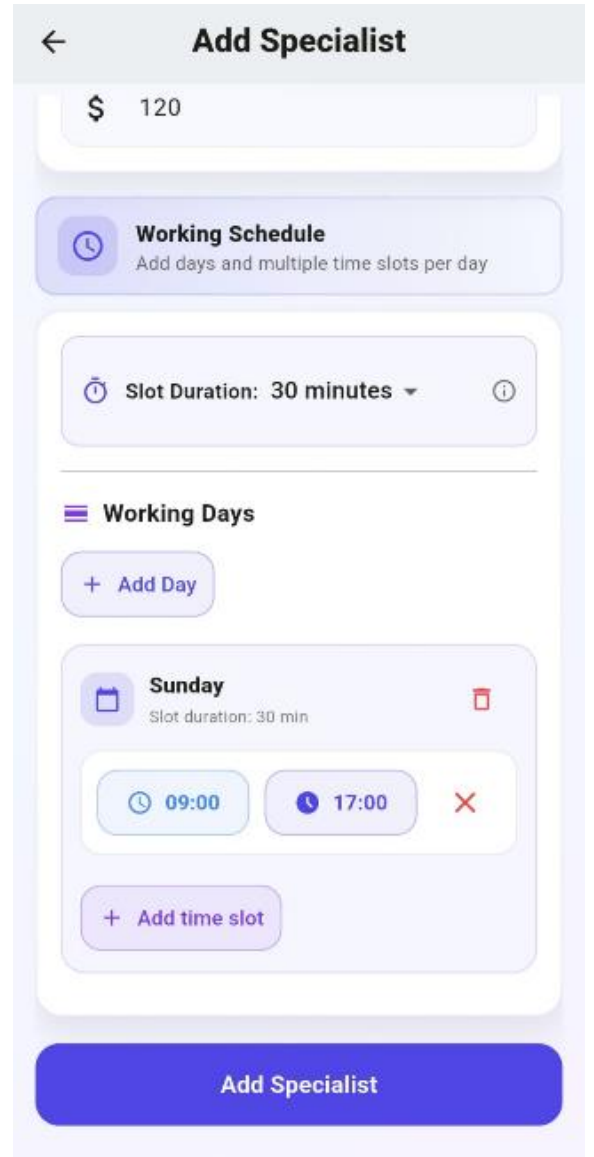
+ Add

🏥 الدكتور ليان حواري (● Busy)

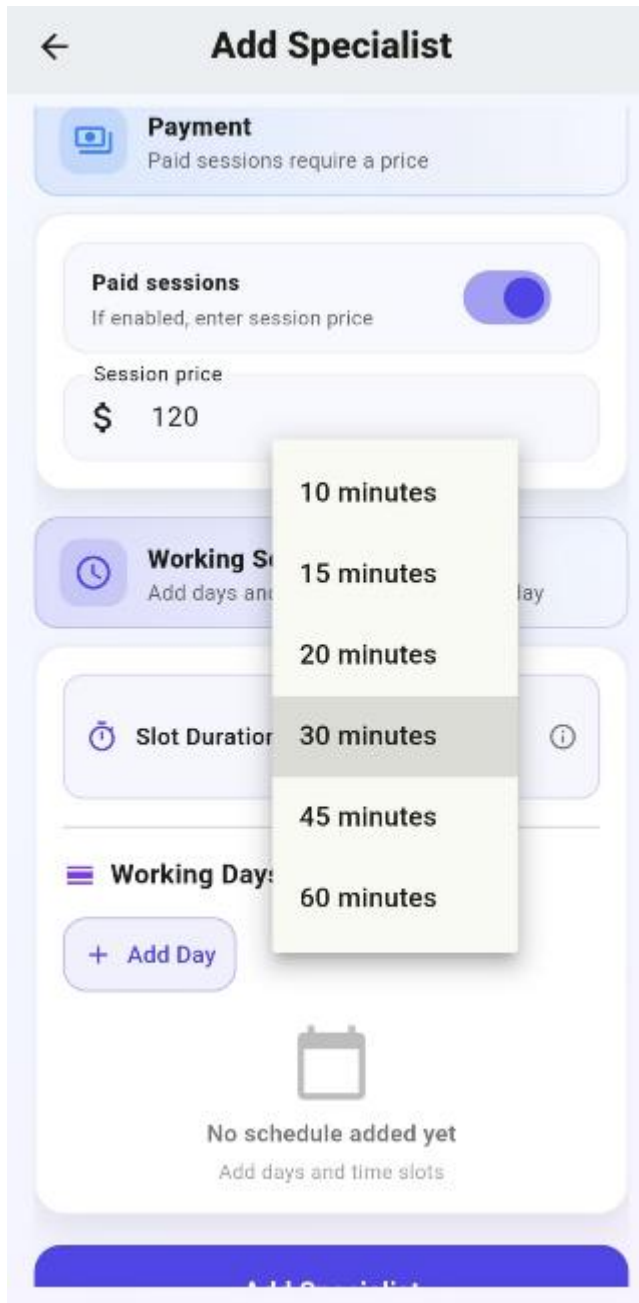
156 specialist management



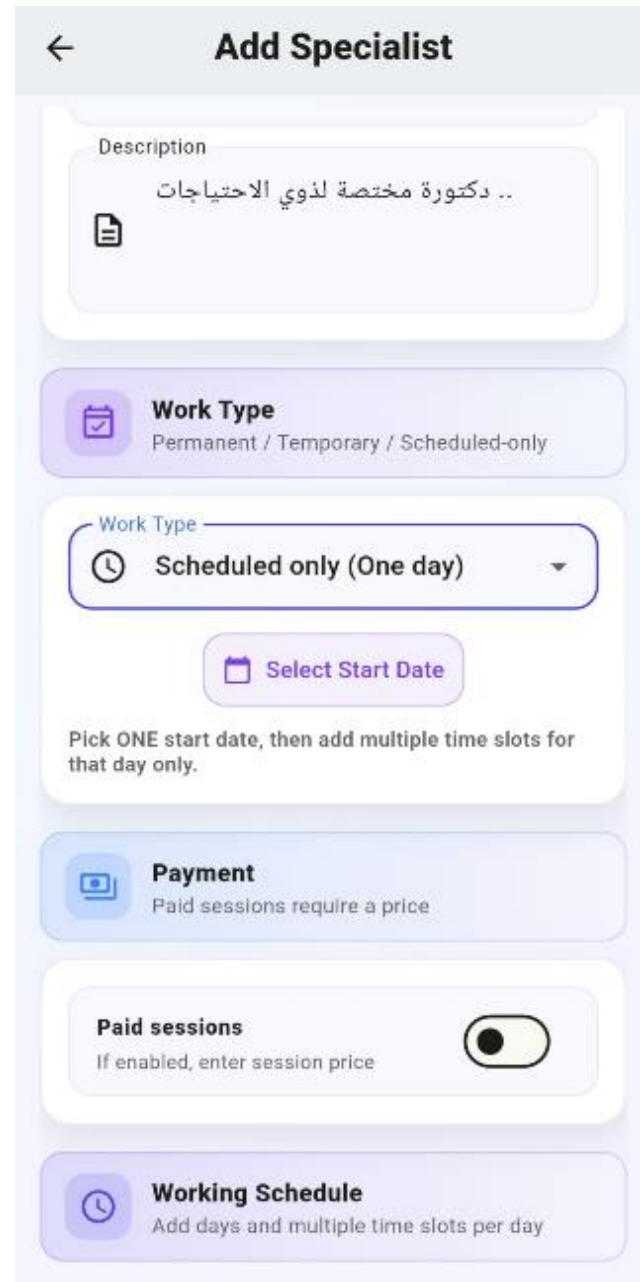
158add specialist page1



157 add specialist page2





160 add specialist page3\





159 add specialist page 4


← **Add Specialist**


 **Add clear working days & time slots for this specialist.**

 **Basic Information**
Name, email, role and membership number

Name
 الدكتور ليان حواري

Email
 layanodeh902@gmail.com

Membership Number
 6785

Role
 **Doctor**

Ophthalmology (Eyes)

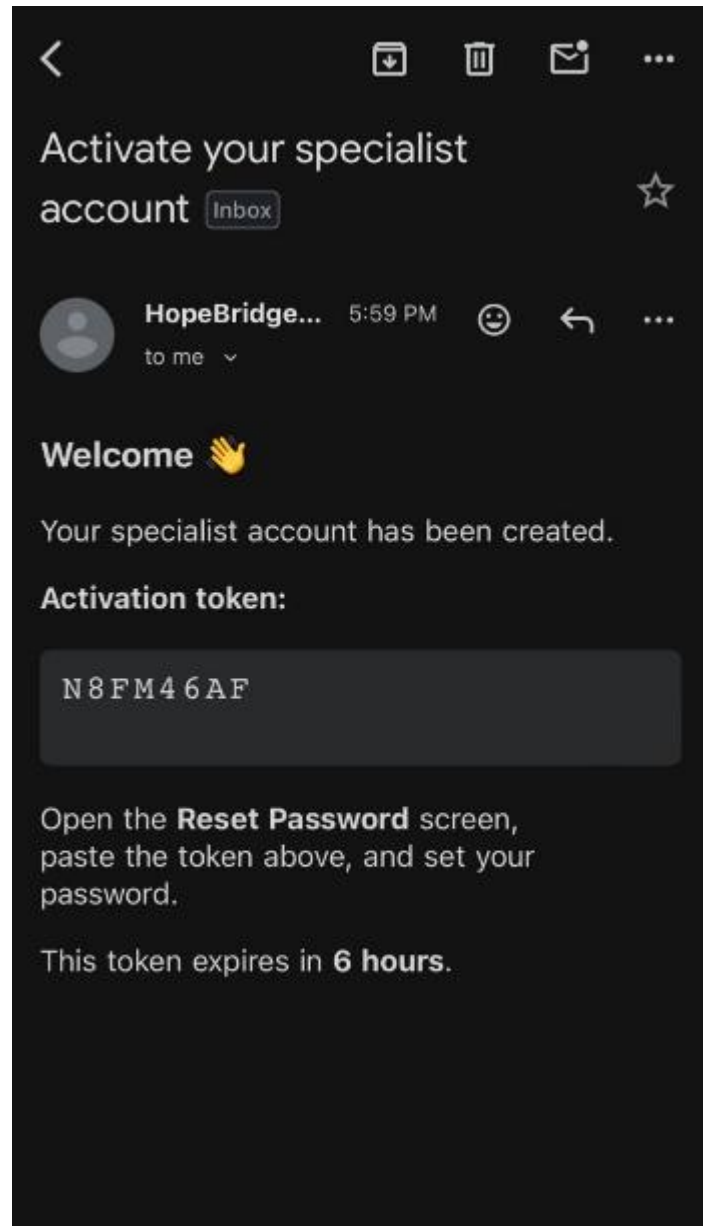
ENT

Neurology

General

 **Work Type**
Permanent / Temporary / Scheduled-only

161 add specialist page5



162 add specialist page6

Specialists Management

Search by name, role, de...

All Roles All All Work Types All

2 Filtered 0 Available 2 Unavailable 2 Paid 0 Free 2 Total

lama enad hag2 Busy

Doctor
Membership: 34200
General Doctor

No ratings yet

Temporary Paid • 120

11/1/2026 → 30/1/2026

general doctor for all type

Working Schedule

Sat 07:00 - 10:00 Fri 09:00 - 11:00

Fri 02:00 - 05:00

Added on 11/1/2026

+ Add

الدكتورة ليان حواري Busy

163 specialist & appointment management page1

Appointments - lama en...

Booked Completed Cancelled Res

3 Total (shown) 3 Upcoming 0 Completed 0 Cancelled

وائل أحمد محمود Booked

kxzqrvjb76@lnovic.com

27/01/2026 • 09:30 - 10:00

You can reschedule or cancel this appointment. The user will be notified about any changes:

Reschedule Cancel (center)

Reschedule appointment

New date

27/01/2026

Available times

09:00 - 09:30 10:00 - 10:30 10:30 - 11:00

The user will be notified about the new date and time.

Confirm

164specialist & appointment management page2

- Centers Statistics and Reporting System

HopeBridge provides an integrated statistics and reporting system designed to support centers in monitoring and evaluating their activities and performance. This system enables each center to access accurate, real-time insights about specialists, appointments, events, and volunteer participation, helping decision-makers improve planning and service quality.

The reporting system offers a comprehensive **overview dashboard** that summarizes key indicators, including the total number of specialists, active and inactive specialists, and overall appointment activity. Appointments are analyzed by status (booked, completed, rescheduled, and cancelled), with cancellation rates calculated to help centers identify operational challenges and improve scheduling efficiency. Specialist data is further organized by role and medical specialty, providing a clear picture of workforce distribution within each center.

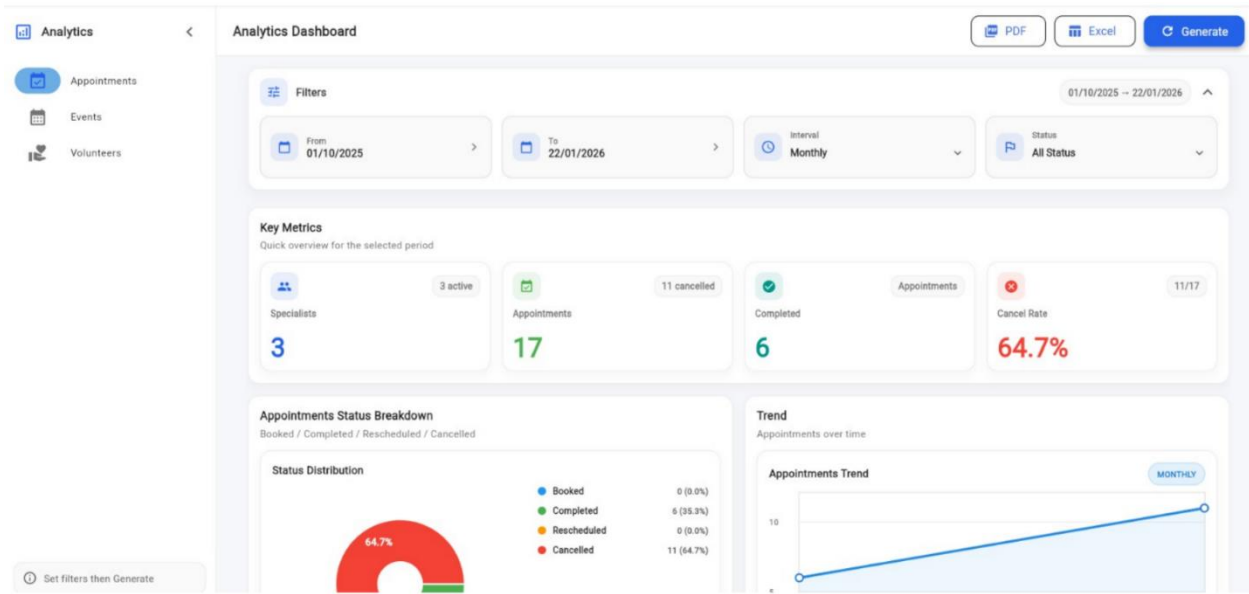
In addition, the system includes detailed **appointment analytics**, presenting aggregated statistics and temporal trends. Centers can review appointment distributions across different days of the week and track changes over time using daily, weekly, or monthly summaries. This allows administrators to identify peak periods, evaluate service demand, and optimize resource allocation. Performance insights are also provided at the specialist level, highlighting overall workload and completion patterns while maintaining fair and transparent evaluation.

The reporting module also covers **event management analytics**. Centers can view total events, distinguish between upcoming and past events, and analyze them by category and participation mode (in-person, online, or hybrid). Attendance statistics include the number of registered participants and those on waiting lists, with breakdowns by user type. This enables centers to assess event popularity, manage capacity effectively, and improve future event planning.

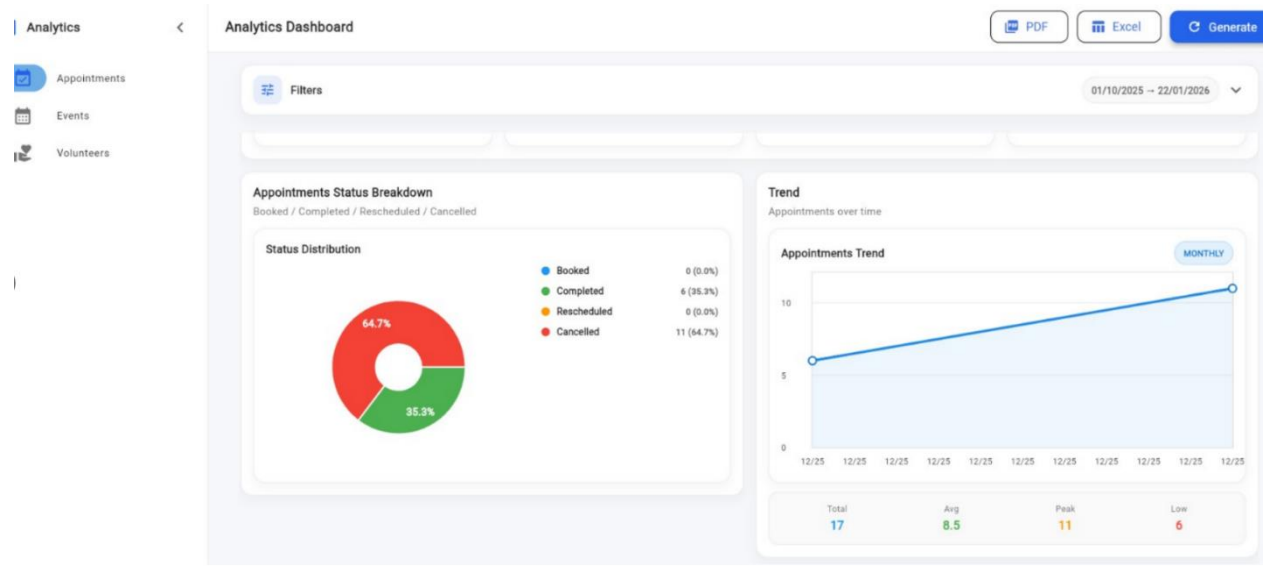
Volunteer engagement is another key component of the reporting system. The platform analyzes volunteer coverage by comparing required volunteer skills with actual participation levels. This helps centers identify shortages, evaluate coverage rates, and better coordinate volunteer recruitment and allocation for events and activities.

To support documentation and administrative needs, HopeBridge allows centers to **export reports** in structured formats suitable for sharing and archiving. Reports can be generated as professionally formatted spreadsheets or printable documents, ensuring that data can be easily reviewed, presented, or submitted to external stakeholders.

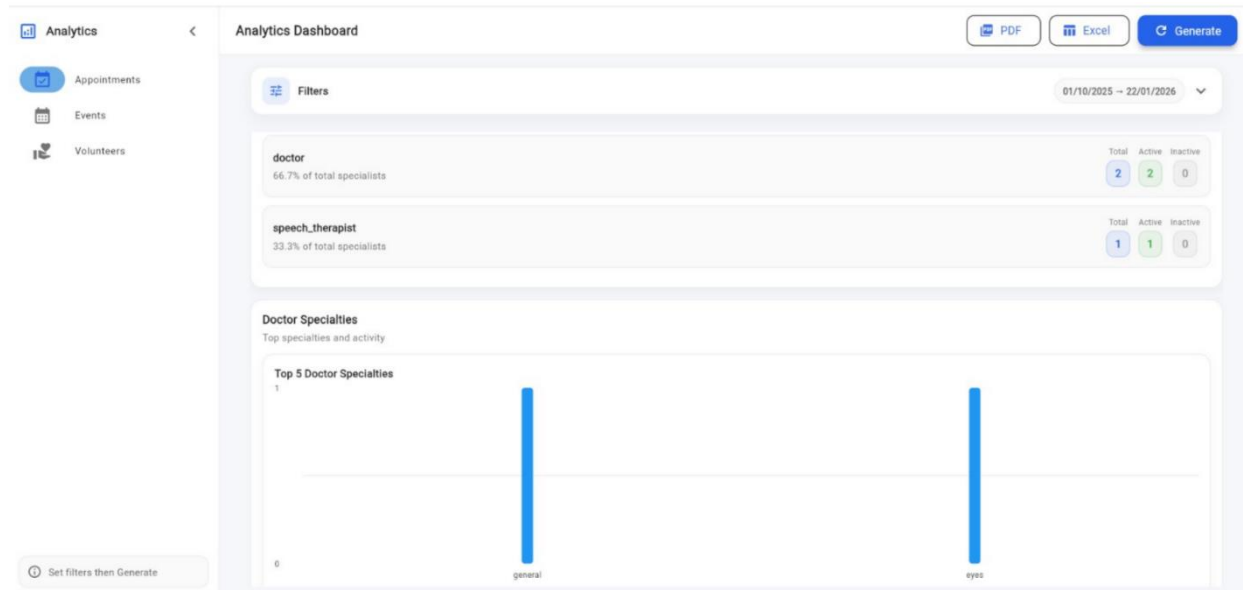
Overall, the statistics and reporting system in HopeBridge provides centers with a powerful analytical toolset that enhances transparency, supports data-driven decision-making, and contributes to improving the quality and efficiency of services offered to users with special needs.



