

An-Najah National University

Requirements of Graduation Project report



Faculty of Engineering & Information Technology
Computer Engineering Department
Graduation Project 1

Safrly



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No one walks the path to success alone; we are surrounded by loved ones, teachers, and friends who provide support and warmth.

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Finally, we dedicate this accomplishment to our beloved homeland, Palestine, a land full of stories of resilience and challenge, and to our people in Gaza, who despite all hardships remain a symbol of courage and determination, inspiring us all with their endless spirit of resistance and perseverance.

Disclaimer

This project is based on the requirements of the Computer Engineering program at An-Najah National University and reflects the student's efforts, thoughts, and interpretations. Therefore, these academic materials should be used only for appropriate educational purposes.

The information, methods, and content presented in this project are the result of the authors' research and efforts alone. Any opinions or conclusions expressed do not necessarily reflect the official views or policies of An-Najah National University.

Abstract

This project proposes the development of a smart tourism and transportation application designed specifically for Palestine (Safrly). The system aims to provide a centralized platform for tourists and local users to enhance their travel and hospitality experience.

The application includes a comprehensive directory of hotels across various cities, displaying information such as images, prices, ratings, services, star classification, breakfast availability, and nearby landmarks. The app offers an integrated transportation service where tourists can request taxis, with the best price calculated using AI algorithms that determine the shortest routes and optimal fares.

It features a user-friendly interface with options like dark mode to make navigation easier. AI is used to provide personalized recommendations for cultural, historical, and tourist sites based on user preferences. A built-in chatbot guides users through the system, making the experience interactive.

Tourists can request certified tour guides, each with a detailed profile including personal information and pricing. The app also includes a translation feature to ensure communication regardless of language and supports submitting digital requests for entry into Palestinian territories with notifications upon processing.

The platform incorporates a rating and review system for hotels, guides, and taxi services, flexible payment options, and a dedicated offers section.

The project methodology relies on developing an easy-to-use interface, integrating AI for personalized services, and building a robust backend system.

Although there are global tourism applications, there is currently no application focusing specifically on Palestine that combines integrated transportation, hotel booking, certified tour guides, AI-based multilingual support, digital entry request features, and interactive offers, making this project unique and tailored to local needs.

By combining tourism services, smart transportation, multilingual support, and interactive AI features, this project seeks to deliver a comprehensive solution that facilitates tourism in Palestine and contributes to the development of the local service economy

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1-Introduction

1.1 Problem :

Tourists visiting Palestine, especially those who do not coordinate with tourism companies or have local contacts, often lack knowledge about the available tourist sites. They also face difficulties finding nearby hotels and reaching them easily, which leads to wasting time and effort searching for suitable transportation like taxis.

The Palestinian economy suffers from noticeable weakness due to the low flow of tourists, which directly affects the tourism sector and its related services. Therefore, the application includes certified tour guides to provide the necessary support for tourists, helping them have a better travel experience, boosting tourism activity, and contributing to the local economy.

Based on this, there is a clear need for an easy-to-use application that enables tourists to plan their trips in an organized way, book hotels and transportation efficiently, while reducing the time, effort, and associated costs.

1.2 Objectives of the work:

This project aims to develop a smart application called (Safrly) that facilitates the travel and accommodation experience for tourists and local users in Palestine by providing a comprehensive hotel directory containing detailed information to help users choose the most suitable option.

The application also seeks to offer an integrated and smart transportation service for booking taxis at prices calculated using artificial intelligence algorithms, in addition to providing personalized recommendations for tourist sites through AI technologies and an interactive experience via a built-in chatbot.

The app allows users to request certified tour guides with detailed profiles and includes a translation service to ensure smooth communication. It also supports submitting digital requests for entry into Palestinian territories. The platform includes a rating and review system for hotels, guides, and transportation services to enhance transparency and ensure service quality, along with a user-friendly interface supporting modern features such as dark mode and flexible payment options.

1.3 Scope of work:

The application focuses on meeting the needs of tourists who visit Palestine independently, especially those who do not coordinate with tourism companies. It provides them with integrated services including displaying tourist sites, booking hotels, requesting taxis, hiring certified tour guides, and facilitating the booking of entry permits to the occupied Palestinian territories. The application aims to support the tourism sector and enhance the Palestinian economy