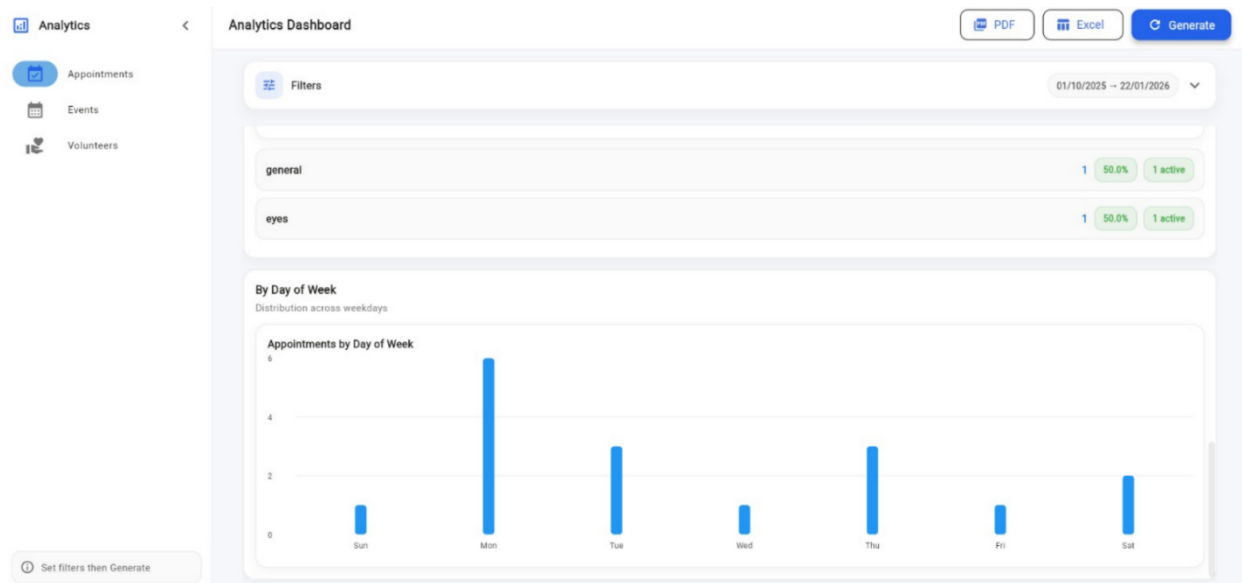
166 center analytics page1



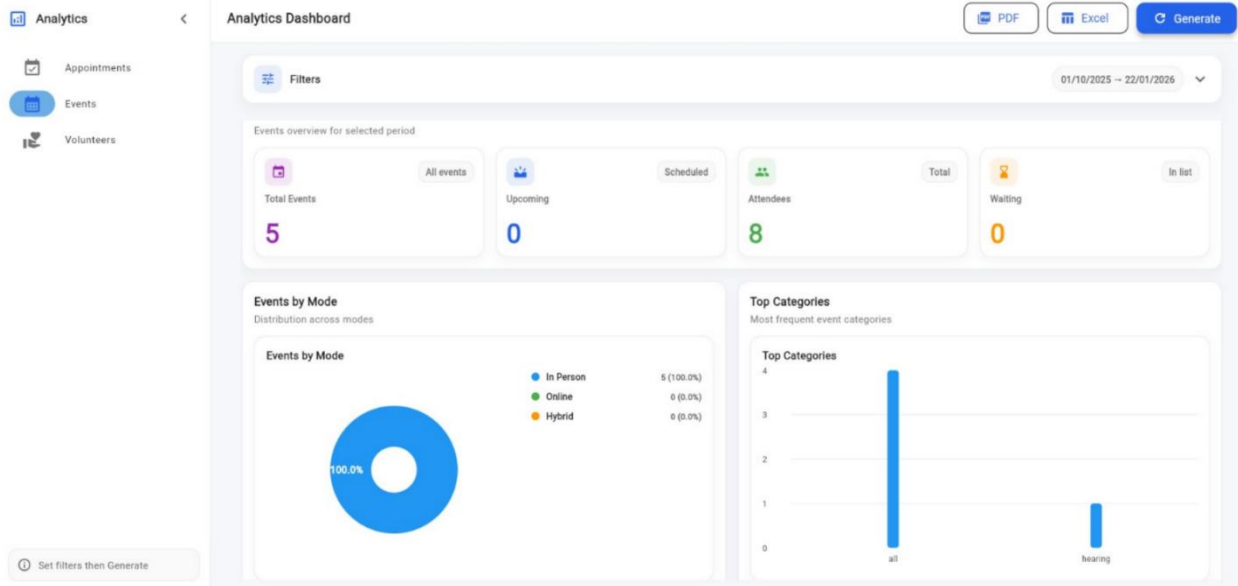
165 center analytics page2



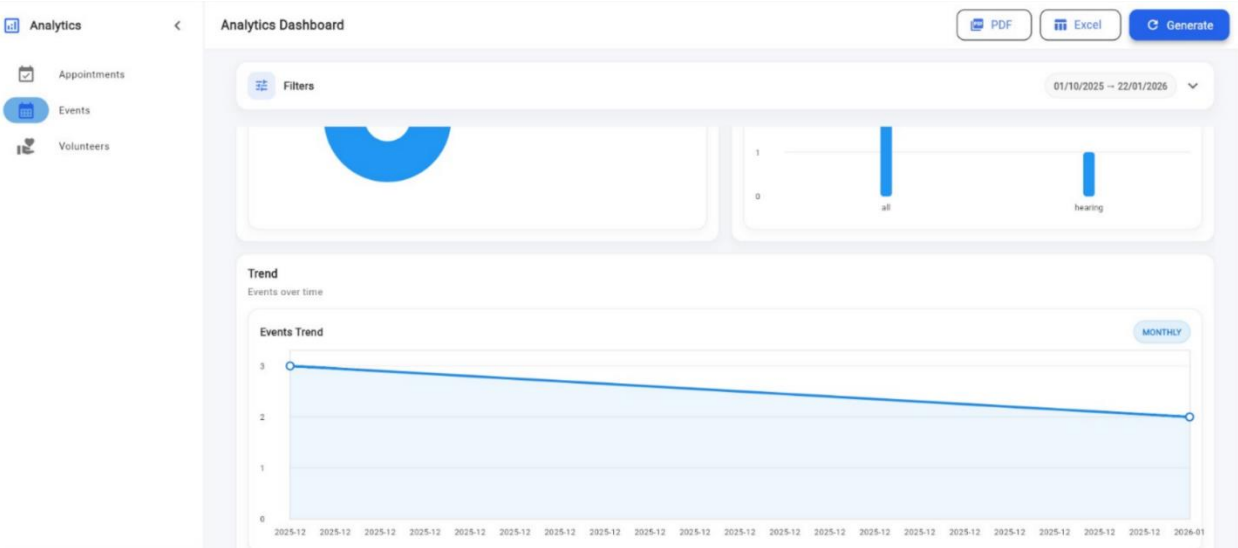
168 center analytics page3



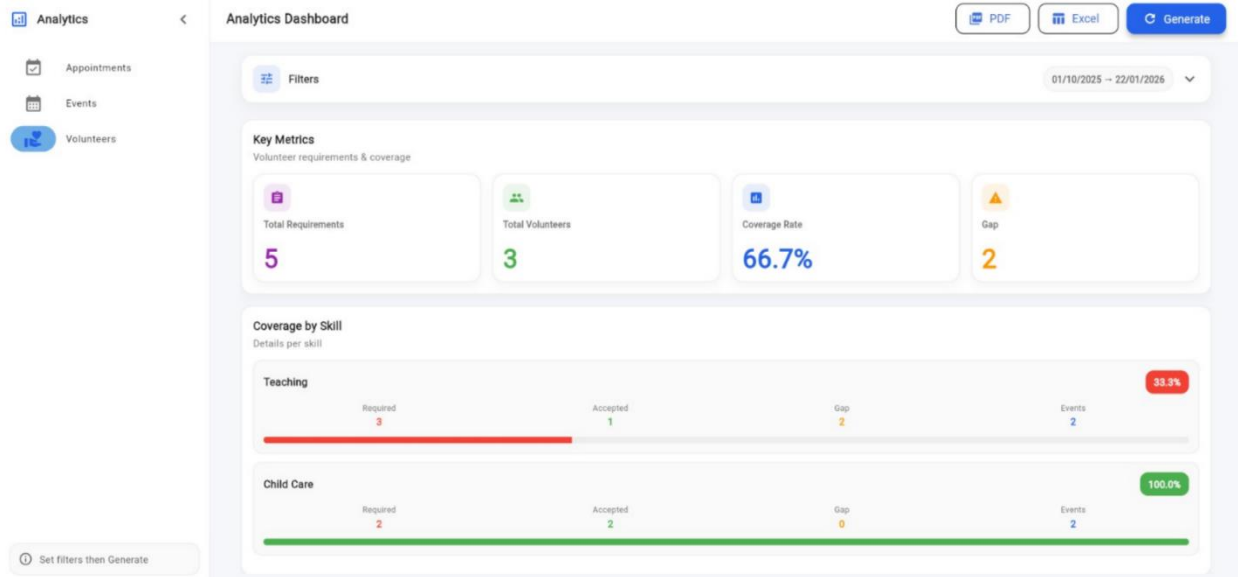
167 center analytics page4



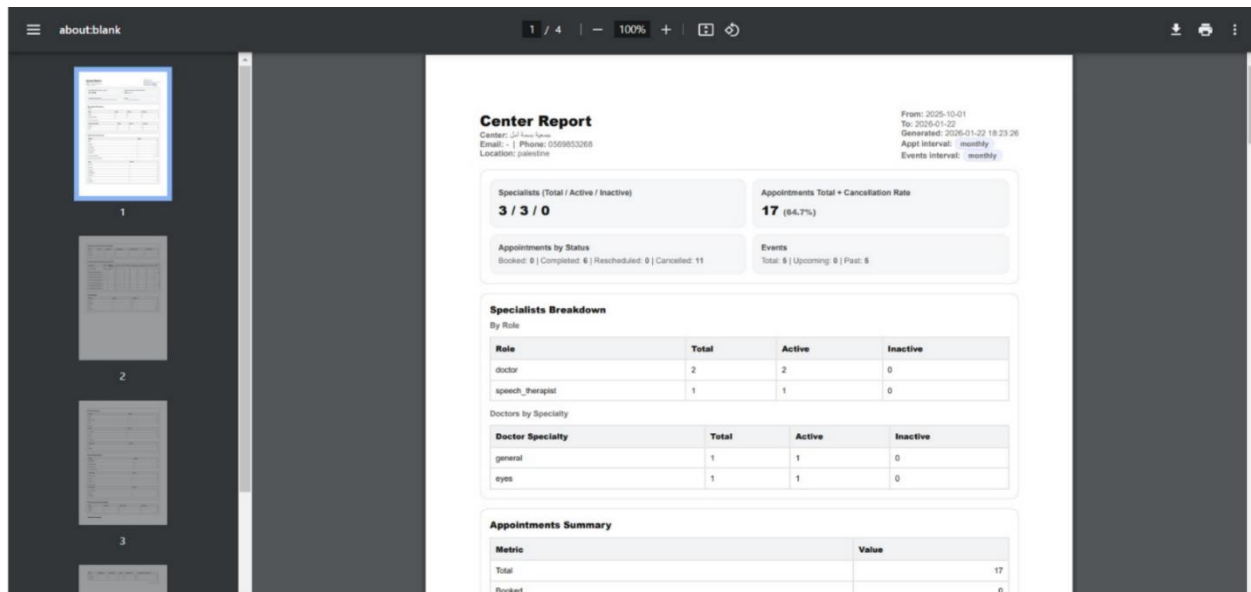
170center analytics page5



169center analytics page6



171center analytics page7

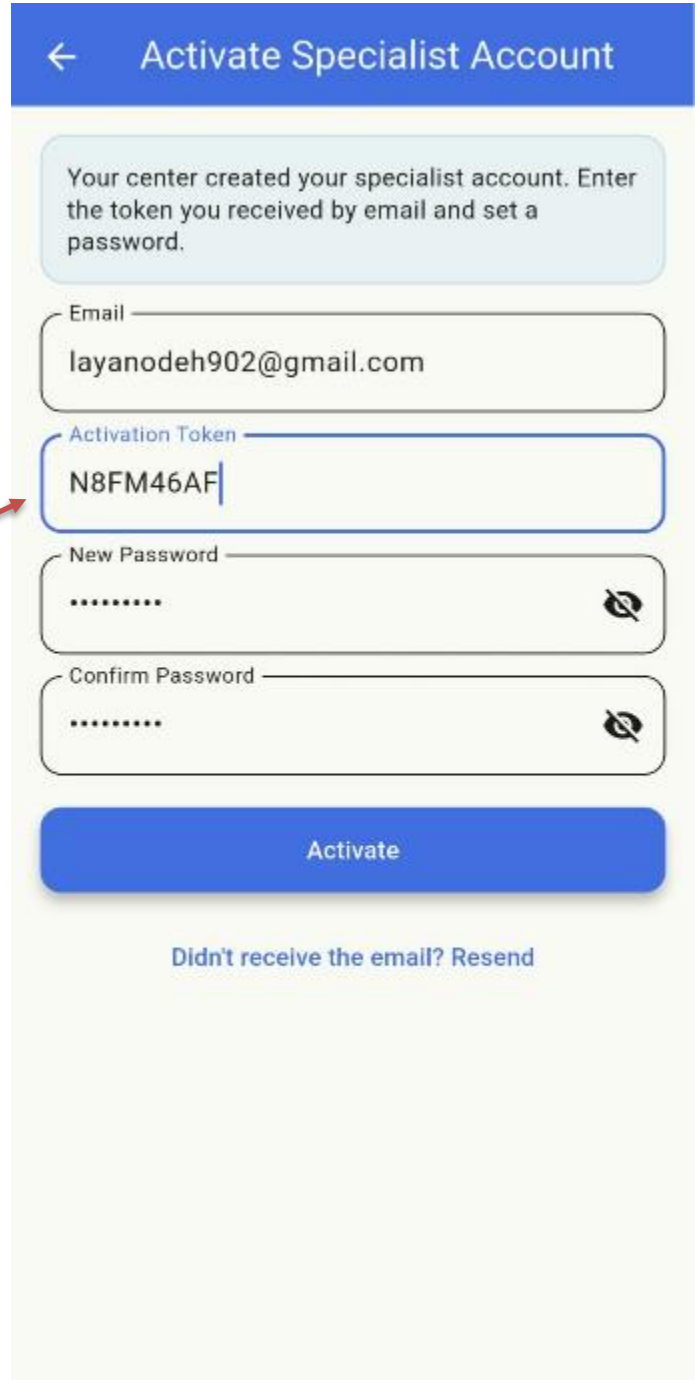
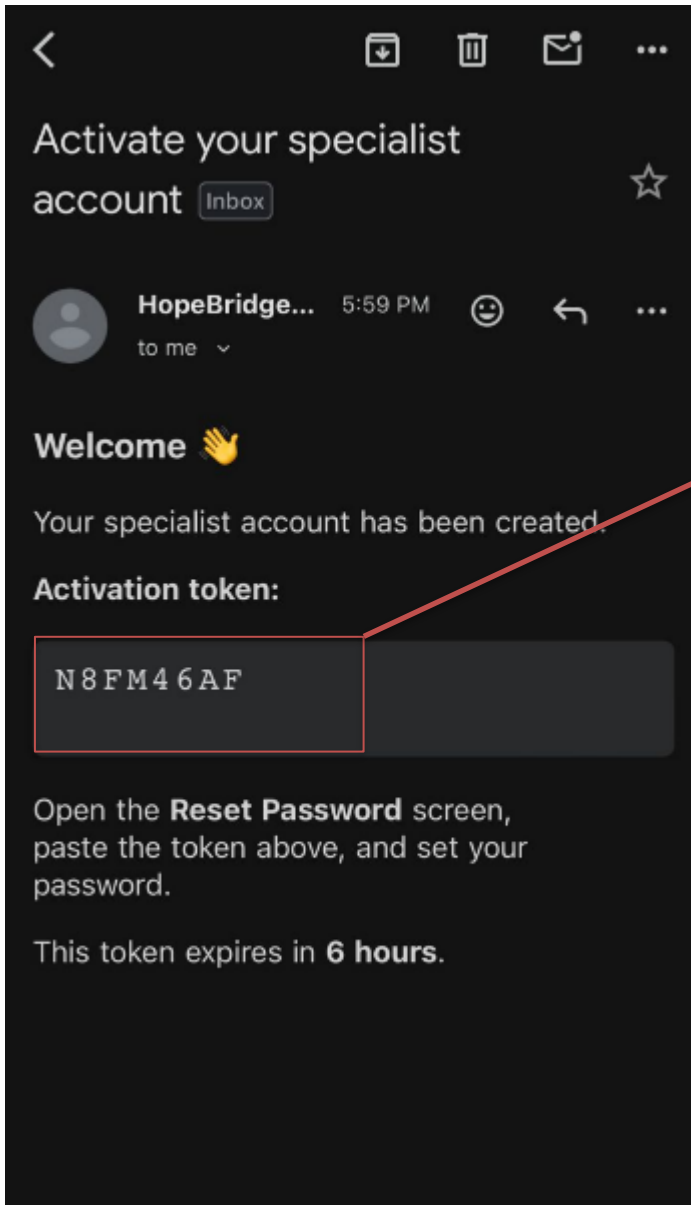


172center analytics page8

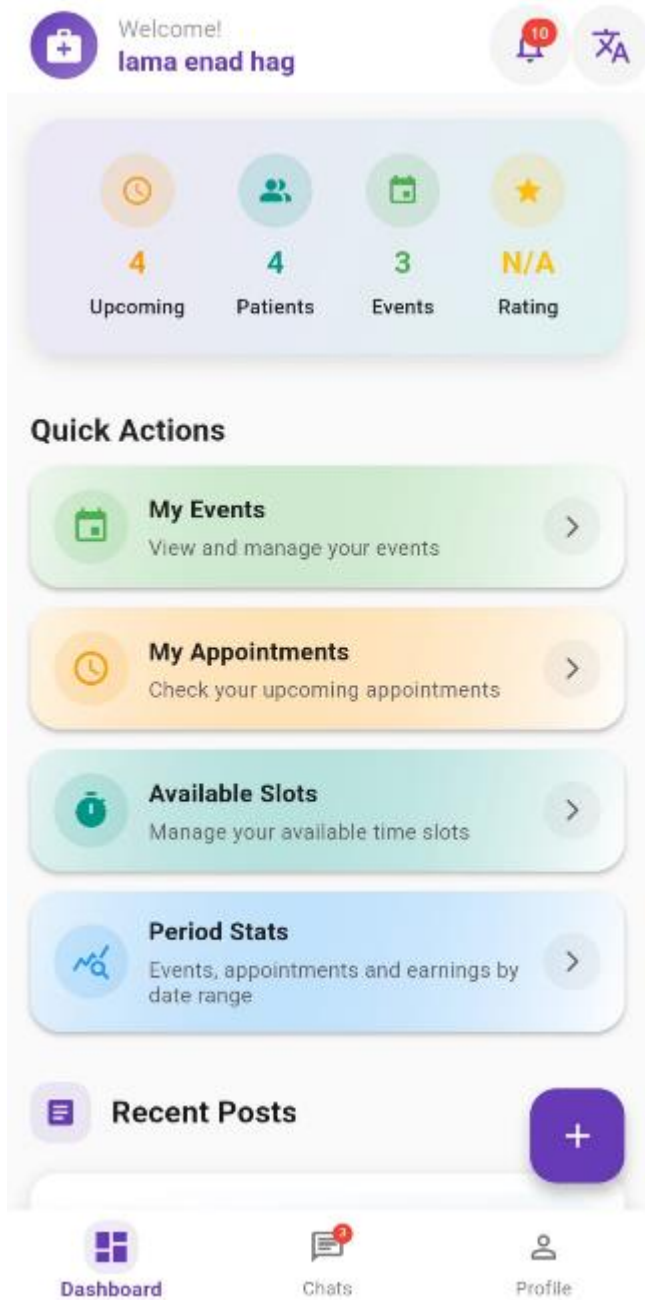
Center Report - Overview	
Center: جمعية بسمة أمل From: 2025-10-01 To: 2026-01-22	
Field	Value
Center Name	جمعية بسمة أمل
Email	alamalorg81@gmail.com
Phone	0569853268
Location	palestine
Specialists Total	3
Specialists Active	3
Specialists Inactive	0
Appointments Total	17
Appointments Booked	0
Appointments Completed	6
Appointments Rescheduled	0
Appointments Cancelled	11
Cancellation Rate	64.7%

Specialist features

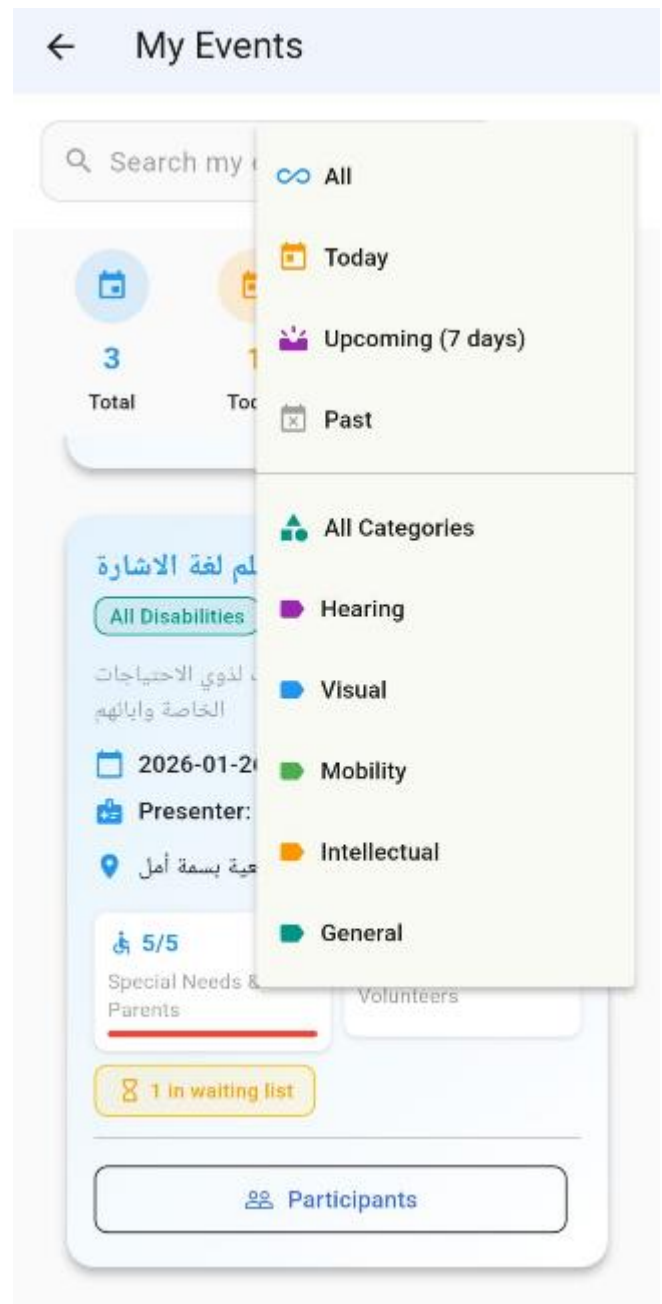
In HopeBridge, the Specialist module is designed to support professionals such as doctors, psychologists, physiotherapists, and speech therapists who may work with one or multiple centers. When a specialist is added for the first time, the system creates a dedicated specialist user account along with a professional profile that includes role, specialty, schedule, and service configuration. To ensure secure access, the specialist receives an email containing a time-limited activation token, which is used to set a password and complete the sign-in process. If the same specialist is later added by another center, the system does not duplicate the user account; instead, it creates a new center-specific specialist assignment linked to the existing account. Each assignment can have its own schedule, work type, and service settings, while the system enforces validation rules to prevent schedule conflicts across centers. Once authenticated, specialists can view and manage their appointments, monitor availability and free time, cancel or reschedule appointments when allowed, and participate in events organized by centers. The module also supports a structured rating and feedback system based only on completed appointments to ensure fairness and reliability. In addition, specialists have access to analytics and statistics that summarize their appointments, events, ratings, and overall activity across centers and time periods, enabling transparency, performance tracking, and effective service management.



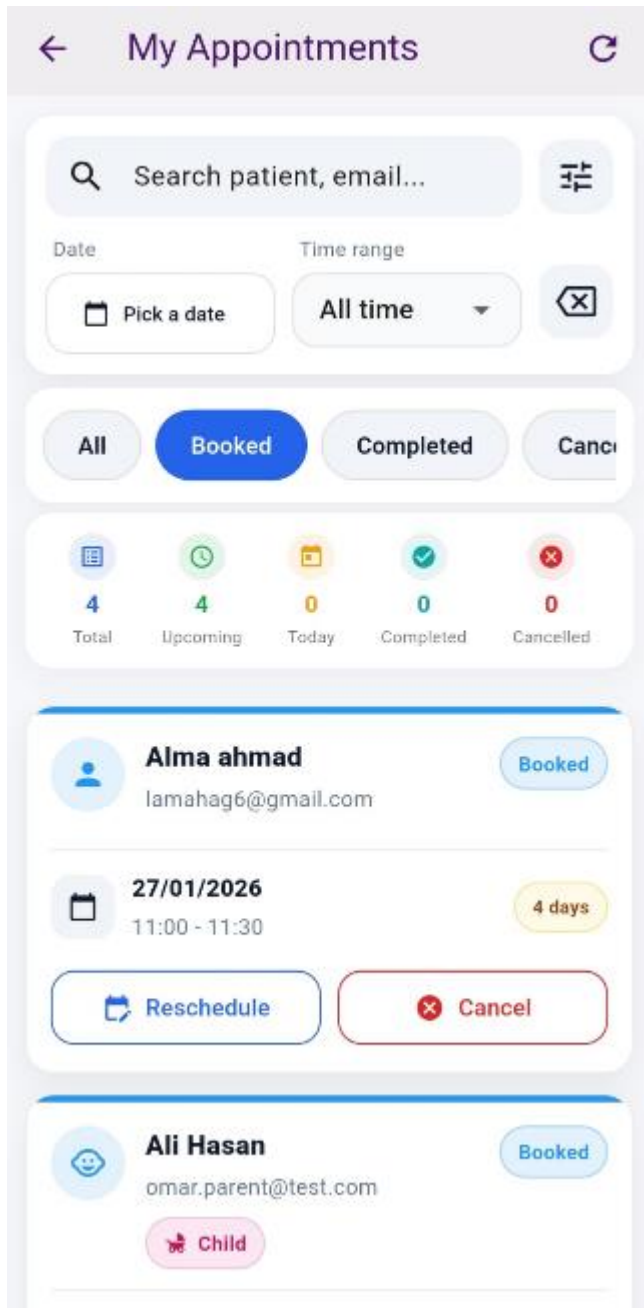
174 specialist activation account



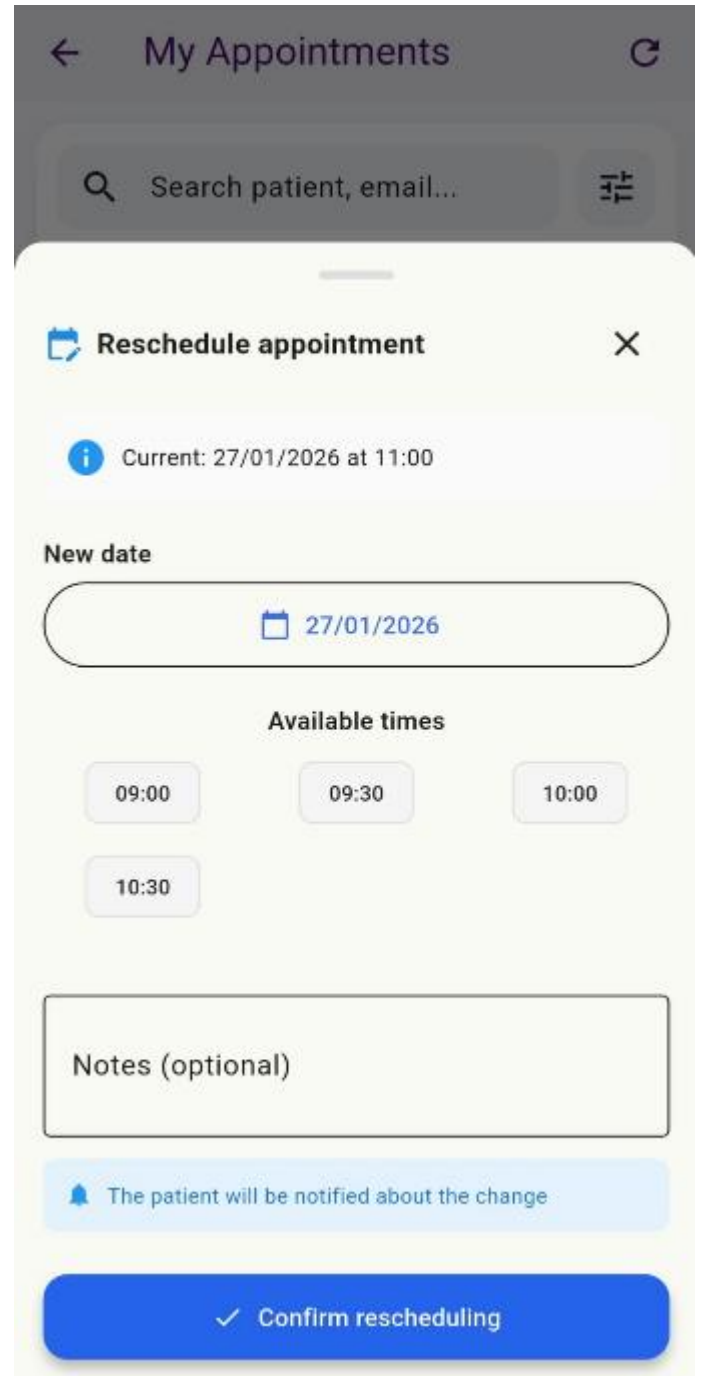
175 specialist dashboard



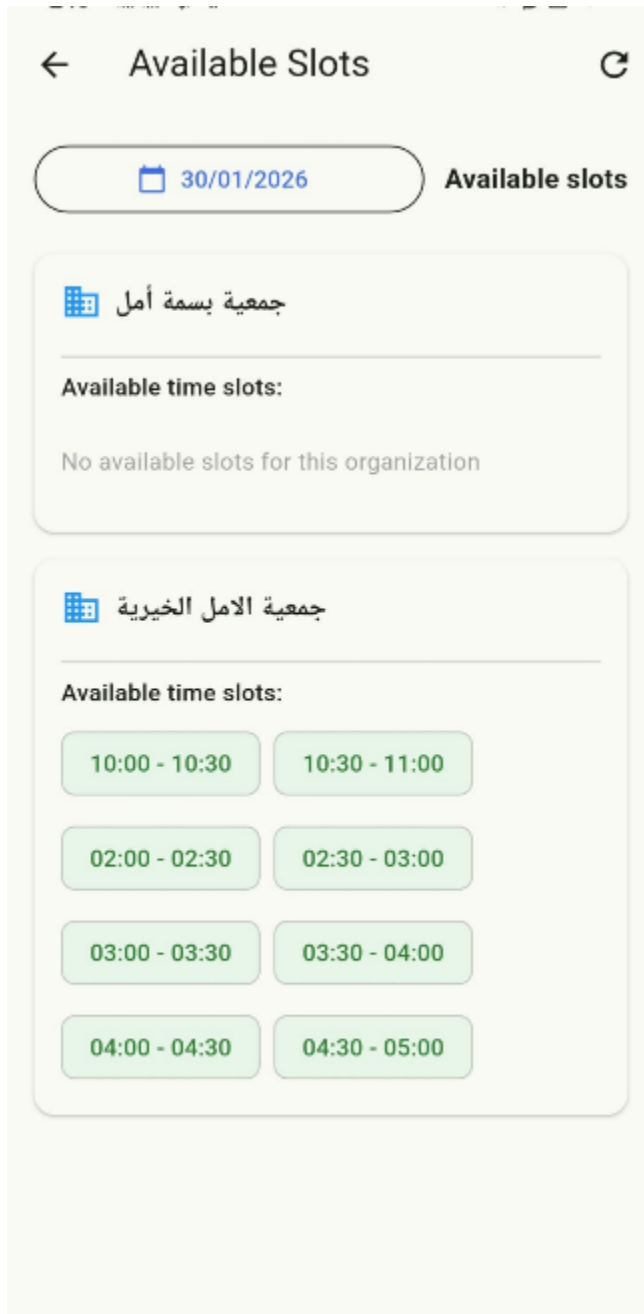
176 specialist event page



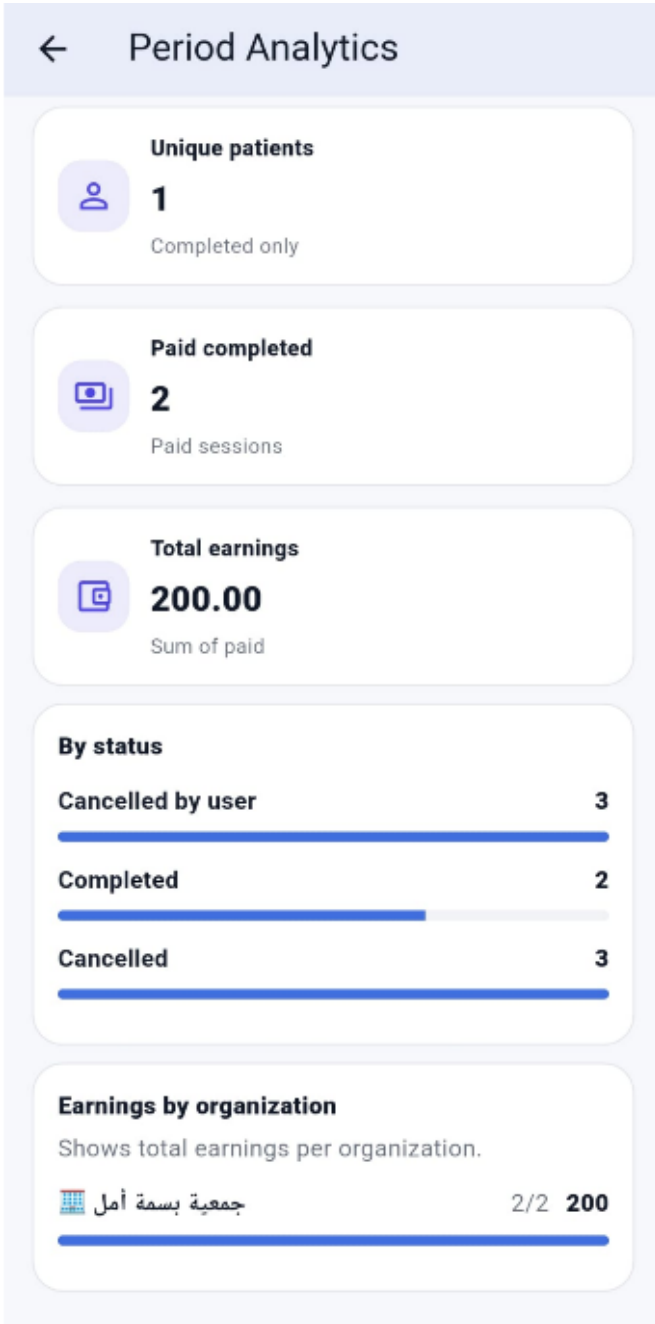
177 specialist appointment page



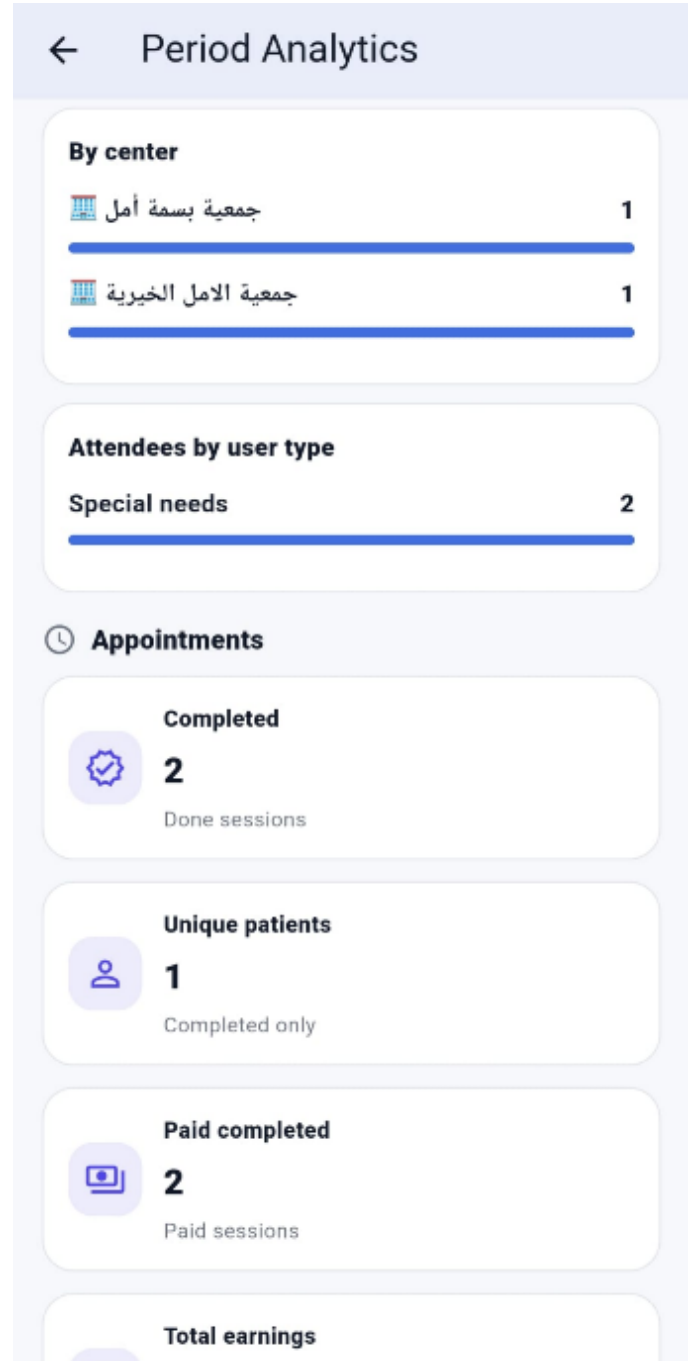
178 specialist appointment management page



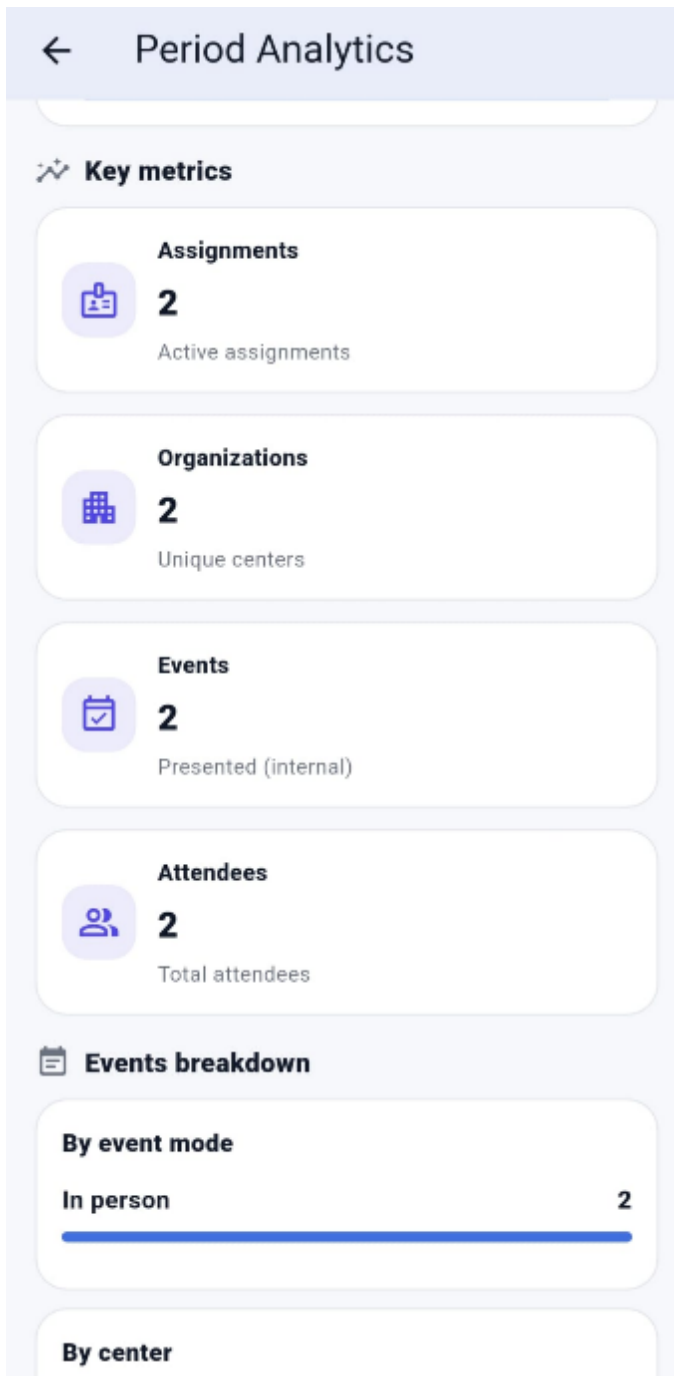
179 specialist available slots page



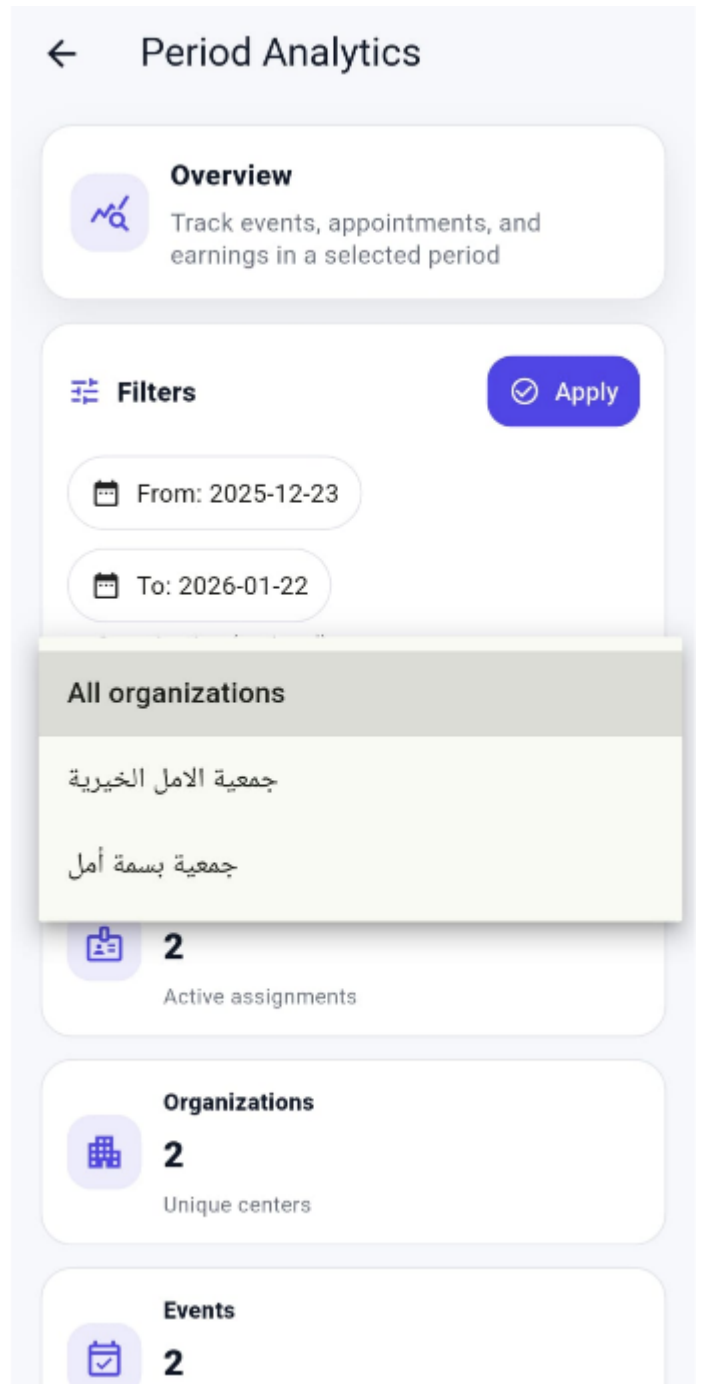
180 specialist analytics page1



181 specialist analytics page2



182specialist analytics page3



183 specialist analytics page4



184 email to specialist if an account is deactivated at an center



HopeBridge Support <hopebridge700@gmail.com>
to me ▾

Jan 12, 2026, 1:37 PM (11 days ago) ☆ 😊 ⏪ ⋮

تم إلغاء موعدك

مرحباً **Fidaa Hadi**

نود إعلامك بأنه تم إلغاء موعدك بسبب تطليل المختص من قبل الجمعية.

الجمعية: جمعية الأمل الخيرية
المختص: د. وذا لمروطي
التاريخ: 08-03-2026
الوقت: 10:00 - 09:30

⏪ Reply ⏩ Forward 😊

185 email to special needs

إلغاء موعد Inbox x



HopeBridge Support <hopebridge700@gmail.com>
to me ▾

تم إلغاء موعدك

تم إلغاء موعدك من قبل المختص. السبب: المختص غير متوفر في هذا الوقت

المختص: د. شهد

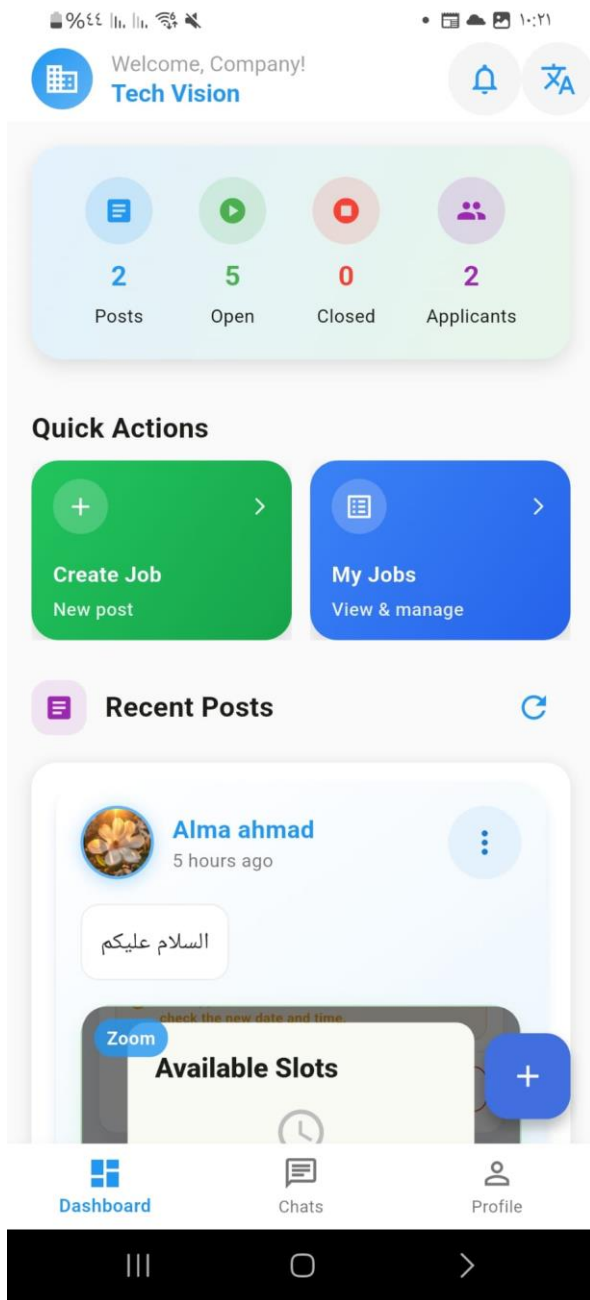
التاريخ والوقت: 08-03-2026 10:00-09:30

السبب: المختص غير متوفر في هذا الوقت

186 email to special needs when cancel appointment

Company features

In HopeBridge, the Company module enables approved companies to support the employment inclusion of people with special needs by publishing accessible job opportunities within the platform. A company can create and manage its own job announcements only after it has been verified and approved, ensuring that all published vacancies come from trusted entities. When a company posts a job, the platform enforces strict data validation to maintain quality and reliability: the application deadline must be a valid future date, job type and location details must be consistent (e.g., remote jobs are automatically treated as remote), and essential attributes such as job description and required skills are standardized. Each job post is also tailored to accessibility needs by allowing the company to specify which disability categories the position is suitable for, as well as the workplace accessibility features available (e.g., wheelchair access, assistive technologies, flexible work hours). Furthermore, companies can define professional requirements in a structured form, including whether a certificate is required (with defined academic/professional levels and additional details) and whether prior experience is needed (with configurable minimum and maximum years). To ensure that candidates can apply through realistic channels, companies configure an external application method—email, website, or phone—where missing contact information can safely fall back to the company’s registered details. Finally, companies retain full control over their job lifecycle through dashboards that provide listing, filtering, and status management (open/closed), allowing organizations to keep opportunities up to date and aligned with inclusive hiring goals.



187 company dashboard page

← **My Job Posts** ☰ ↻

🔍 Search job posts... ✕

All Open Closed Requires Experience

👛 Total **6** 🔒 Open **5** 🔒 Closed **1**

CLOSED 14/1/2026

test Full-time

📍 Nablus

📅 Today

OPEN 14/1/2026

Senior Accountant Full-time

📍 Nablus

📈 4+ Years

📅 5/3/2026 📞 Phone

OPEN 13 +

Senior Accountant Full-time

188 my jobs page1

☰ **Filters** ✕

Status

All

Open

Closed

Job Type

Select job type

All ▾

Requirements

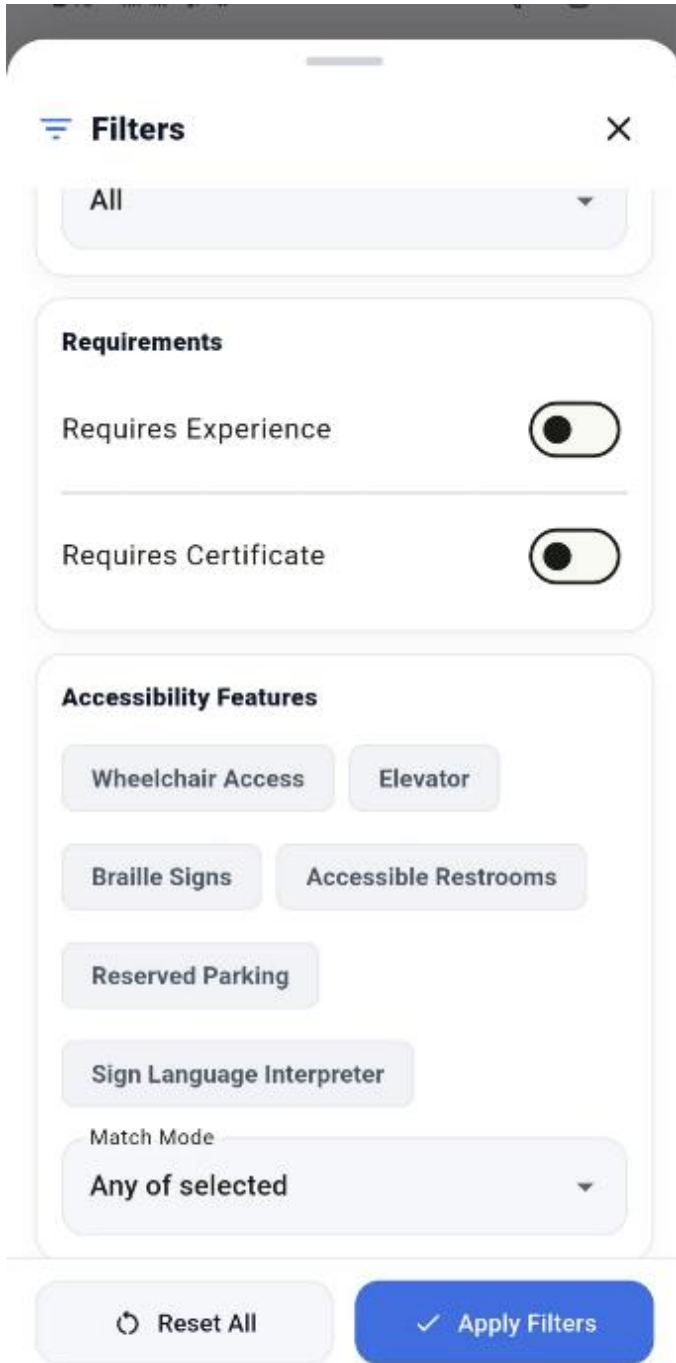
Requires Experience

Requires Certificate

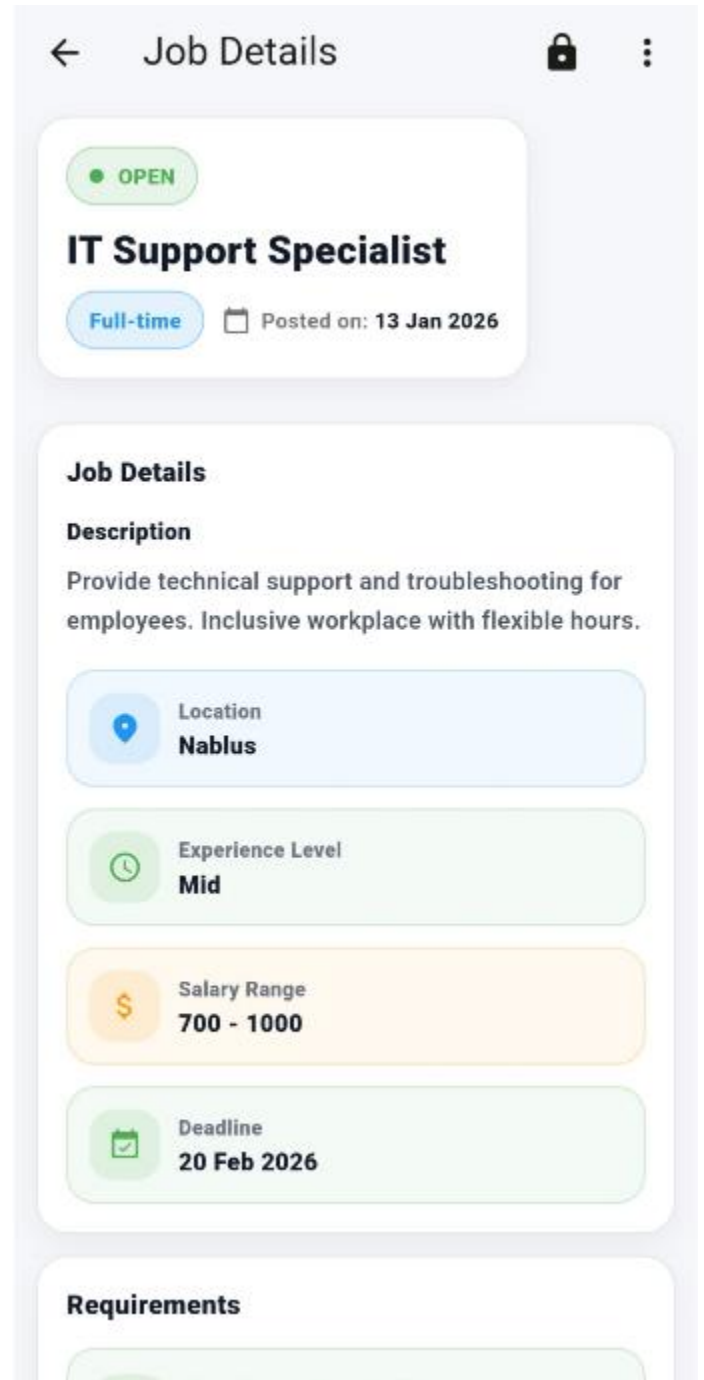
Accessibility Features

↻ Reset All ✓ Apply Filters

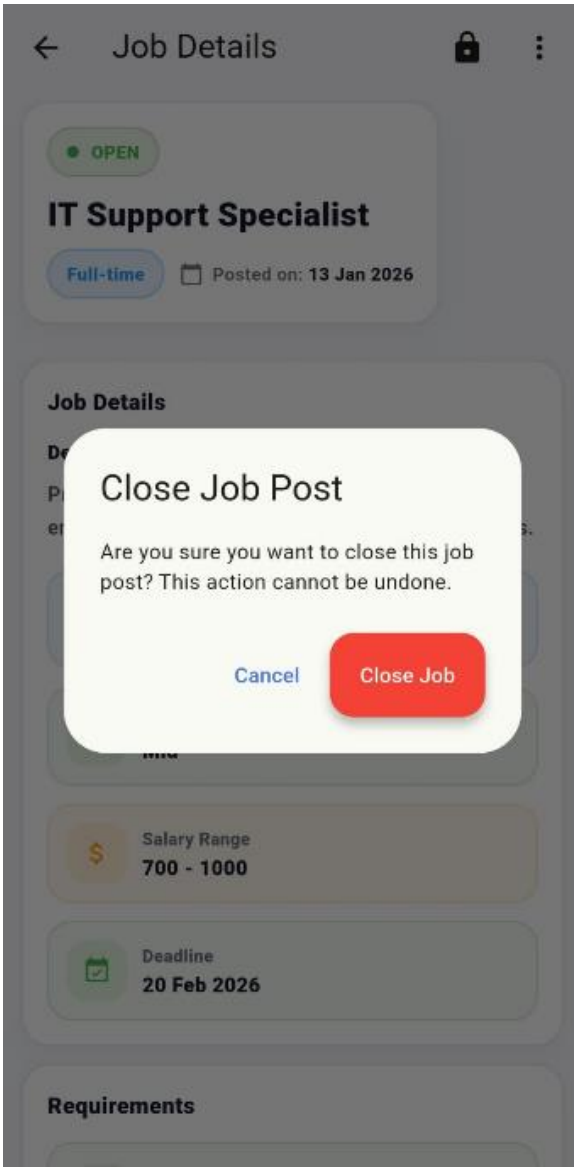
189 my jobs page2



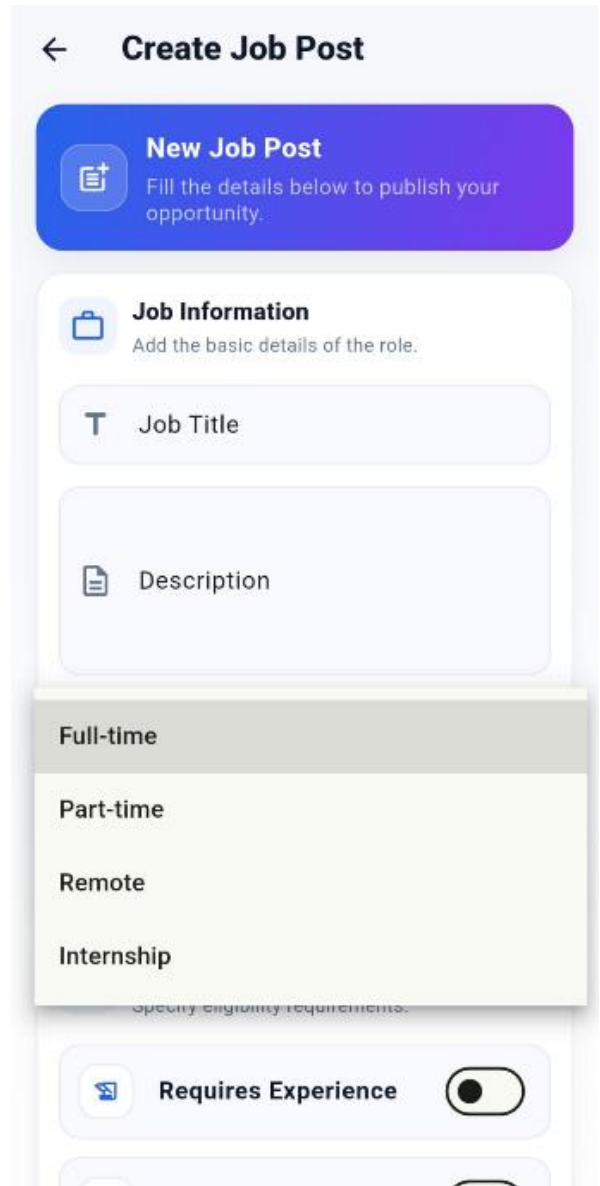
190 my jobs page3



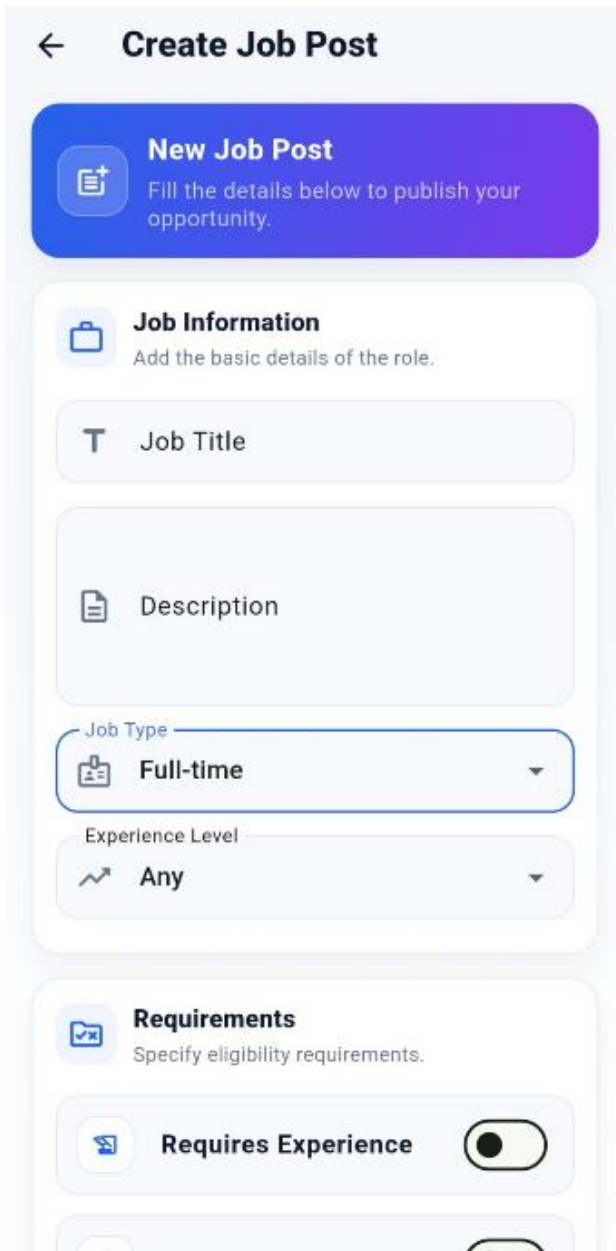
191 job details & management page1



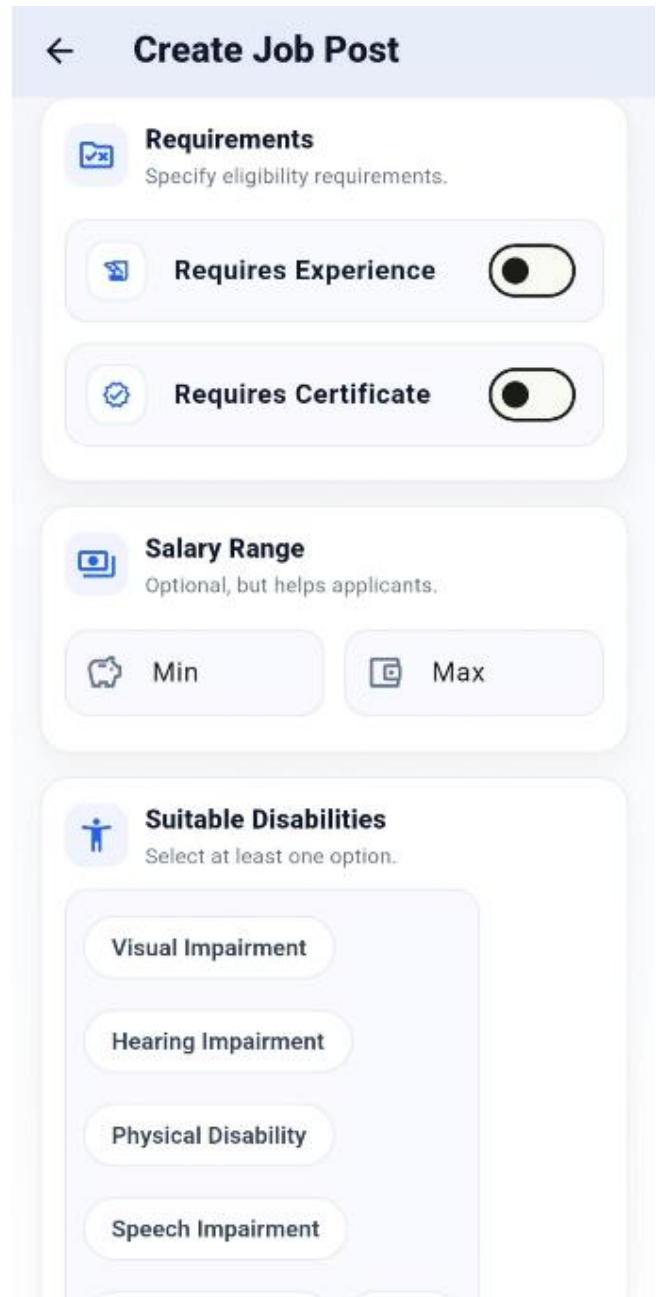
192 job details & management (close job post) page



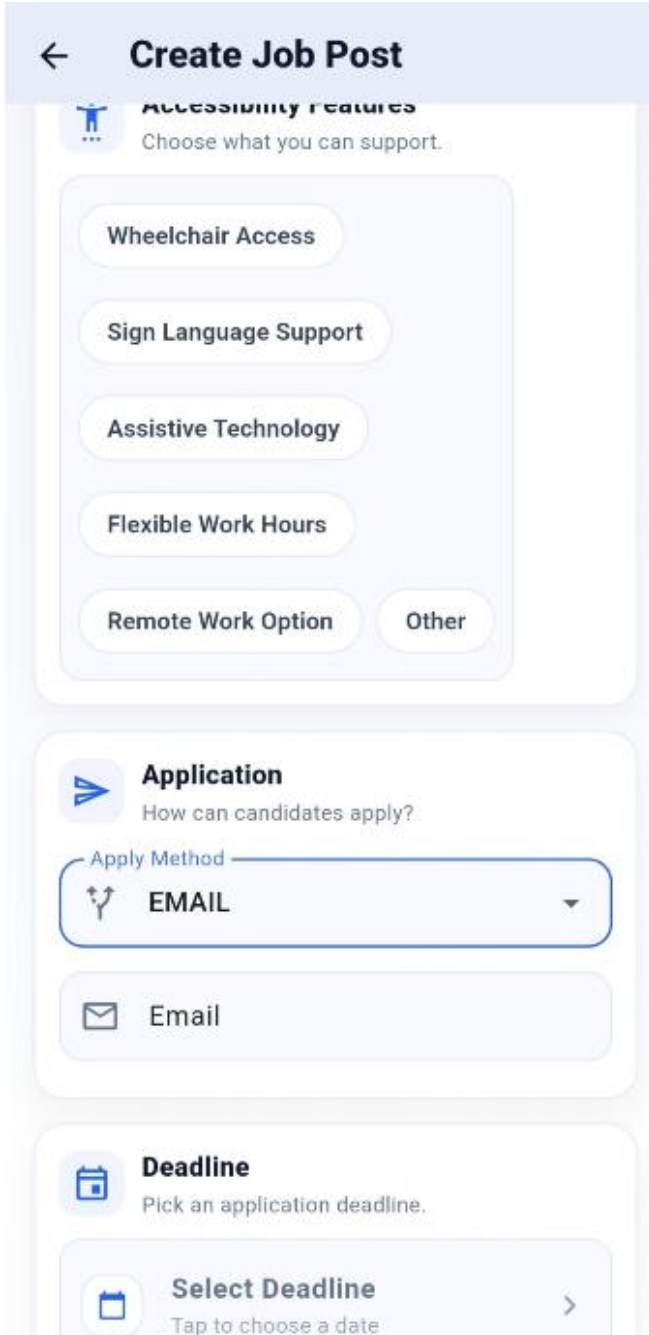
193 create job post page1



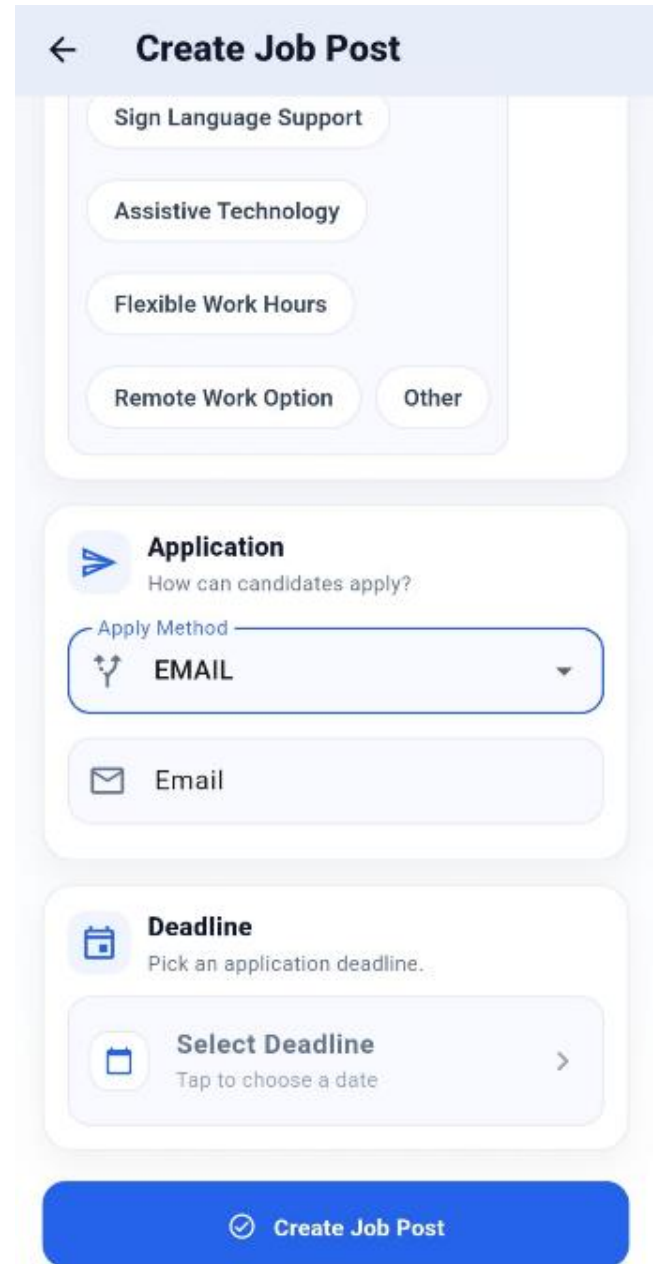
194 create job post page 2



195 create job post page 3



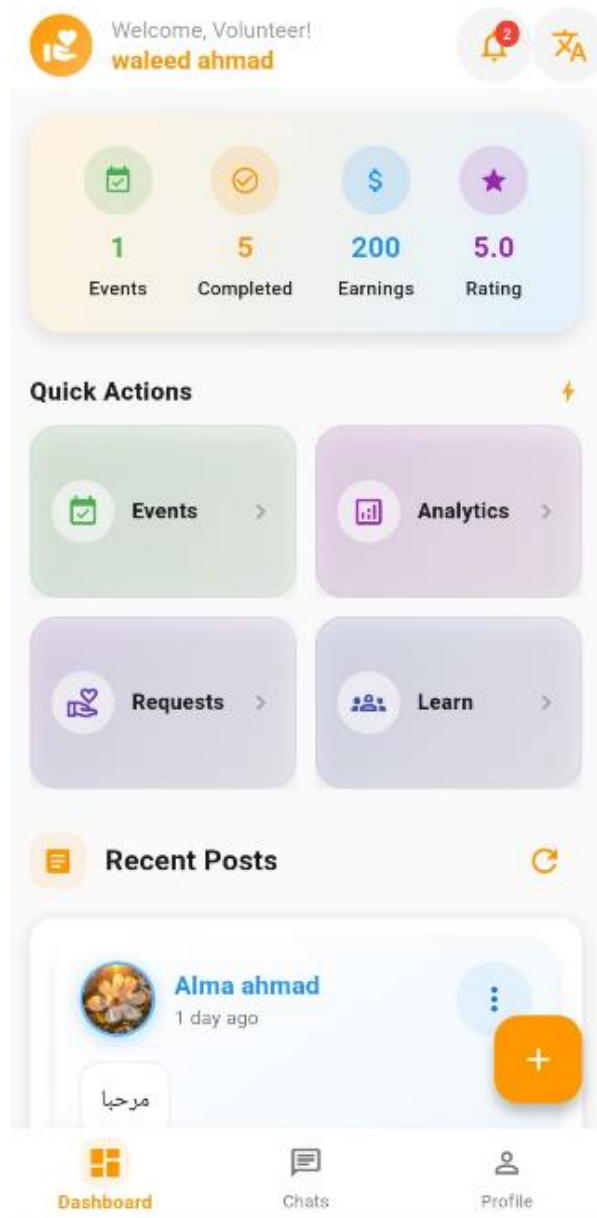
196 create job poste page4



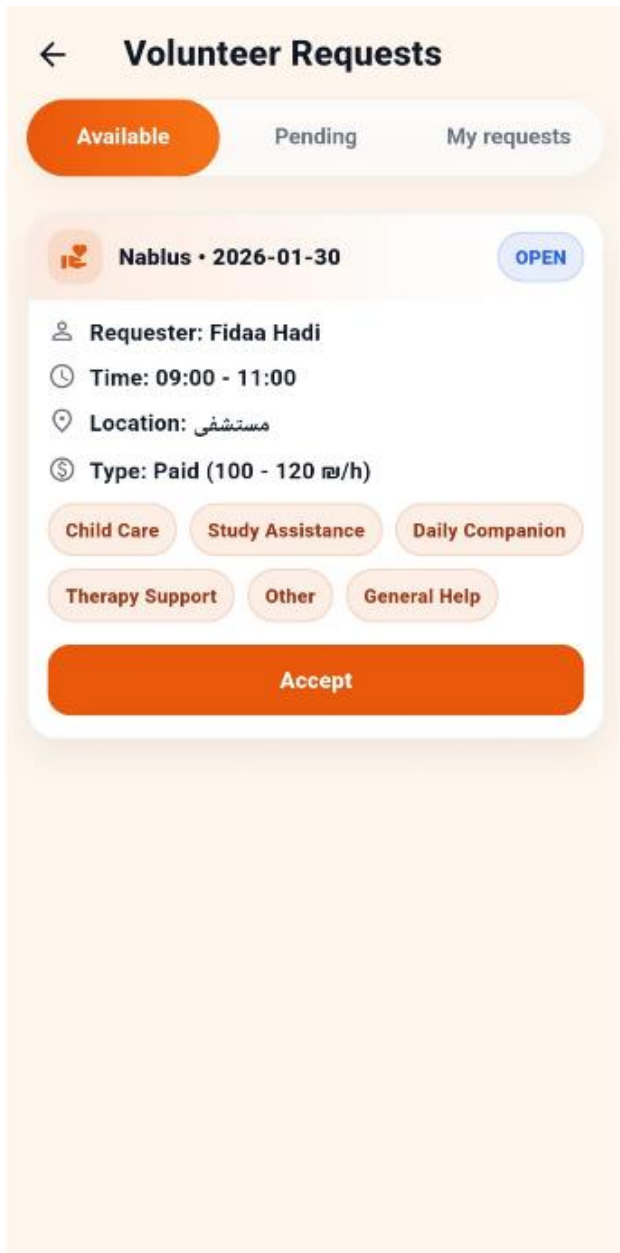
197 create job poste page5

Volunteer features

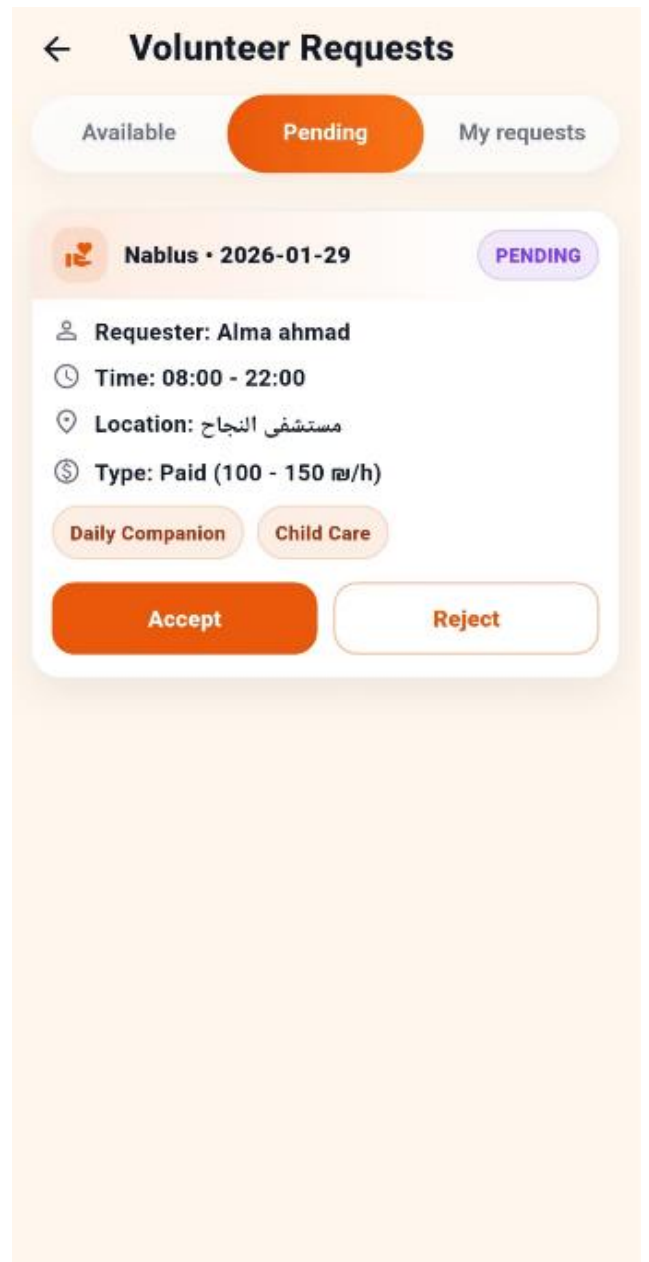
In HopeBridge, the Volunteer user role is designed to connect community volunteers with individuals who need support, while ensuring a controlled and transparent service flow. Volunteers can browse service requests published by Special Needs users or Parents/Guardians, review the request details, and accept requests that match their availability and capabilities; in addition, they can receive direct (targeted) requests addressed specifically to them. The volunteer module also provides clear tracking of the volunteer's activities by separating requests into categories such as incoming direct requests, accepted/ongoing requests, and previously accepted/completed requests. Beyond requests, volunteers can view available events, join events when they meet the required criteria defined by the organizing entity, and monitor their participation history. To support performance awareness and self-improvement, the system includes an Analytics interface that summarizes key indicators—such as the number of participated events, completed services, earnings (for paid services), and overall rating—along with additional breakdowns (e.g., request status distribution and paid vs. unpaid activities), while integrated chat enables communication and coordination after acceptance to ensure smooth service delivery.



198 volunteer dashboard page



199volunteer requests page1



200 volunteer requests page2

Volunteer Requests

Available Pending **My requests**

✓ All Accepted Completed Canceled

Nablus • 2026-01-29 **ACCEPTED**

Requester: Alma ahmad
 Time: 08:00 - 22:00
 Location: مستشفى النجاح
 Type: Paid (100 - 150 ₪/h)

Daily Companion Child Care

Open chat Cancel

Nablus • 2026-01-09 **COMPLETED**

Requester: Alma ahmad
 Time: 20:00 - 20:15
 Location: test
 Type: Free

Daily Companion Child Care

Nablus • 2026-01-24 **ACCEPTED**

201 volunteer request page3

Alma ahmad

تم فتح محادثة بعد قبول المتطوع للطلب. يمكنكم التنسيق هنا. 08:12 PM

هلا 08:12 PM

تم فتح محادثة بعد قبول المتطوع للطلب. يمكنكم التنسيق هنا. 08:17 PM

تم فتح محادثة بعد قبول المتطوع للطلب. يمكنكم التنسيق هنا. 08:20 PM

15 Dec 2025

تم فتح محادثة بعد قبول المتطوع للطلب. يمكنكم التنسيق هنا. 12:17 PM

Today

تم قبول طلبك من قبل المتطوع. يمكنكم التنسيق هنا. 09:41 PM

Load more

اكتب رسالة... إرسال

202 volunteer request (chat) page4

← Volunteer Events ↻

Search eve... All skills All

2 Total 2 Active 0 Past 2 Shown

دورة تعليمية Open

دورة لذوي الاحتياجات

2026-01-26 10:08 - 11:08 نابلس

Teaching, Therapy

Join

تعلم لغة الاشارة Open

تعليم لغة الاشارة من الصفر للاحتراف لذوي الاحتياجات الخاصة وابائهم

2026-01-26 13:00 - 15:00 نابلس-جمعية بسمة أمل Teaching, Therapy

Join

203 volunteer events page1

← Volunteer Events ↻

Search eve... All skills All

2 Total 2 Active 0 Past 2 Shown

دورة تعليمية Joined

دورة لذوي الاحتياجات

2026-01-26 10:08 - 11:08 نابلس

Teaching, Therapy

Cancel

تعلم لغة الاشارة Open

تعليم لغة الاشارة من الصفر للاحتراف لذوي الاحتياجات الخاصة وابائهم

2026-01-26 13:00 - 15:00 نابلس-جمعية بسمة أمل Teaching, Therapy

Join

204 volunteer events page2

← Volunteer Analytics

Rejected Requests **0**
 Joined At **13 Dec 2025 • 07:41 PM**

Requests by Status

ACCEPTED: 2 COMPLETED: 5

Paid vs Unpaid

Paid **2** Unpaid **5**

Earnings

Completed (Paid)	1
Total Earnings	200.00
Avg per Paid	200.00

Rating From Requests

Average **5.0** Total Rated **2**

Server Filters

205 volunteer analytics page1

← Volunteer Analytics

Filters

Last 7 days Last 30 days **✓ All**

From To

Range On: **Service date (date)**

Selected: All time **✓ Apply**

1 Events **5** Completed **200** Earnings **5.0** Rating

Volunteer Profile

Account Status	ACTIVE
Paid Service	Yes
Service Rate	100
Average Rating	5.0
Total Ratings	2
No Show Count	0
Rejected Requests	0
Joined At	13 Dec 2025 • 07:41 PM

206 volunteer analytics page2

AI-Based Recognition Model

This project aims to design and implement an intelligent system for recognizing **Arabic Sign Language (ArSL) letters** using deep learning and computer vision techniques, and to integrate this system into an interactive mobile application that enables real-time recognition and training. This chapter presents the practical steps followed in the project, starting from data preparation, through model construction and training, and ending with its integration into a Flutter-based mobile application.

Dataset:

In this project, a publicly available dataset dedicated to **Arabic Sign Language** was used. The dataset consists of static images representing hand gestures corresponding to Arabic letters.

The dataset includes:

- **32 classes**, where each class represents one Arabic sign language letter.
- Thousands of images per letter, providing sufficient diversity in hand shapes and poses.
- A hierarchical directory structure, where each folder contains images belonging to a specific letter.

Additionally, a CSV annotation file was used to map each image file to its corresponding letter. This file facilitated data organization and verification of labels during the data preparation and training processes.

Data Preprocessing:

Before training the model, several preprocessing steps were applied to the images in order to standardize the inputs and improve model performance. These steps include:

- Converting images to **grayscale** to reduce computational complexity.
- Resizing all images to a fixed resolution of **64 × 64 pixels**.
- Normalizing pixel values by scaling them from the range [0–255][0–255][0–255] to [0–1][0–1][0–1].
- Converting images into numerical arrays suitable for input into a neural network.

These preprocessing steps help reduce noise and improve the stability and convergence of the training process.

Deep Learning Model Architecture:

A **Convolutional Neural Network (CNN)** was designed and implemented using the TensorFlow/Keras framework, due to its effectiveness in image processing and feature extraction.

The model architecture consists of the following layers:

- **Input Layer:**
Accepts images of size **64 × 64 × 1**, representing grayscale images.
- **Convolutional Layers:**
Three convolutional layers were used:
 - First layer: 32 filters of size 3×3
 - Second layer: 64 filters of size 3×3
 - Third layer: 128 filters of size 3×3All convolutional layers use the **ReLU** activation function.

These layers progressively extract visual features, starting from simple edges to high-level

representations of the complete hand gesture.

- **MaxPooling Layers:**
After each convolutional layer, a 2×2 **MaxPooling** layer was applied to reduce spatial dimensions and increase robustness to small positional variations of the hand.
- **Dropout Layers:**
Dropout with a rate of **0.25** was applied after convolutional layers, and **0.5** after fully connected layers, to reduce overfitting.
- **Flatten Layer:**
Converts the output of the convolutional layers into a one-dimensional feature vector.
- **Fully Connected Layers:**
 - A dense layer with **512 neurons**
 - A dense layer with **256 neurons**Both layers use the ReLU activation function.
- **Output Layer:**
Consists of **32 neurons**, corresponding to the number of Arabic sign language letters, and uses the **Softmax** activation function to output class probabilities.

Model Training:

The dataset was divided into:

- **80% training data**
- **20% testing data**

The model was trained for **20 epochs** using:

- **Categorical Cross-Entropy** as the loss function
- **Adam optimizer** for weight optimization

The trained model achieved an accuracy of approximately **95%** on the test dataset, demonstrating its effectiveness in distinguishing between Arabic sign language letters.

Model Conversion to TensorFlow Lite:

After completing the training process, the trained model was converted into TensorFlow Lite (TFLite) format in order to:

- Reduce the model size
- Improve inference speed
- Enable deployment on mobile platforms

The resulting model was saved as:

arsal_model.tflite

Inference Server:

Due to the challenges associated with directly integrating a TFLite model into a Flutter application during the early development stages, a server-based inference architecture was adopted.

A server was implemented using **Python** and the **Flask** framework, which performs the following tasks:

- Loads the TFLite model once at server startup.
- Receives images from the mobile application via an API.
- Applies the same preprocessing steps used during training.
- Feeds the processed image into the trained model.
- Returns the predicted letter along with a confidence score.

Data exchange between the server and the mobile application is handled using the JSON format, which simplifies integration with Flutter.

Integration with the Flutter Application:

A mobile application was developed using **Flutter**, where the following functionality was implemented:

- Accessing and activating the device camera.
- Capturing frames from the camera stream at regular intervals.
- Selecting only the most recent frame to reduce computational load.
- Applying a center crop to focus on the hand region.
- Compressing the image and encoding it in Base64 format.
- Sending the image to the inference server via HTTP.

Upon receiving the server response, the predicted letter and confidence score are displayed in real time within the application interface.

Training Mode and Progress Tracking:

A dedicated training mode was implemented within the application, allowing users to:

- Select a specific letter for practice.
- Consider a prediction correct only if it exceeds a predefined confidence threshold.
- Use a consecutive repetition mechanism (streak) to confirm mastery of a letter.
- Store user progress, including the number of attempts, best streak, and mastery status.

Additionally, training sessions were supported, enabling users to practice multiple letters sequentially.

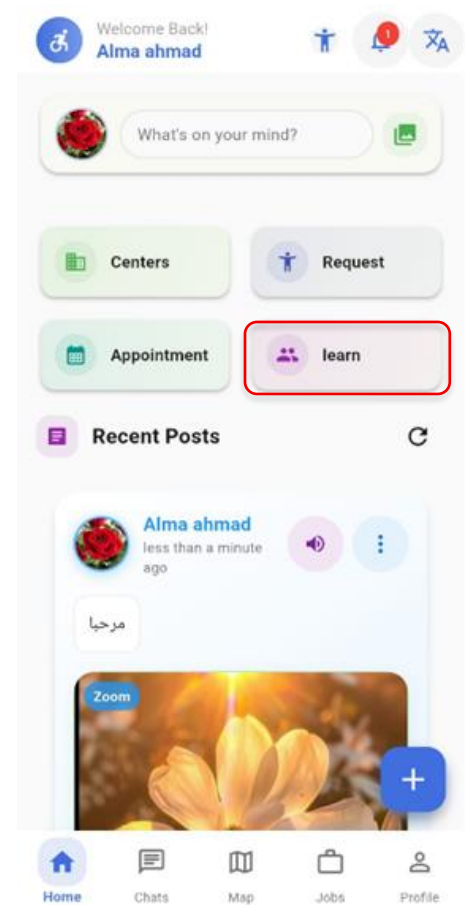
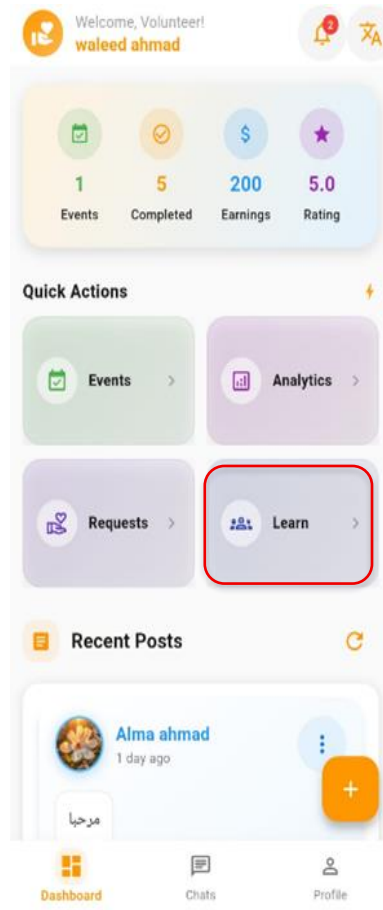
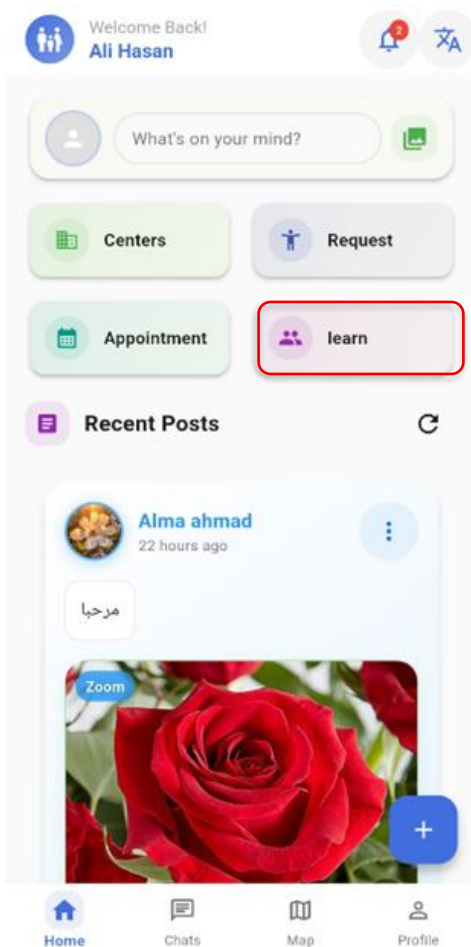
Summary:

The proposed methodology results in an integrated system that combines:

- A deep learning model trained on Arabic Sign Language letters.
- An intelligent inference server for real-time prediction.
- An interactive mobile application that supports real-time recognition and training.

This project represents a practical application of deep learning techniques in supporting individuals with hearing impairments and promoting accessibility and inclusion.

The AI-based sign language recognition and training service is made available to users with special needs, parents, and volunteers. This feature allows individuals with hearing impairments and their families to practice and improve their understanding of Arabic Sign Language, while also enabling volunteers to learn and train on sign language to better support the community. By providing this shared learning tool, the system promotes inclusivity, communication, and effective interaction among all user groups.





207 learning page1



208 Training on one letter page



209 training session page



210 progress page 1



211 Progress page2 (after training)



212 learning example-1 page1



213 learning example-1 page2



214 learning example-1 page3



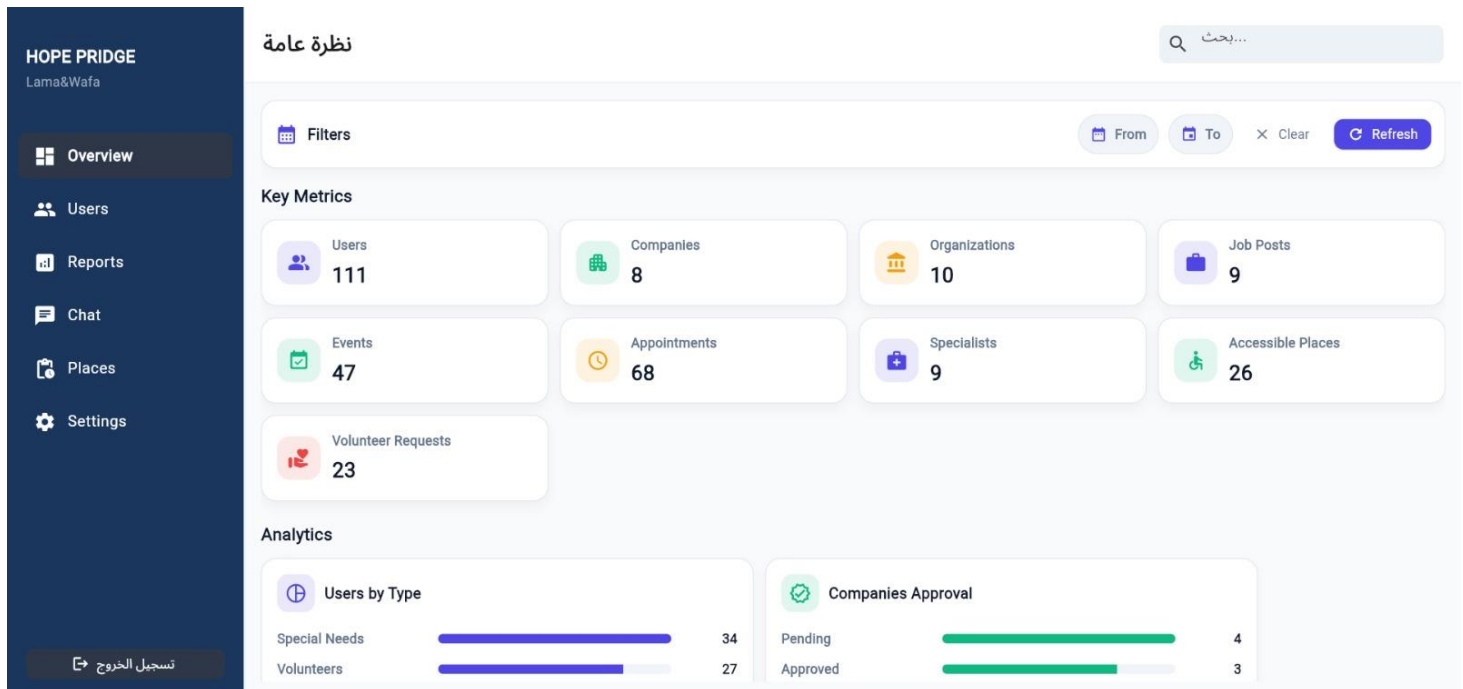
215 learning example-1 page4



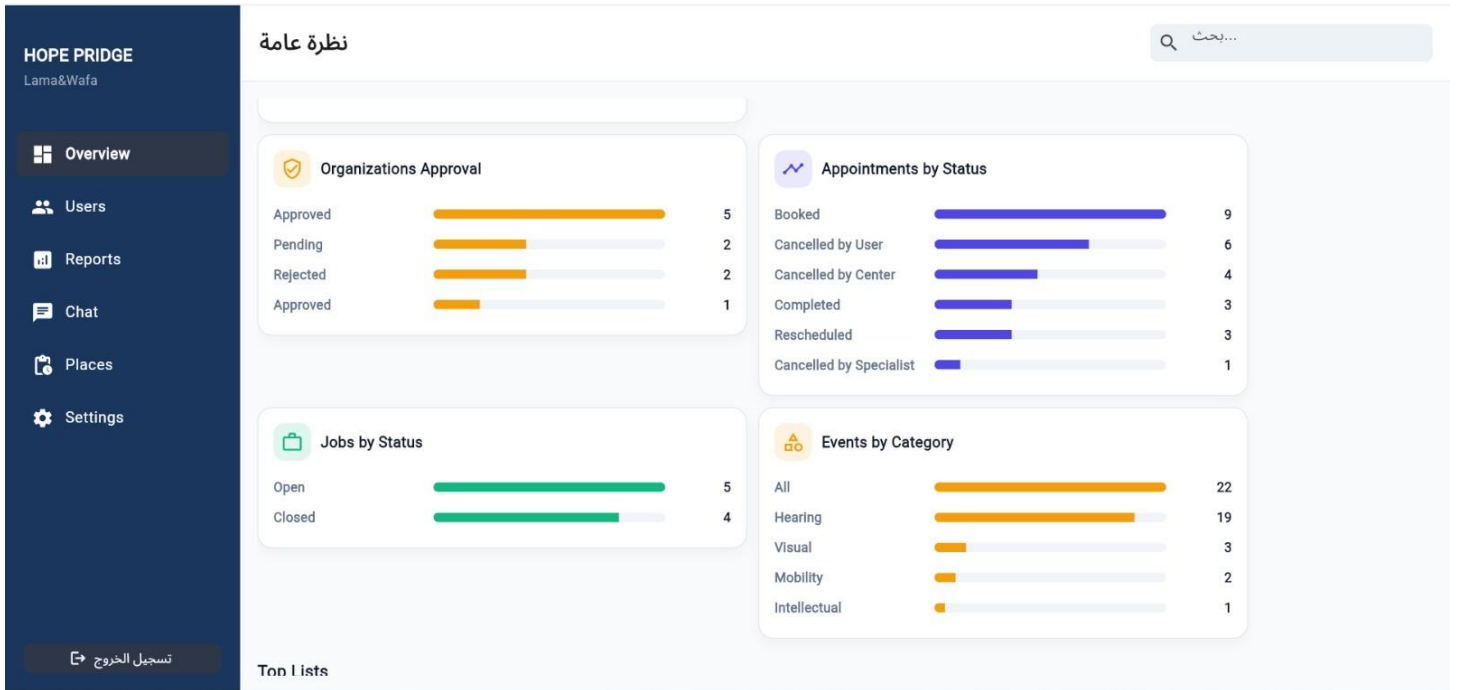
216 example2-predicting the letter page

Admen feature

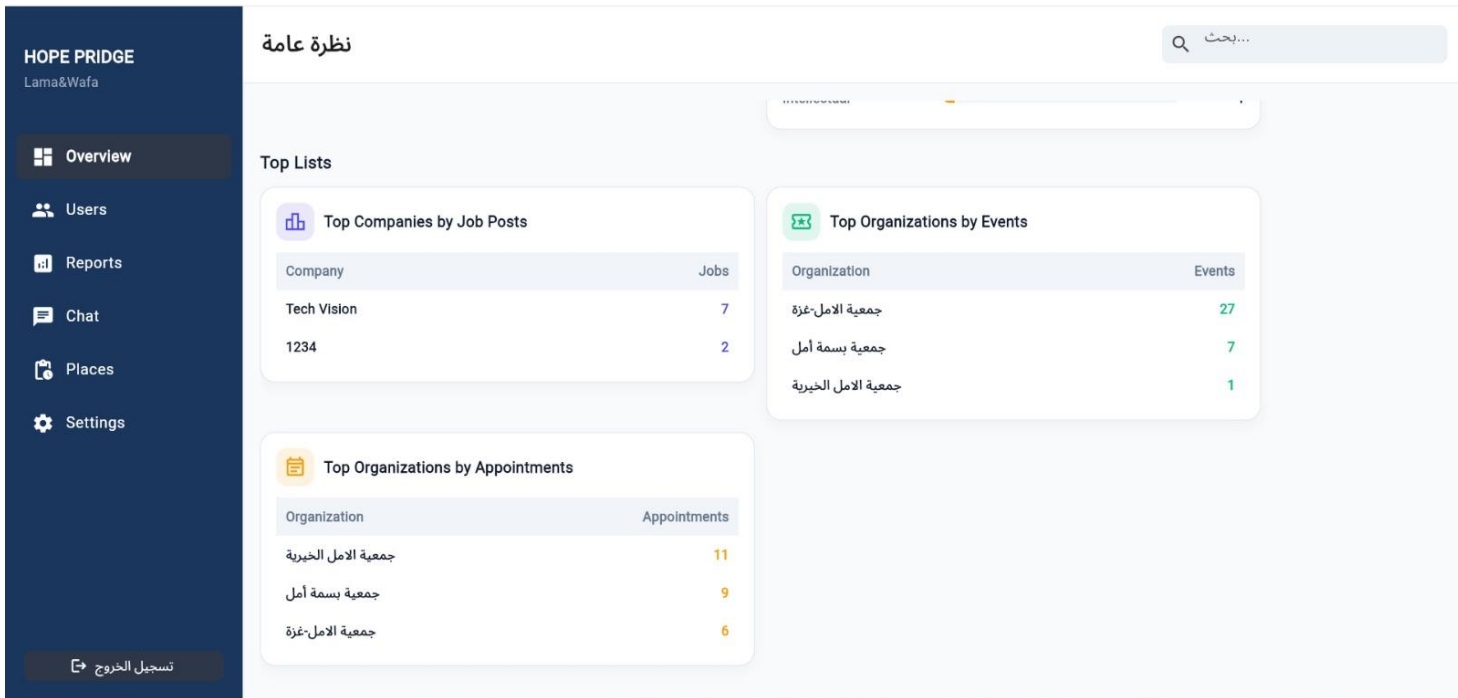
The Admin module in **HopeBridge** serves as the central governance and quality-assurance layer of the platform. It enables authorized administrators to review onboarding submissions for key stakeholder accounts (centers/organizations, companies, and volunteers) and make approval decisions based on completeness and compliance with the required information and documents. When an application is rejected, the system supports structured feedback by documenting the reason, identifying missing requirements, and allowing resubmission in cases where corrections are permitted, while also enforcing blocking measures in situations that require stricter action. In addition to account moderation, the module provides comprehensive analytical reporting capabilities that summarize the platform's operational status through aggregated indicators, categorical distributions, and ranked lists (e.g., activity volumes and top contributors). These insights can be filtered by date ranges and are presented in an administrator-friendly format suitable for dashboards, visual charts, and exportable reports, supporting data-driven monitoring and decision-making across the entire ecosystem.



217 admin overview page1



218 admin overview page2



219 admin overview page3

HOPE PRIDGE
Lama&Wafa

المستخدمين

تسجيل الخروج

Overview
Users
Reports
Chat
Places
Settings

بحث...

All Types All Status Search by name or email

Email	Type	Status	Actions
wwaaaffaaa@test.com	center	REJECTED	Manage
abc@test.com	center	APPROVED	Manage
Center One C2@test.com	center	REJECTED	Manage
Center One C3@test.com	center	APPROVED	Manage
Center One C5@test.com	center	APPROVED	Manage
Center One C6@test.com	center	PENDING	Manage

220 admin users' management page1

HOPE PRIDGE
Lama&Wafa

المستخدمين

تسجيل الخروج

Overview
Users
Reports
Chat
Places
Settings

بحث...

Company All Status Search by name or email

جمعية خطوة للأمام - Change status

Status: REJECTED

Rejection Reason: Other

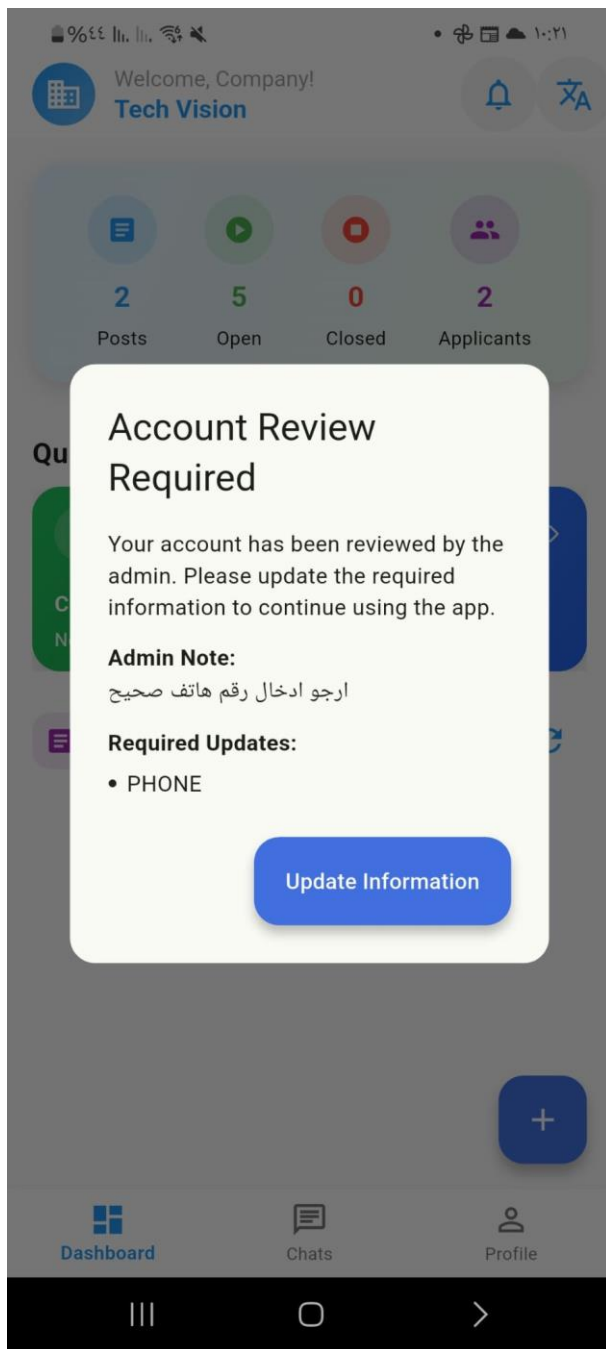
Other Reason:

Admin Note:

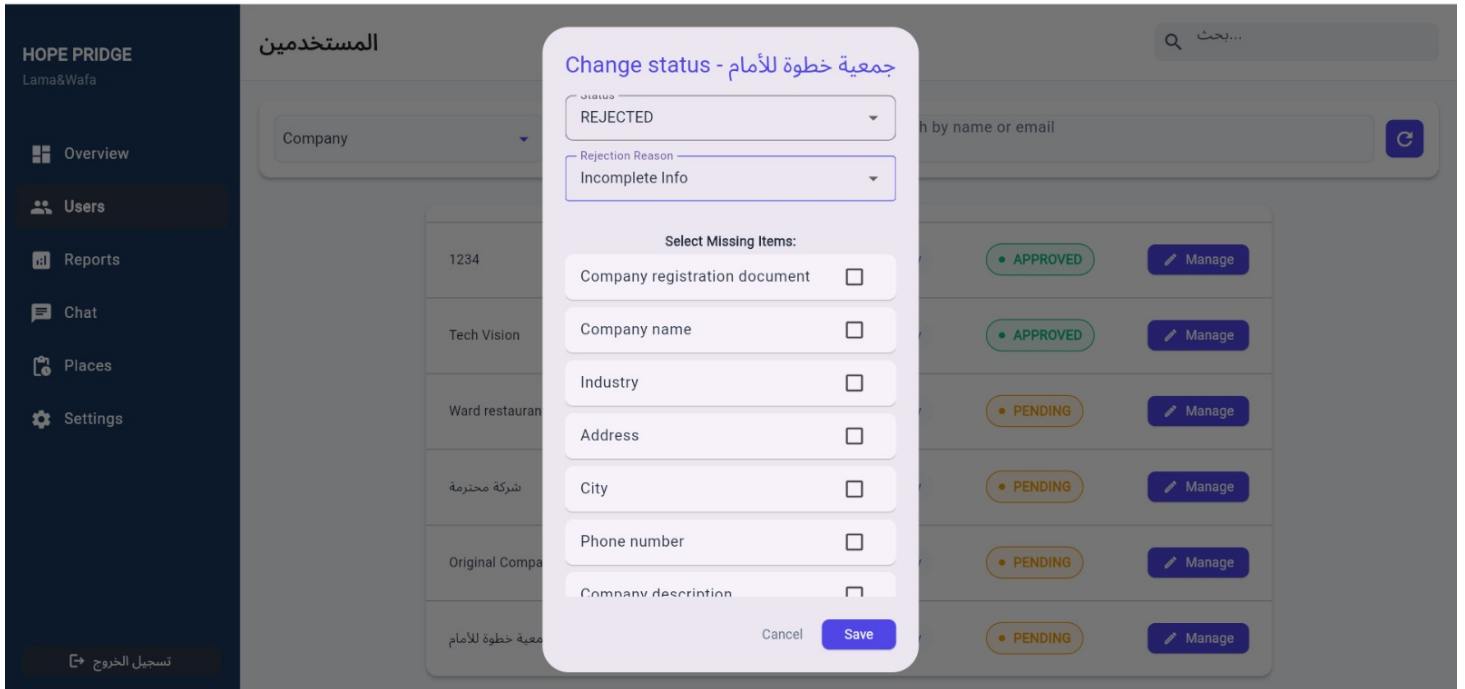
Cancel Save

1234			APPROVED	Manage
Tech Vision			APPROVED	Manage
Ward restaurant			PENDING	Manage
شركة محترمة			PENDING	Manage
Original Company	bt5tj2tfr@ozsaip.com	company	PENDING	Manage
جمعية خطوة للأمام	aic9xm3643@bwmyga.com	company	PENDING	Manage

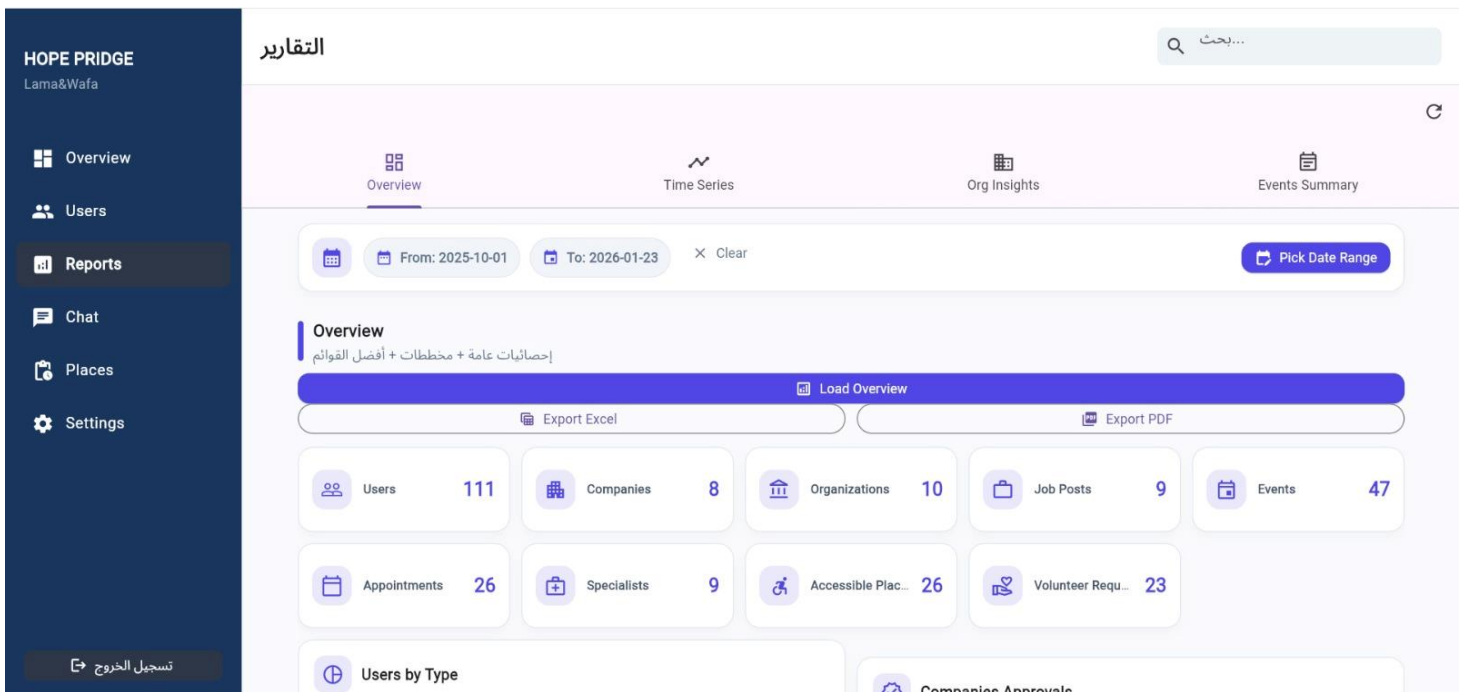
221 admin users management page2



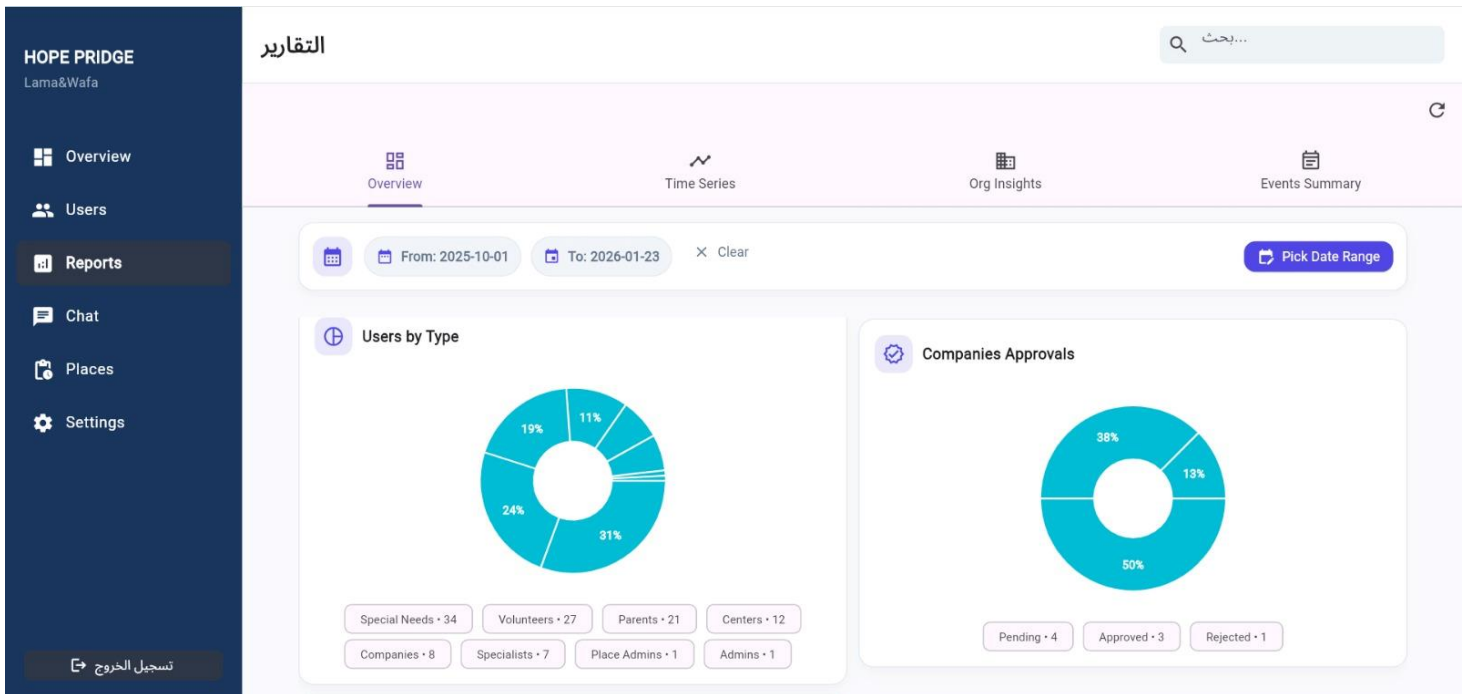
222 company page when rejected



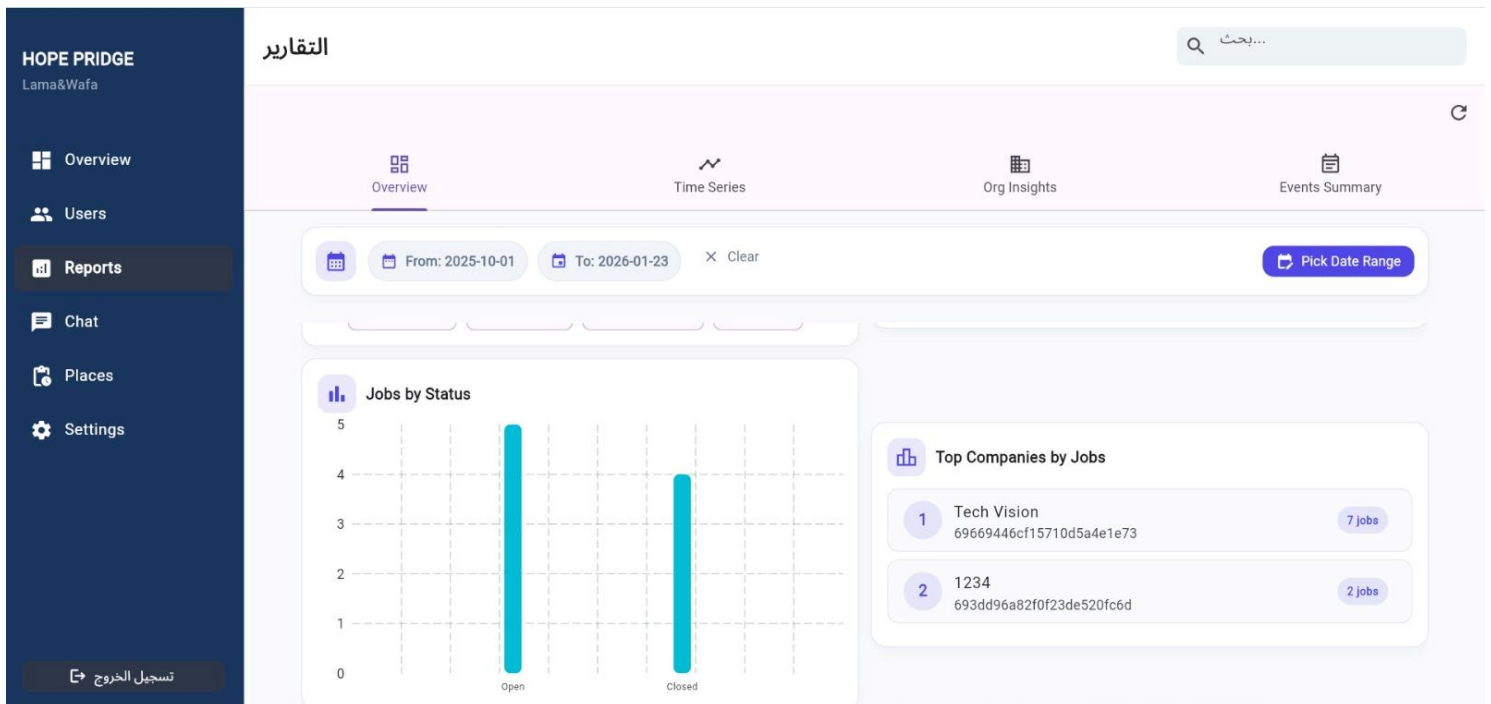
223 admin users' management page3



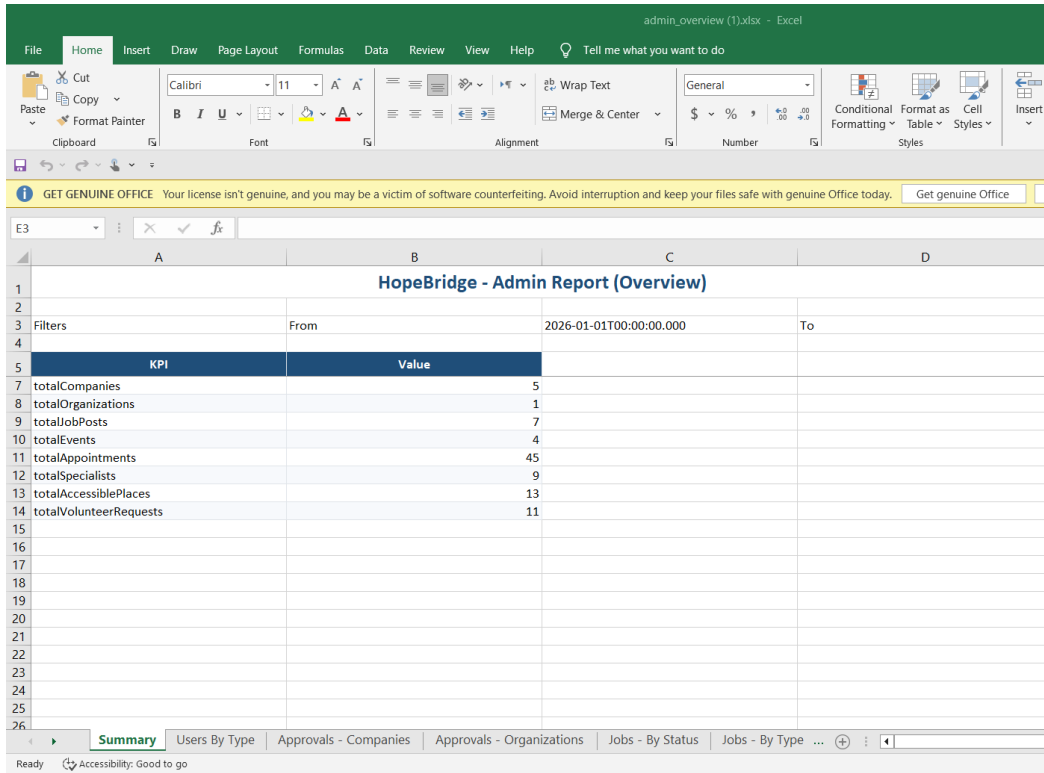
224 admin reports page1



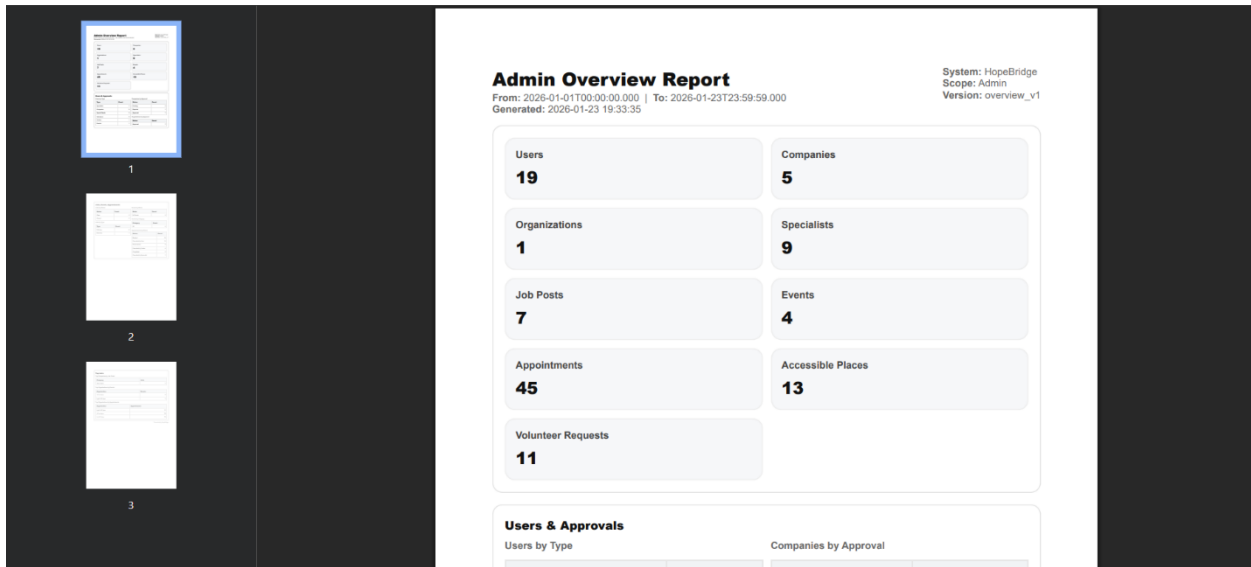
226 admin reports page2



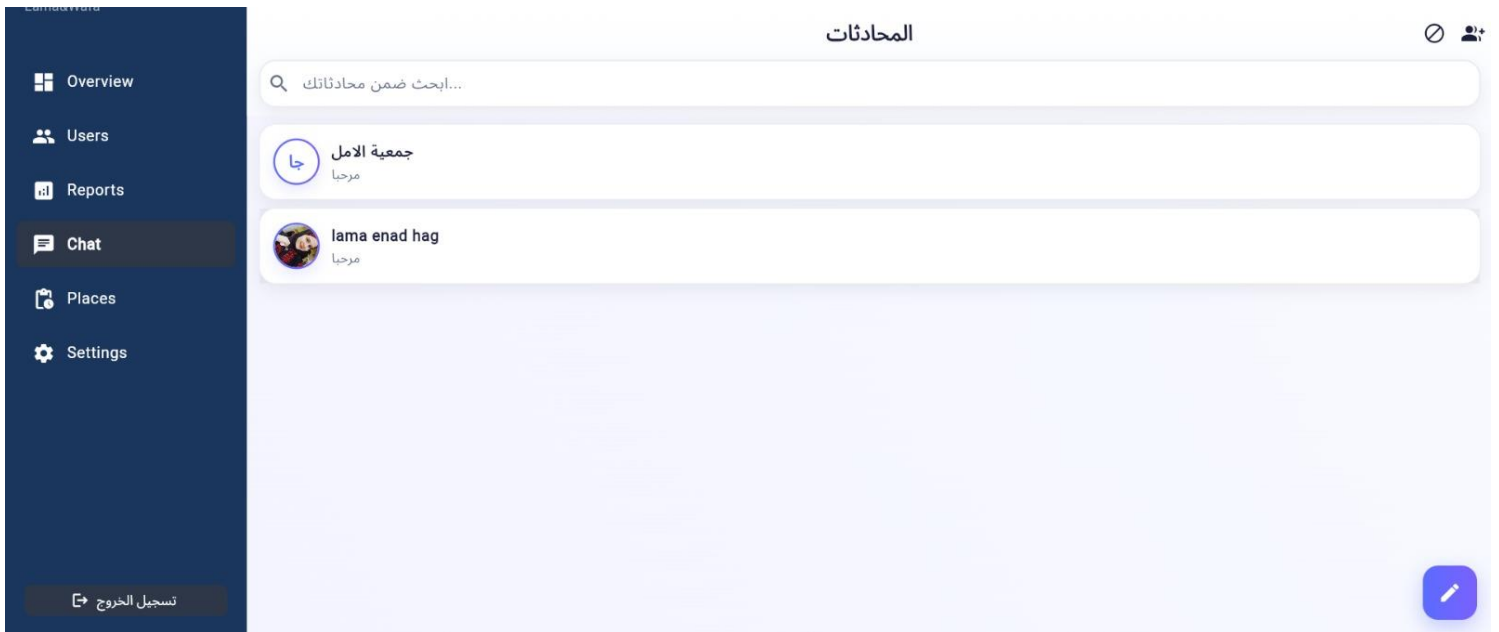
225 admin reports page3



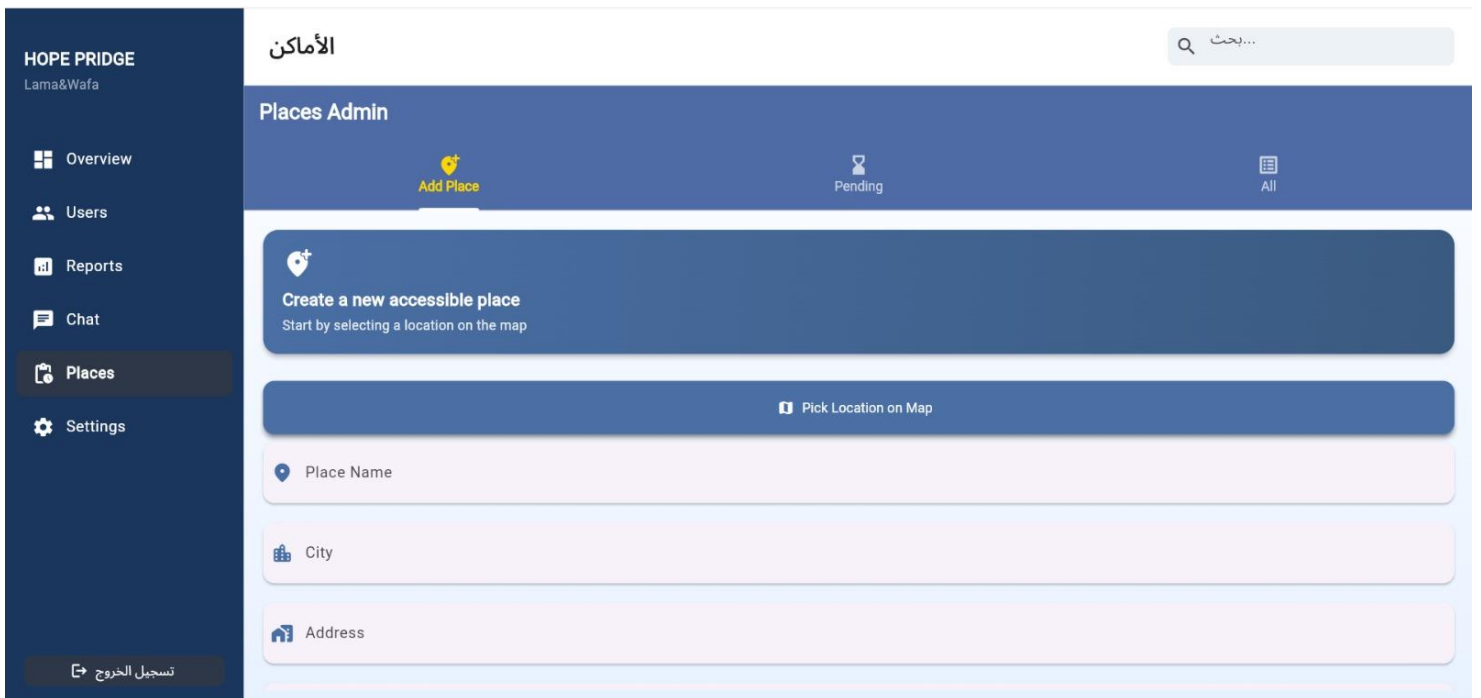
227 admin report excel sheet



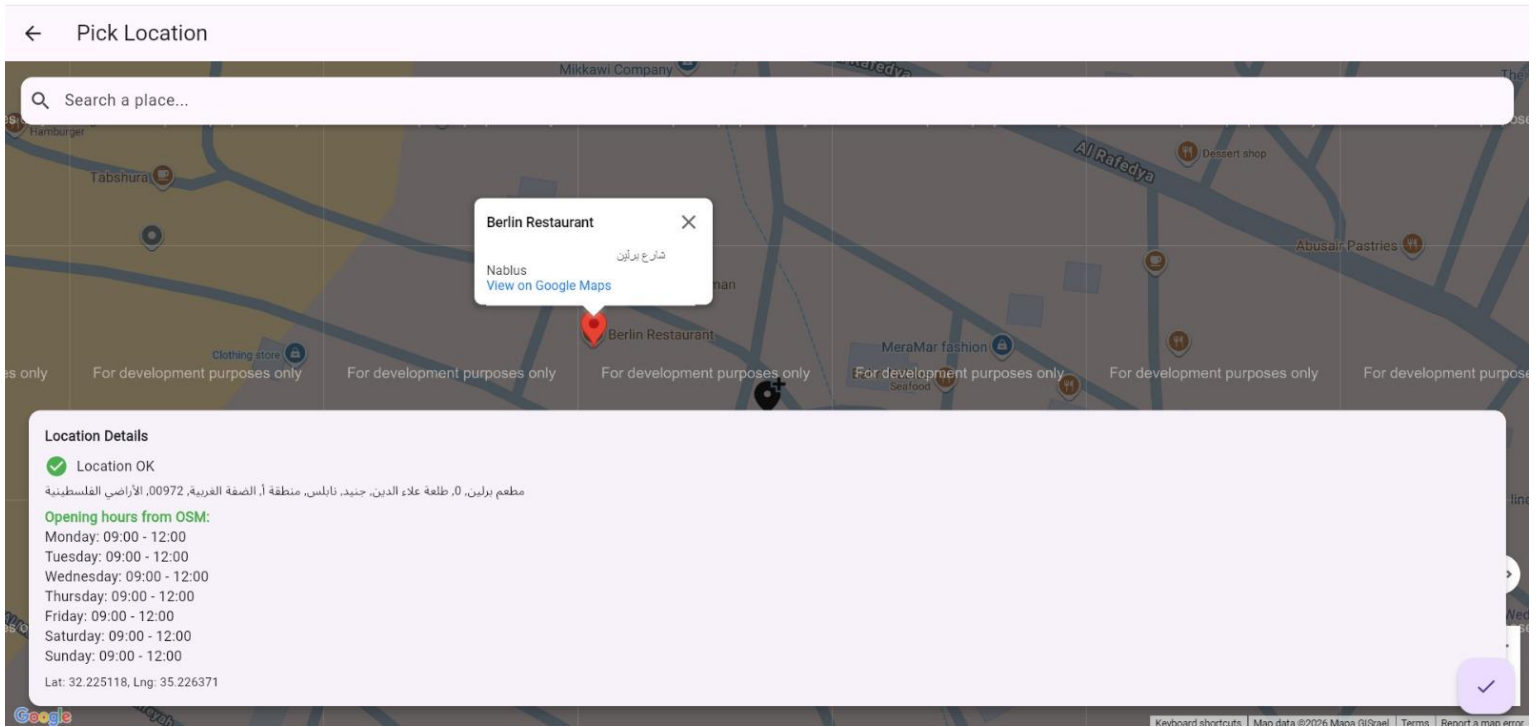
228 admin report pdf



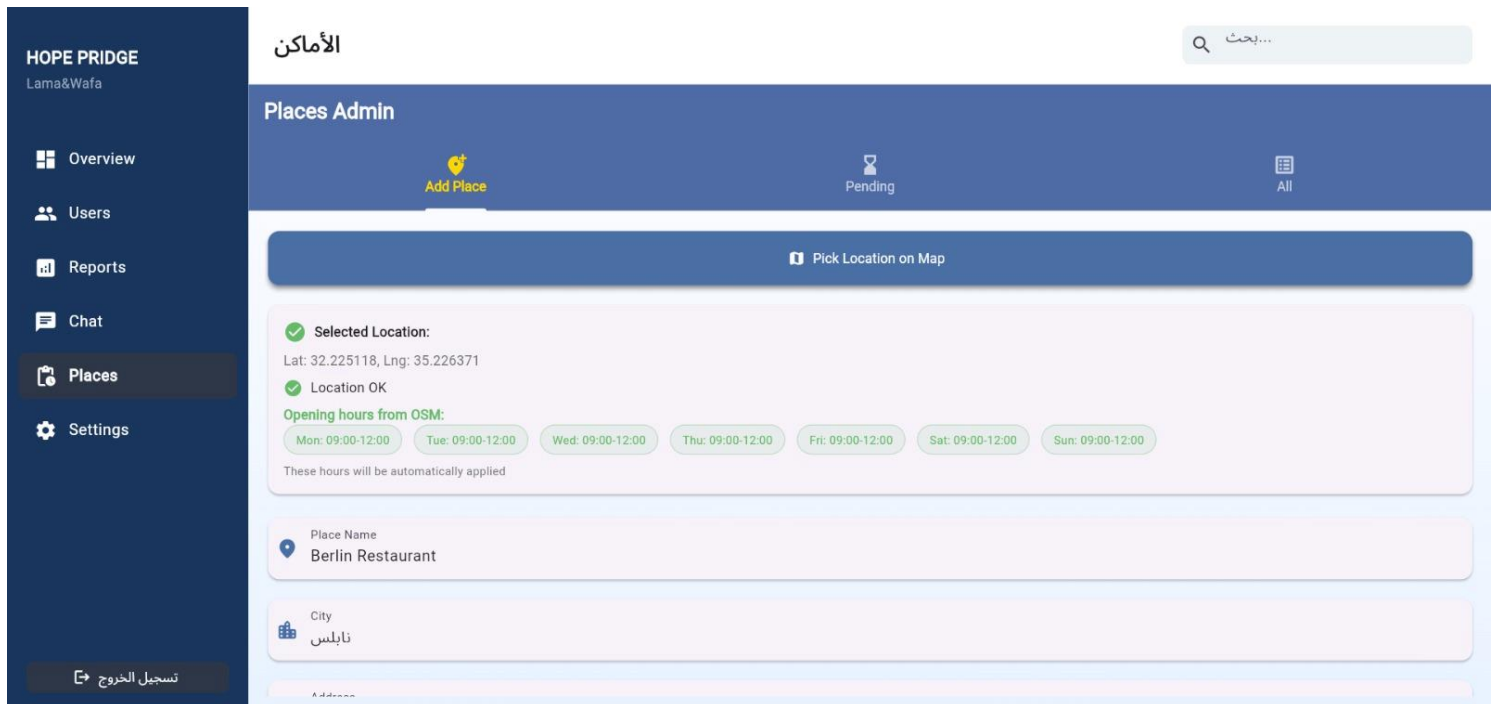
229 admin chat page



230 admin places page1



231 admin places page2



232admin places page3

HOPE PRIDGE
Lama&Wafa

- Overview
- Users
- Reports
- Chat
- Places**
- Settings

تسجيل الخروج

الأماكن بحث...

Places Admin

Add Place
Pending
All

Pick Location on Map

✔ **Selected Location:**
Lat: 32.225118, Lng: 35.226371

✔ **Location OK**

Opening hours from OSM:

Mon: 09:00-12:00
Tue: 09:00-12:00
Wed: 09:00-12:00
Thu: 09:00-12:00
Fri: 09:00-12:00
Sat: 09:00-12:00
Sun: 09:00-12:00

These hours will be automatically applied

Place Name
Berlin Restaurant

City
نابلس

233 admin places page4

HOPE PRIDGE
Lama&Wafa

- Overview
- Users
- Reports
- Chat
- Places**
- Settings

تسجيل الخروج

الأماكن بحث...

Places Admin

Add Place
Pending
All

Address
Berlin Restaurant, 0, الأراضي الفلسطينية, 00972, الضفة الغربية, منطقة أ، نابلس, جنيد, نابلس, طلعة علاء الدين, جنيد, نابلس

Description

Type
restaurant

Supported Features

wheelchair
hearing
visual
cognitive
autism_friendly
speech
elevator
accessible_restroom
braille
sign_language
reserved_parking
low_counter
service_animal_friendly

234 admin places page5

HOPE PRIDGE
Lama&Wafa

- Overview
- Users
- Reports
- Chat
- Places**
- Settings

تسجيل الخروج

الأماكن

Places Admin

Add Place
Pending
All

restaurant

Supported Features

wheelchair
 hearing
 visual
 cognitive
 autism_friendly
 speech
 elevator
 accessible_restroom
 braille
 sign_language
 reserved_parking
 low_counter
 service_animal_friendly

Opening hours available from OSM

Use OSM opening hours

Mon: 09:00-12:00
Tue: 09:00-12:00
Wed: 09:00-12:00
Thu: 09:00-12:00
Fri: 09:00-12:00
Sat: 09:00-12:00
Sun: 09:00-12:00

These hours will be automatically applied

Submit

235 admin places page6

← Edit Place
Save

Edit Place Details

Update the place information below

Basic Information

Place Name
Berlin Restaurant

City
نابلس

Address
طلعة علاء الدين, جنيد, نابلس, منطقة أ، الضفة الغربية, 00972, الأراضي الفلسطينية

Phone

Website

Place Type

236 admin place management page1

Edit Place Save

Place Type

Select Type
restaurant

Supported Features

wheelchair
 hearing
 visual
 cognitive
 autism_friendly
 speech
 elevator
 accessible_restroom
 braille
 sign_language
 reserved_parking
 low_counter
 service_animal_friendly

Working Hours

Monday +

Open: 09:00 Close: 12:00 -

Tuesday +

Open: 09:00 Close: 12:00 -

Wednesday +

Open: _____ Close: _____

237 admin place management page2

Edit Place Save

Wednesday +

Open: 09:00 Close: 12:00 -

Thursday +

Open: 09:00 Close: 12:00 -

Friday +

Open: 09:00 Close: 12:00 -

Saturday +

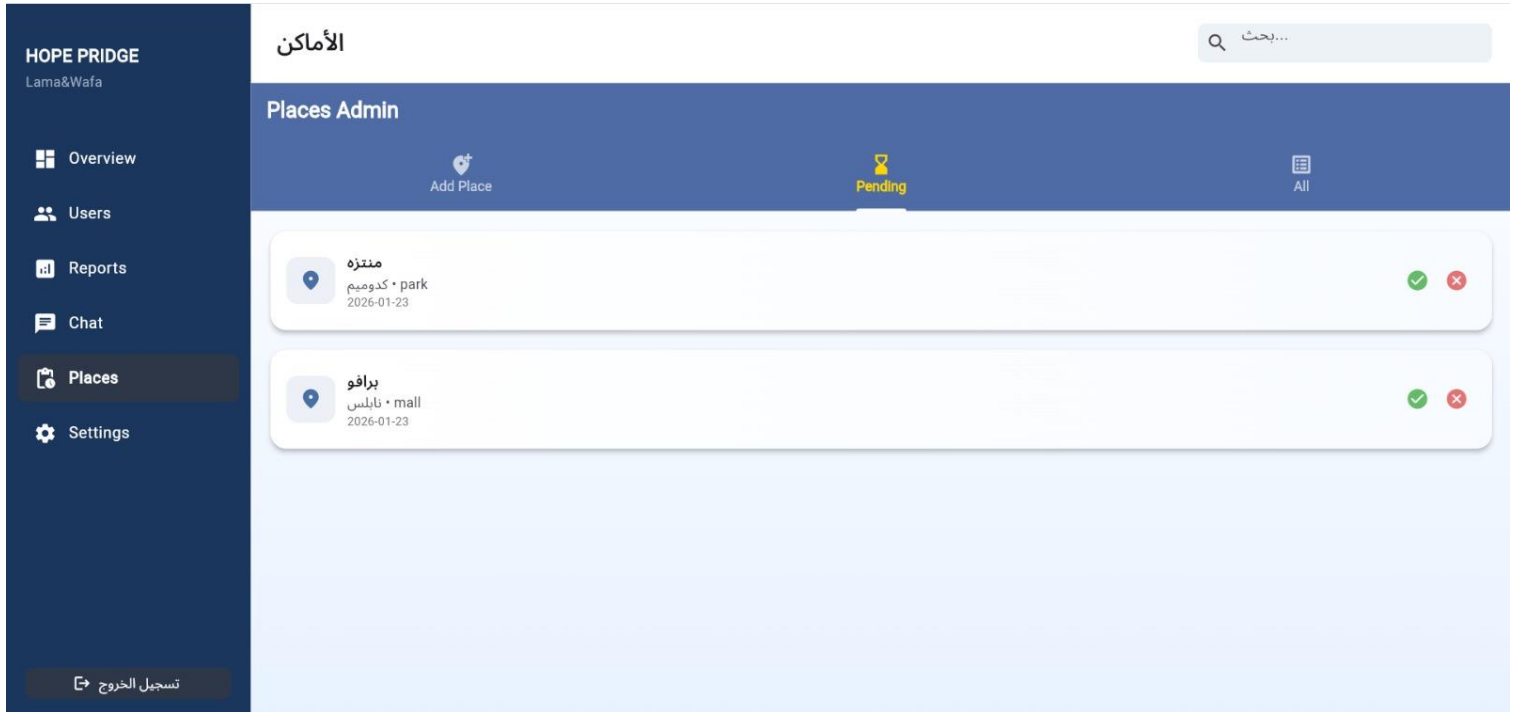
Open: 09:00 Close: 12:00 -

Sunday +

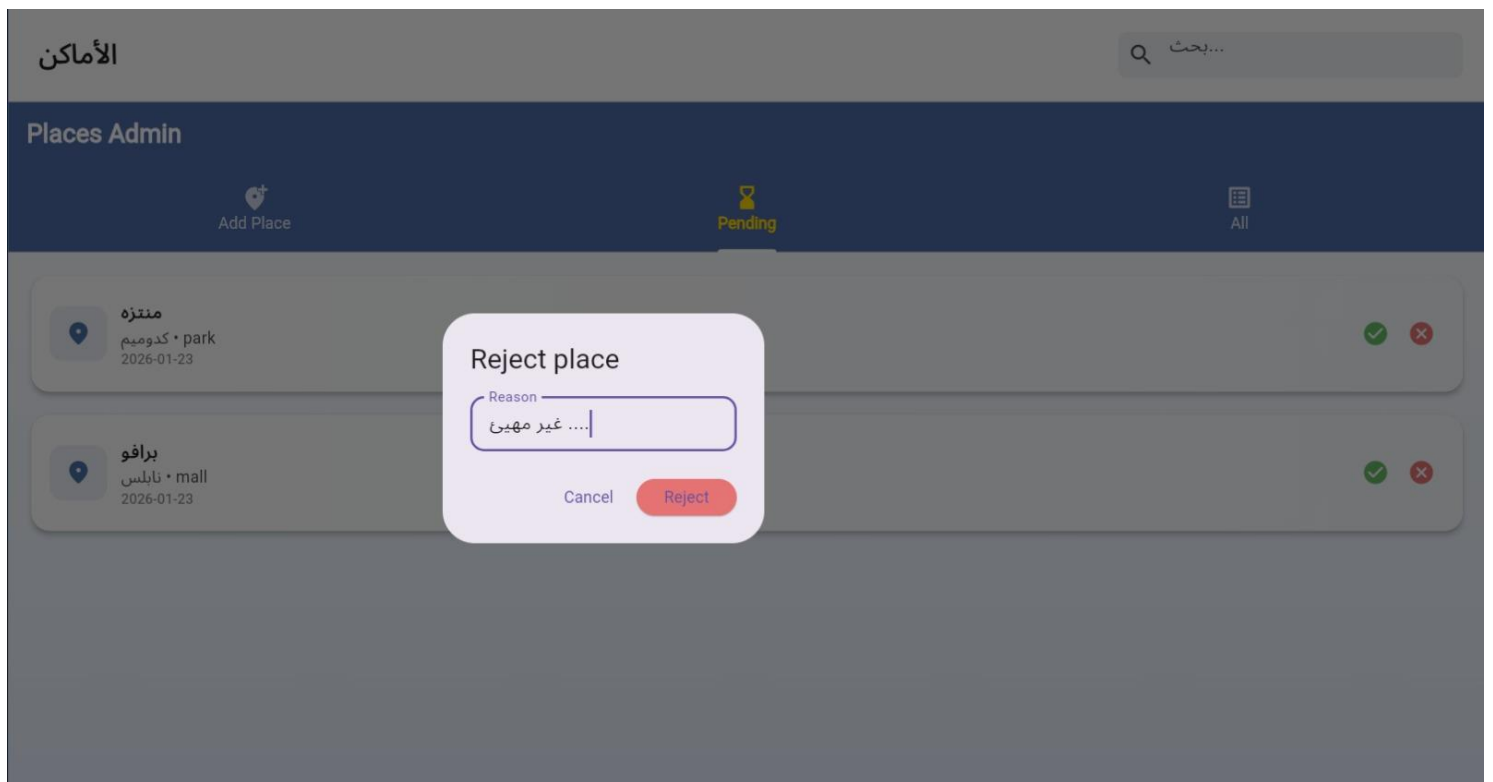
Open: 09:00 Close: 12:00 -

Save Changes

238 admin place management page3



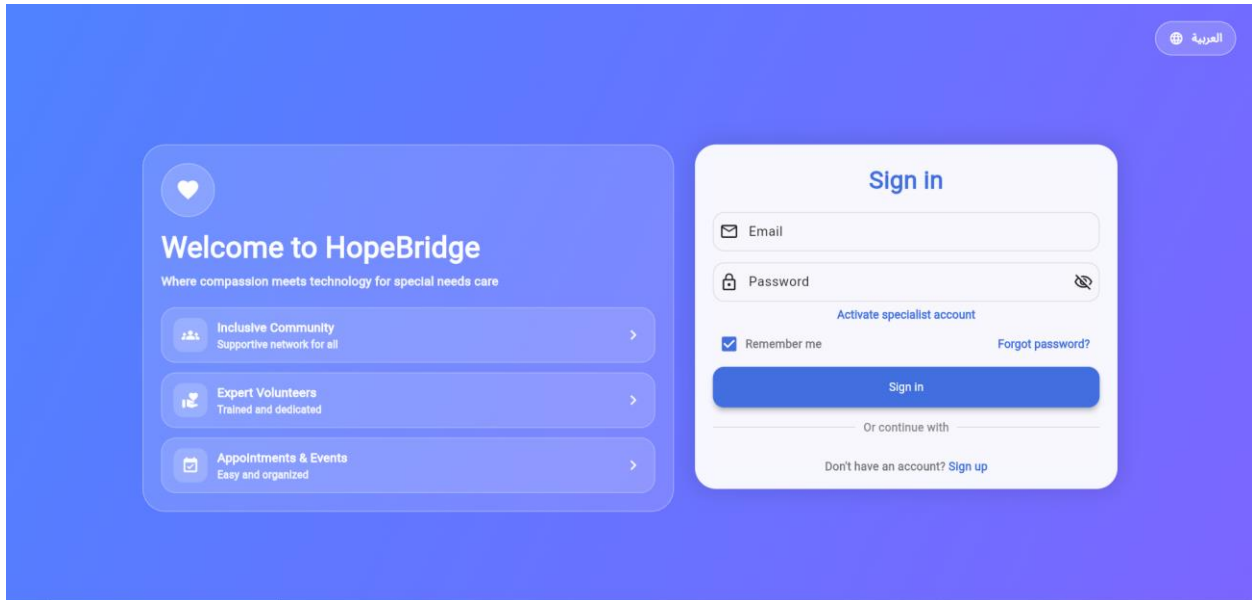
239 admin -pending places page



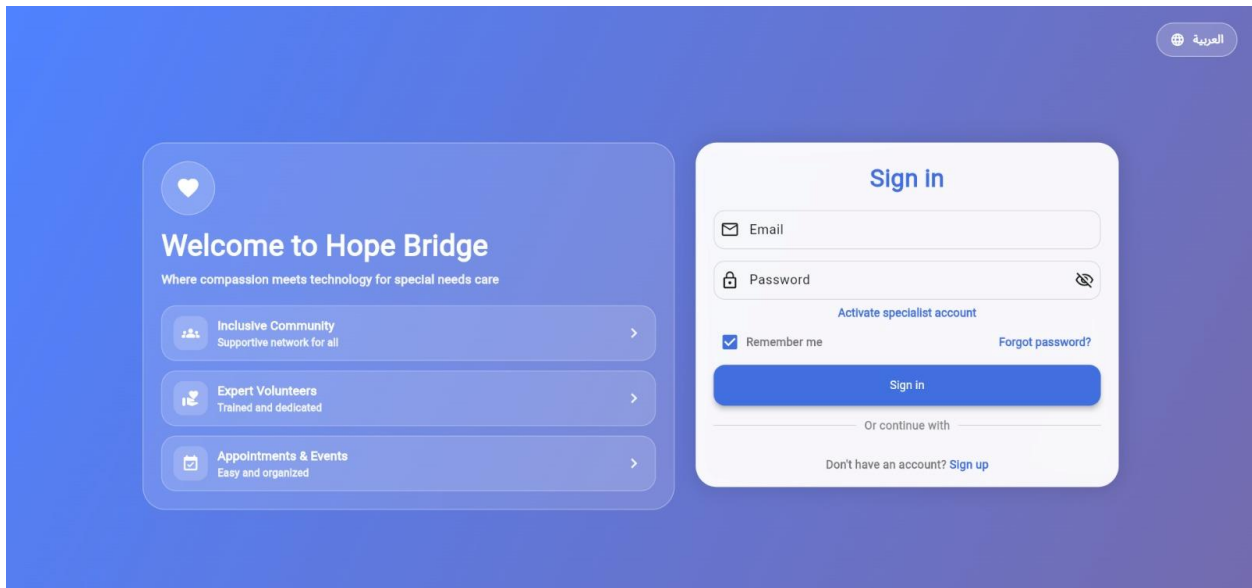
240 admin reject place page

Web pages

*Note: feature in the web same as in the mobile

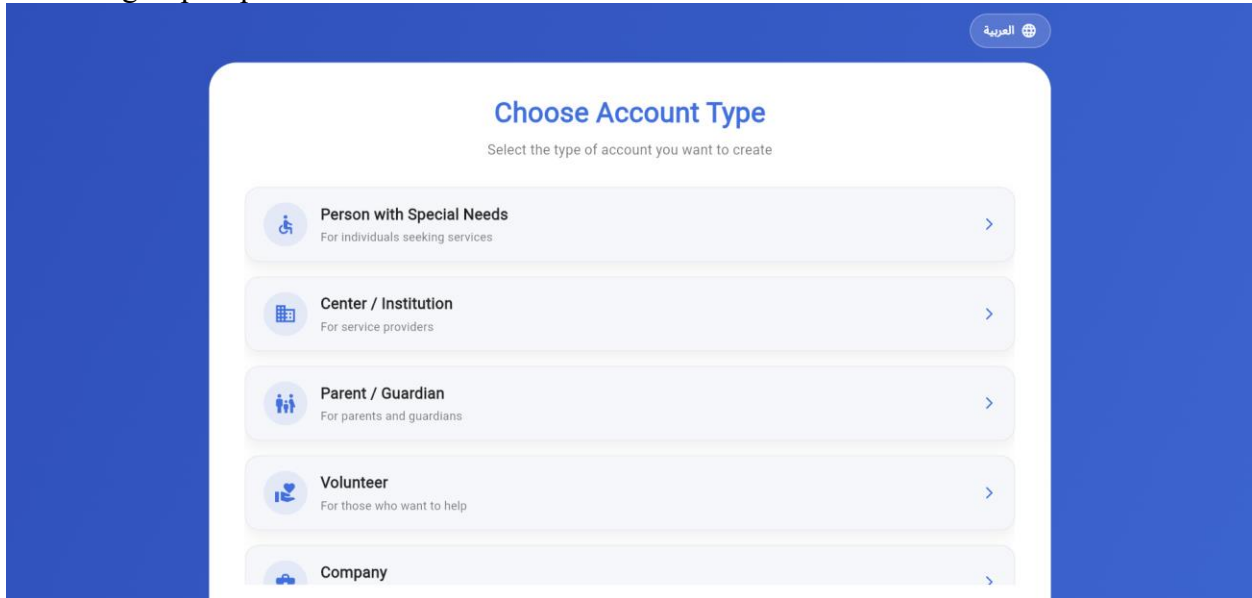


241 welcome page (web)

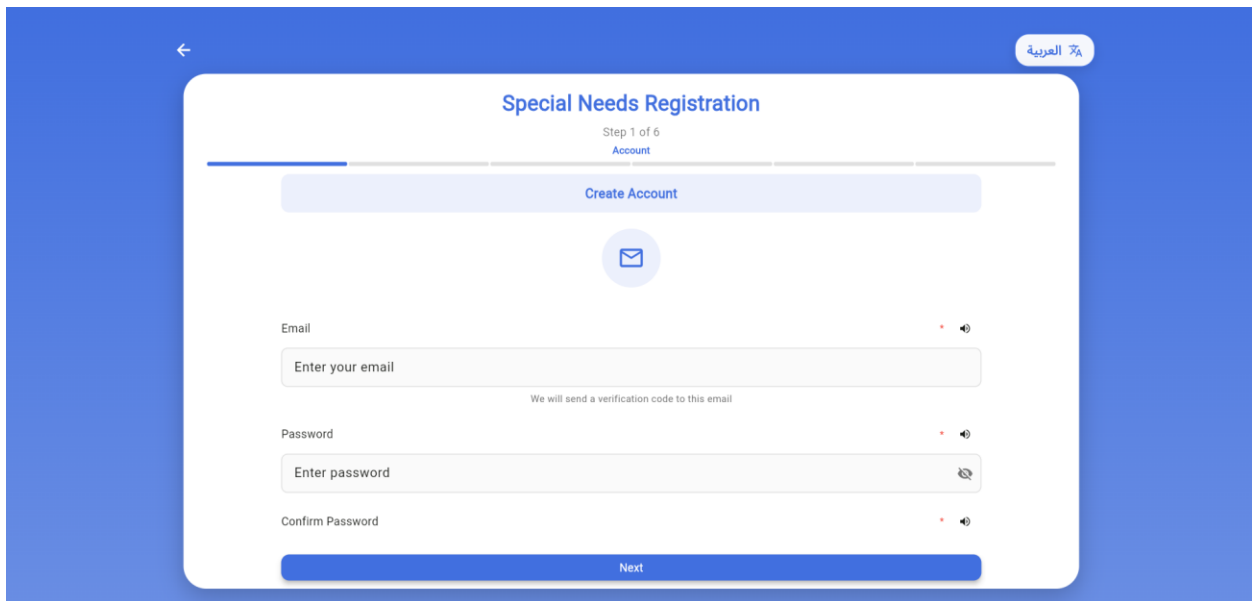


242 sign in page(web)

*Note: sign-up steps on the web are the same as mobile



243 choose user type (web)



244 special needs sign up page (web)

245 center sign up page (web)


246 parent sign up page(web)

العربية

Volunteer Registration

Step 1 of 5
Account

Create Account



Email *

Password *

Confirm Password *

Next


247 volunteer sign up page (web)

← العربية

Company Registration

Step 1 of 6
Account

Create Account



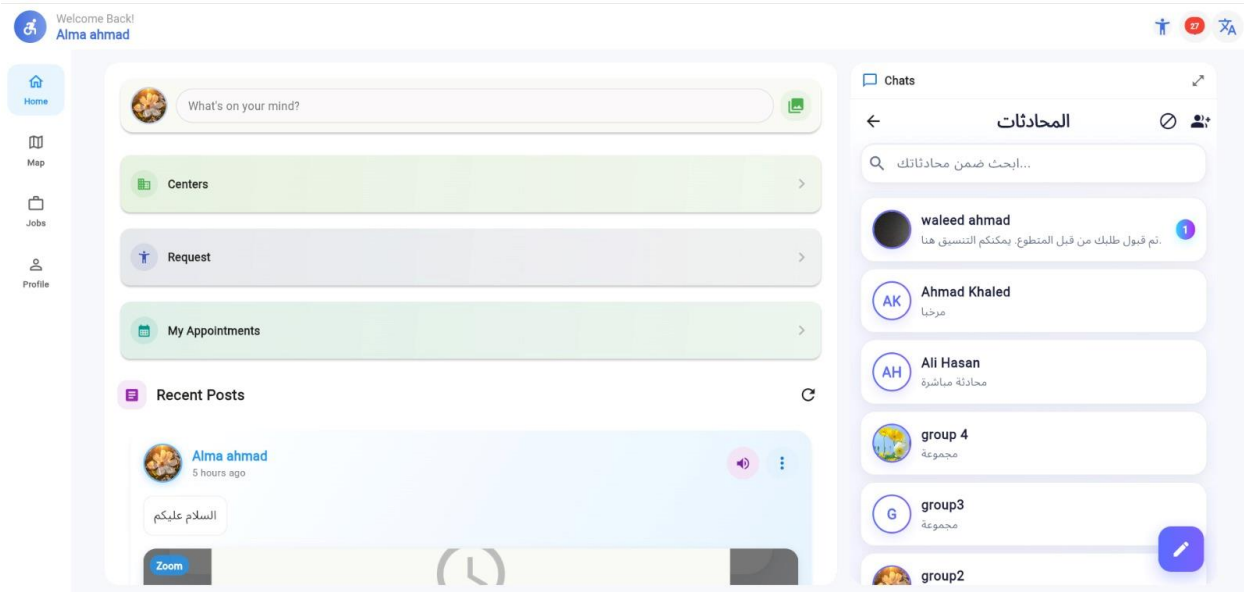
Email *

Password *

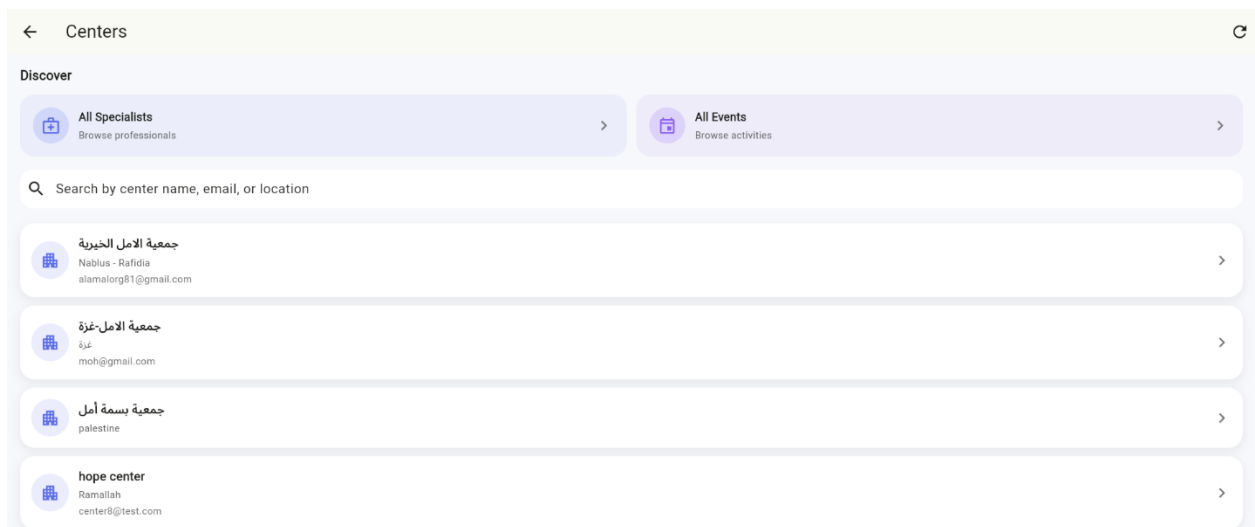
Confirm Password *

Next

248 company sign up page (web)



249 special needs dashboard page(web)



250 spaecial needs center page (web)

← Find a Specialist 📅 ↻

🔍 Search by name, specialty, description...


👤 9 Available 💰 5 Paid 🆓 4 Free

Filters

All Roles All Specialties All Payments All Work Types

Specialists Found 9 results

👤 Doctor Eyes

 Husam abdulraheem

📍 Organization: جمعية بسمة أمل

🕒 55 per session Permanent

About
دكتور اخصائي تقييم ممتاز

📅 Book Appointment

👤 Speech Therapist

251 special needs all specialist page (web)

← Events 📅

🔍 Search events...

▼ All ▼

For Me All Events

📅	📅	🕒	📍
13	13	0	13
Total	Active	Past	Shown

دورة تعليمية Active

All Disabilities In person

دورة لذوي الاحتياجات

📅 2026-01-26 • 10:08 - 11:08

👤 Presenter: محمود

📍 نابلس

Join Event

تعلم لغة الإشارة Active

252 special needs all events page (web)

← My Appointments ↻

All
Booked
Completed
Cancelled
Rescheduled

19 Total
6 Upcoming
4 Completed
5 Cancelled
1 Rescheduled

عنوان جديد للفعالية 4 Event

📅 2025-12-05 • 10:00 - 13:00

📍 القدس

Specialist Cancelled

📅 07/12/2025 • 09:00 - 09:30

👤 Booked by: Fidaa Mahmoud

Cannot cancel this appointment

Specialist Completed

📅 07/12/2025 • 09:30 - 10:00

👤 Booked by: Fidaa Mahmoud

★ Rate

Autism Support Workshop Event

+ New appointment

253 special needs my appointment page(web)

← My companion requests

OPEN
PENDING
ACCEPTED
COMPLETED
CANCELLED

2025-12-30 14:00-15:00 COMPLETED

📍 شارع الجامعة • نابلس

📄 Free Services: 1

Daily Companion

Rate

2025-12-30 14:00-16:00 COMPLETED

📍 شارع الجامعة • نابلس

📄 Free Services: 1

Daily Companion

Rate

2025-12-30 14:00-16:00 OPEN

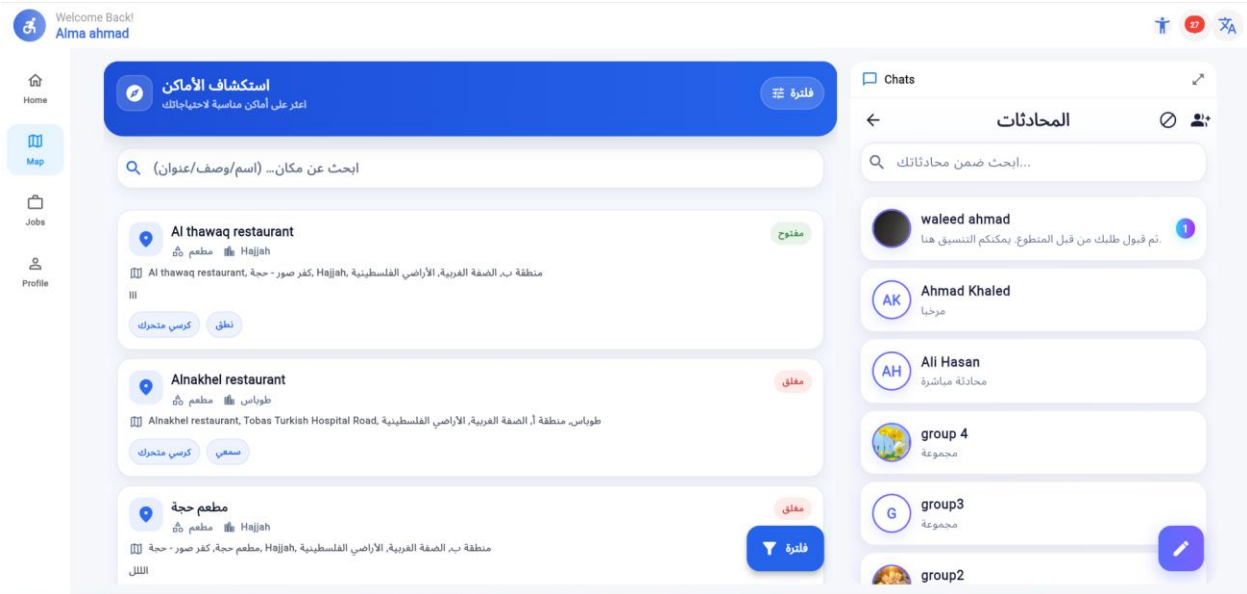
📍 شارع الجامعة • نابلس

📄 Paid • total: 0.00 Services: 1

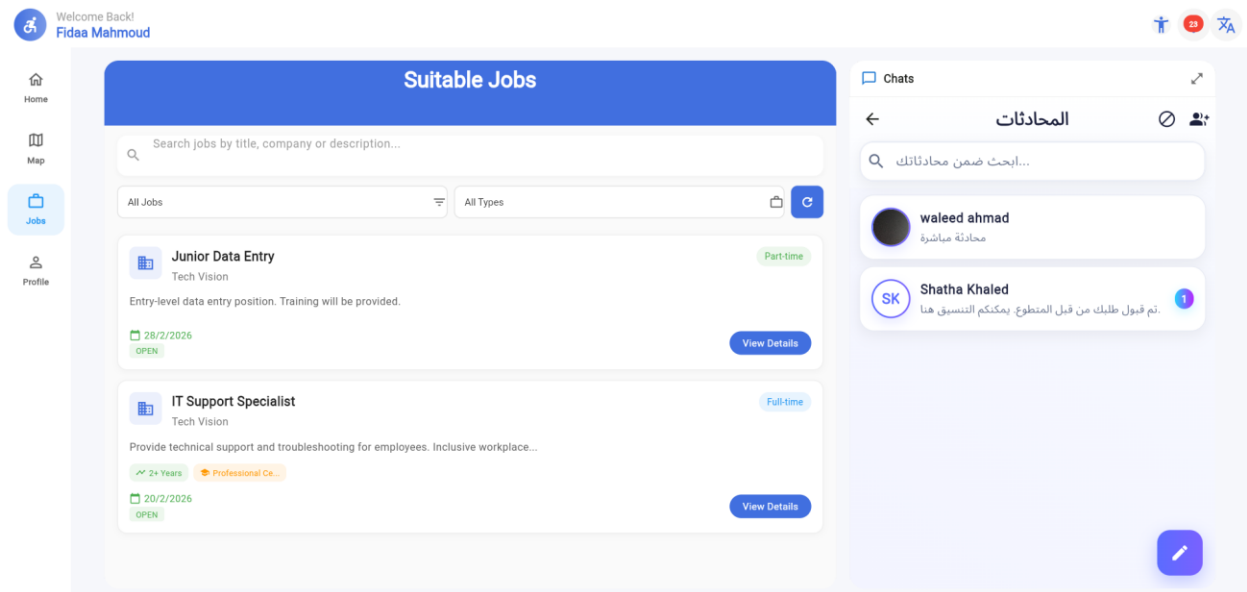
Daily Companion

+ New request

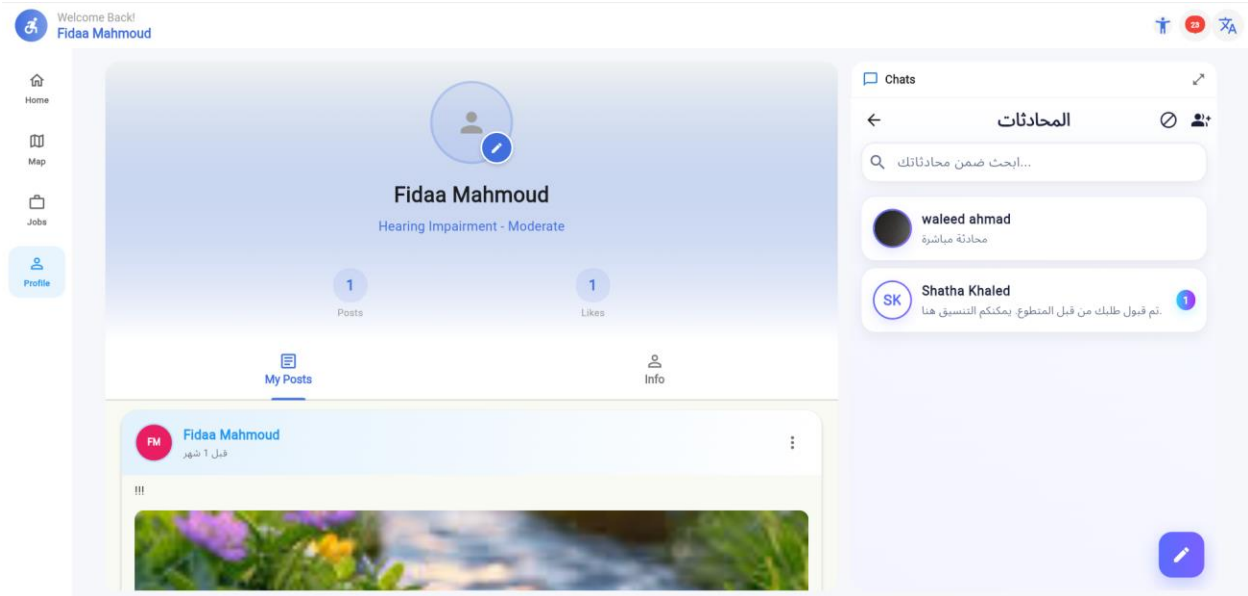
254 special needs my appointment page (web)



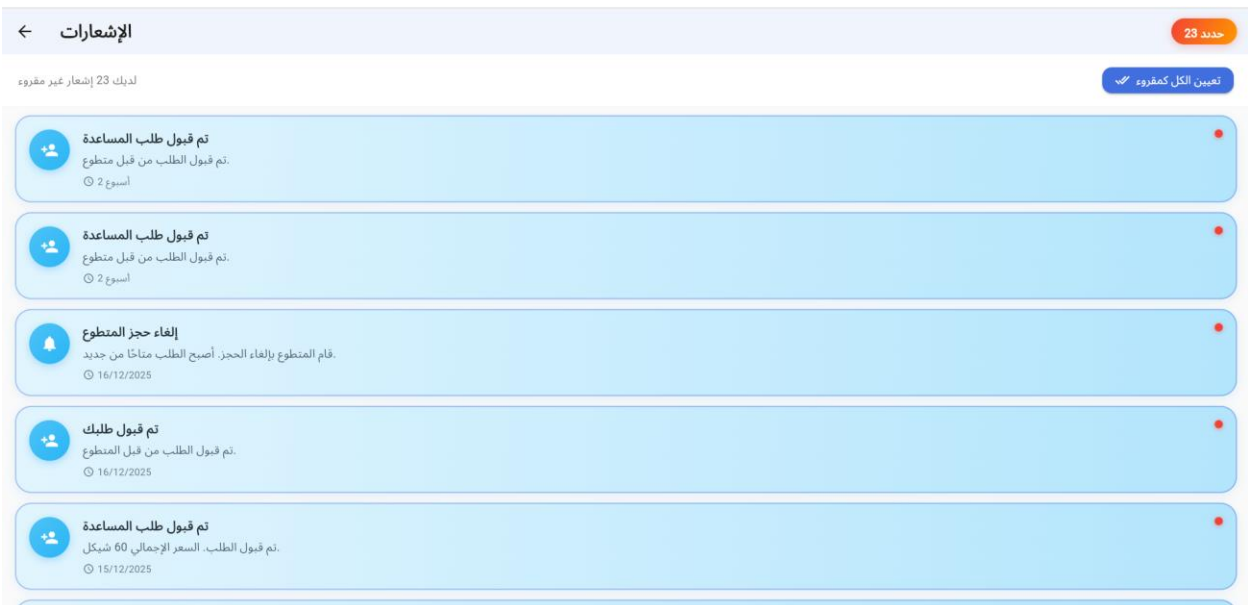
255 special needs map page (web)



256 special needs jobs page (web)



257 profile page (web)



258 notification page (web)

Welcome!
lana enad hag

20 Posts 12 Events 24 Appointments 89% Rating

Quick Actions

- My Events**
View and manage your events
- My Appointments**
Check your upcoming appointments
- Available Slots**
Manage your available time slots
- Recent Posts**
Alma ahmad 3 hours ago

Dashboard Chats Profile

259 specialist dashboard page(web)

← Activate Specialist Account

Your center created your specialist account. Enter the token you received by email and set a password.

Email

Activation Token

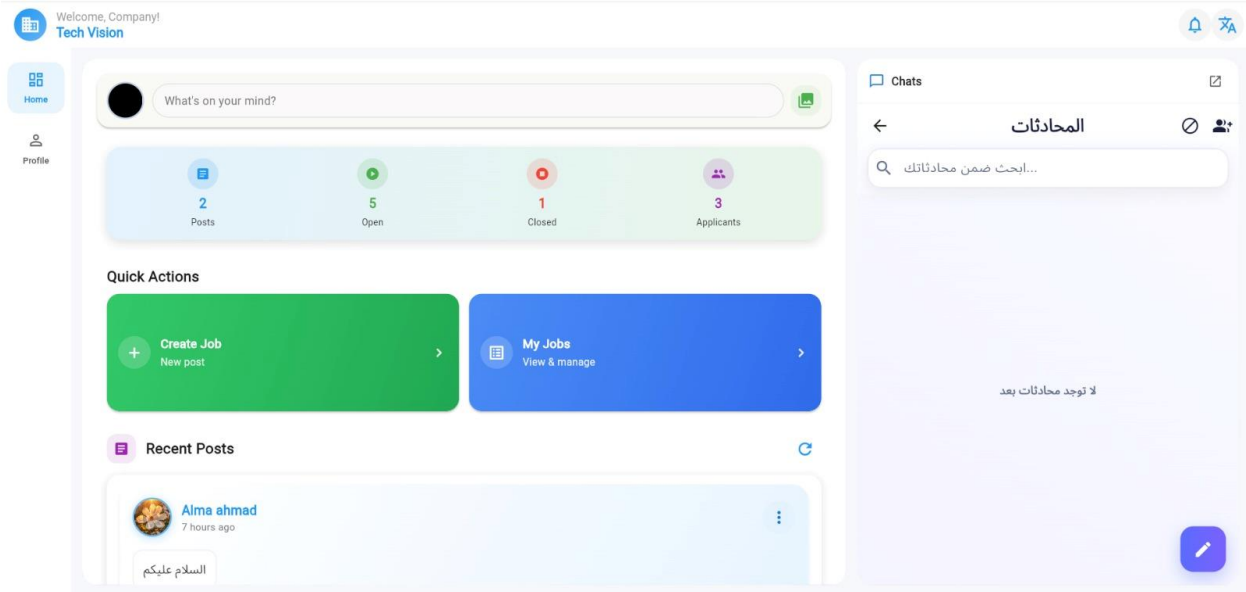
New Password

Confirm Password

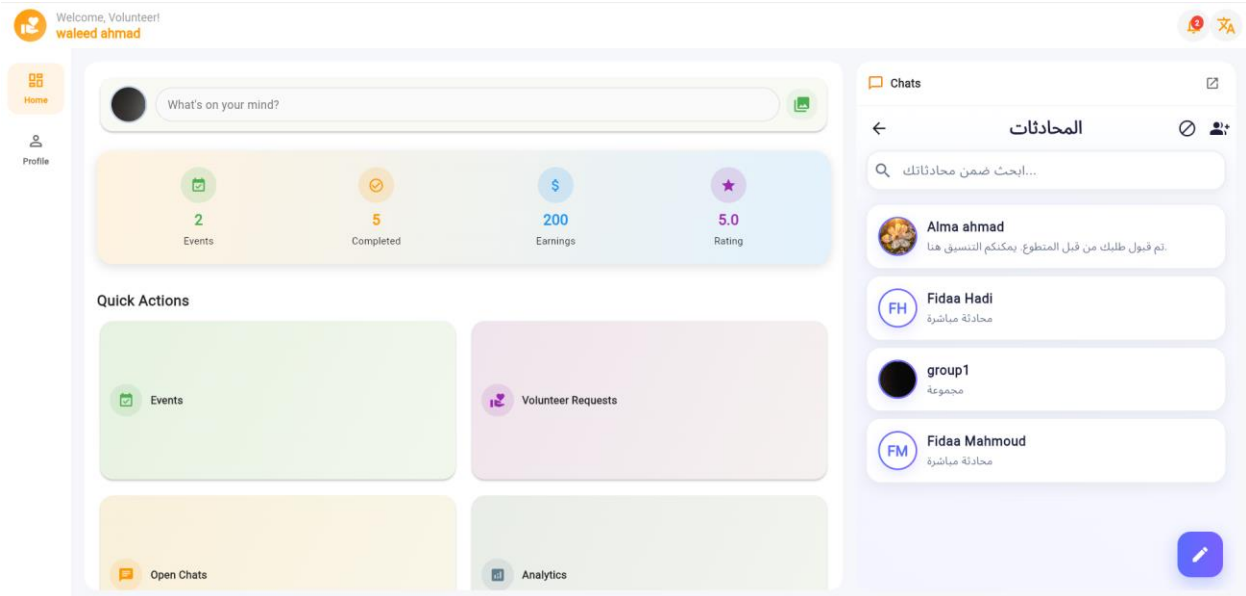
Activate

Didn't receive the email? Resend

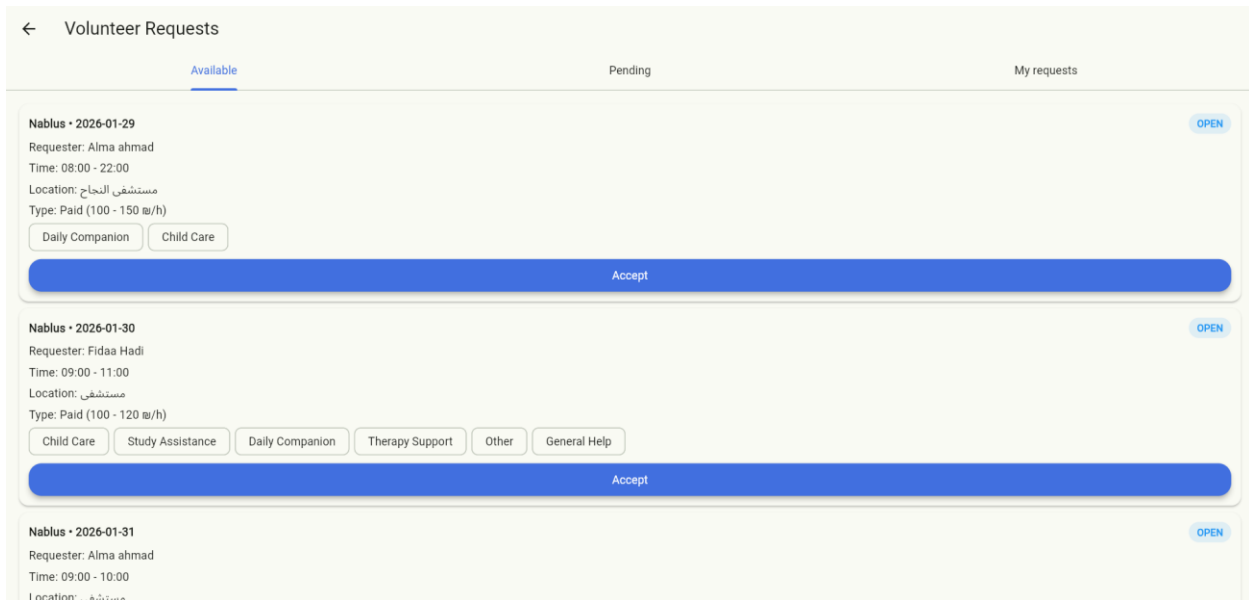
260 specialist activate page (web)



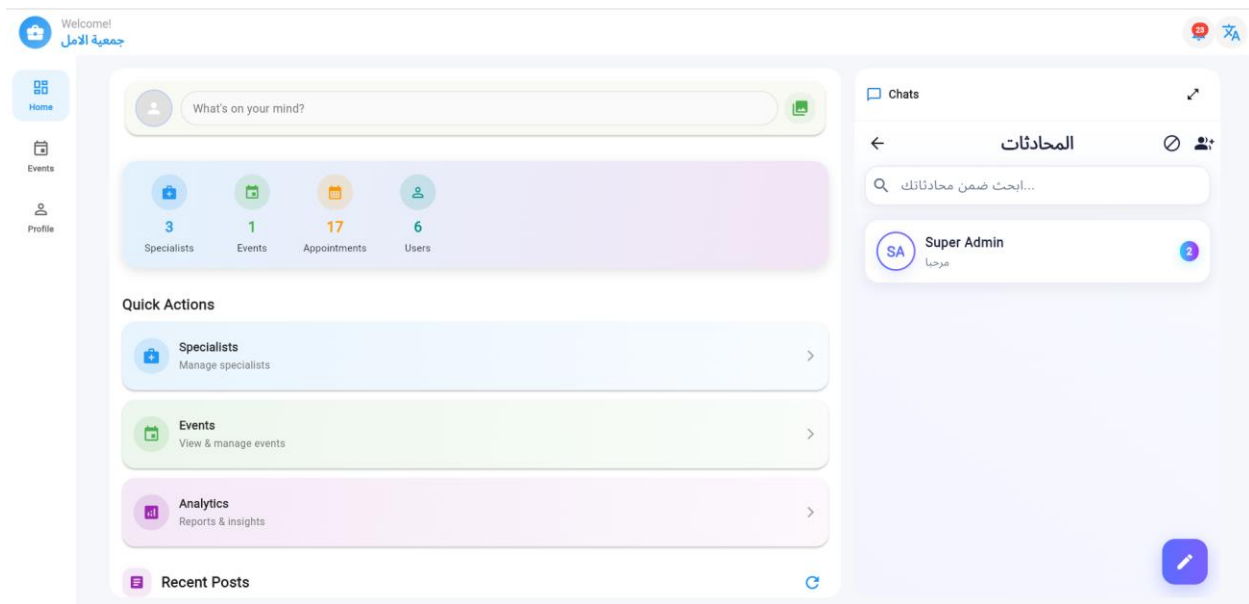
261 company dashboard page (web)



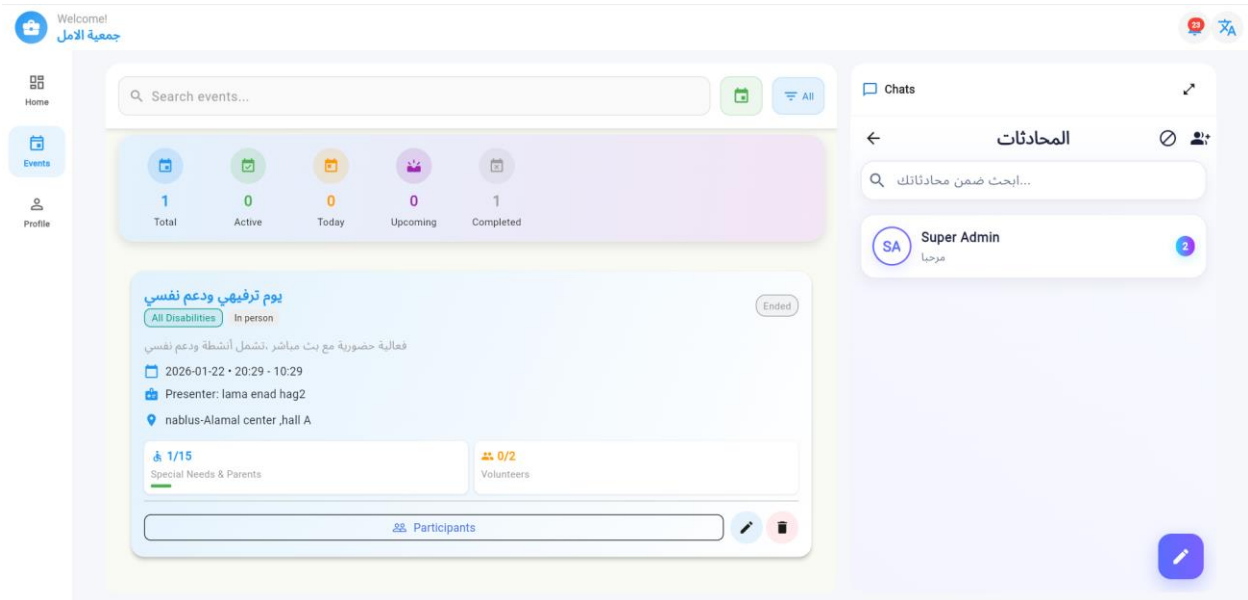
262 volunteer dashboard page (web)



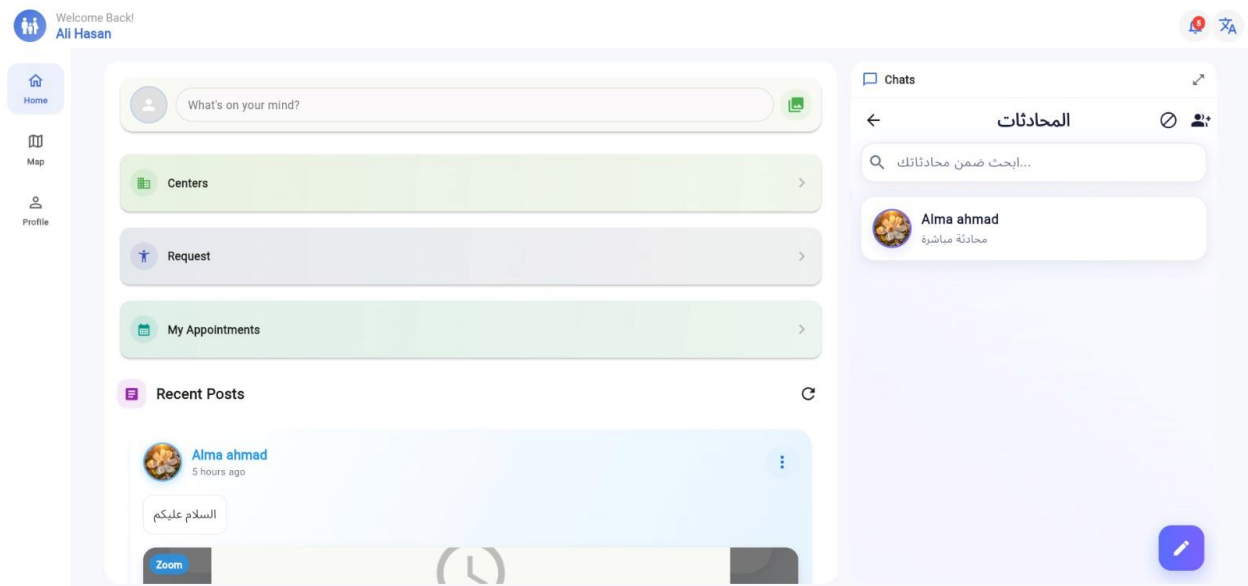
263 volunteer request page (web)



264 center dashboard page (web)



265 center event page (web)



266 parent dashboard (web)

Discussion

The development of the HopeBridge platform demonstrates how technology can be effectively utilized to address real-world challenges faced by people with special needs. Throughout the implementation of the system, several important technical, functional, and social aspects were explored, revealing both the strengths of the proposed solution and the challenges encountered during development.

One of the most significant outcomes of this project is the successful integration of multiple services into a single unified platform. By combining appointments, events, volunteer requests, job opportunities, accessible places, and communication tools, HopeBridge reduces fragmentation and simplifies user interaction. This integration enhances usability and ensures that users with special needs, parents, volunteers, and organizations can interact efficiently within a well-structured environment.

The inclusion of the AI-based Arabic Sign Language recognition and training module represents a key innovative aspect of the project. The high accuracy achieved by the trained model indicates the effectiveness of using deep learning and computer vision techniques for sign language recognition. Moreover, embedding this technology into an interactive training mode adds practical value, transforming the AI component from a purely technical feature into a meaningful assistive tool. However, the reliance on a server-based inference architecture introduces dependency on network availability and server performance, which highlights an area for potential future optimization through full on-device inference.

From a system design perspective, the use of role-based access and approval workflows contributed significantly to system security and data integrity. These mechanisms ensure that sensitive actions, such as managing specialists, publishing jobs, or accessing volunteer requests, are restricted to authorized users. At the same time, enforcing scheduling constraints for appointments and events helps prevent conflicts and ensures fair access to services.

Despite these strengths, the project also faced several challenges. Designing a platform that accommodates a wide variety of user roles required careful planning to balance flexibility with simplicity. Additionally, ensuring accessibility across mobile and web platforms required continuous testing and UI adjustments. These challenges, however, provided valuable insights into inclusive system design and emphasized the importance of user-centered development.

Overall, the results of this project indicate that HopeBridge is a viable and effective solution for supporting people with special needs. The system not only fulfills its functional requirements but also contributes to promoting accessibility, inclusion, and social engagement. The discussion highlights that while further enhancements are possible, particularly in performance optimization and AI deployment, the current implementation successfully meets its intended goals and provides a strong foundation for future development.

Conclusion

The HopeBridge project was developed with the primary objective of creating an inclusive and accessible digital platform that addresses the real needs of people with special needs and supports their integration into society. Throughout this project, these objectives were successfully achieved by designing a system that connects users with specialists, centers, volunteers, events, job opportunities, and accessible places within a single unified platform. One of the core goals of HopeBridge was to enhance accessibility and communication. This was accomplished through user-friendly interfaces, adaptive accessibility settings, and the integration of an AI-based Arabic Sign Language recognition and training module. This intelligent component enables users with hearing impairments, as well as parents and volunteers, to learn and practice sign language in an interactive and practical manner, thereby improving communication and social inclusion.

Another key objective was to ensure reliability, fairness, and proper organization of services such as appointments, events, and volunteer requests. The system enforces clear rules to prevent scheduling conflicts, manage waiting lists, and ensure transparent interaction between all parties. In addition, the platform supports role-based dashboards and approval workflows, ensuring that each user accesses features appropriate to their role.

Finally, the project aimed to build a scalable and maintainable technical solution. This was achieved through a modular backend architecture, a cross-platform Flutter application, secure data management, and cloud-based media storage. In conclusion, HopeBridge fulfills its intended objectives and demonstrates how modern software engineering and artificial intelligence can be effectively applied to support people with special needs, promote accessibility, and create a more inclusive digital environment.

Future Work

- Expand HopeBridge as a community-based platform by strengthening collaboration between users, volunteers, specialists, centers, and companies.
- Enhance the AI-based sign language training system to support dynamic gestures, words, and sentence-level recognition.
- Integrate on-device AI inference to allow offline usage and improve performance.
- Increase data availability for accessible places and services through partnerships with organizations and public institutions.
- Introduce intelligent recommendation features to personalize services and opportunities for users.
- Improve accessibility features and adaptive interfaces to better serve different disability types.
- Develop advanced analytics and reporting tools to measure engagement, impact, and system effectiveness.
- Enable integration with specialized stores that provide assistive products and equipment for people with special needs, including the creation of an in-app marketplace.
- Expand company functionality by enabling in-app job applications and end-to-end recruitment management within the platform.
- Conduct continuous user testing and community feedback studies to refine usability and functionality.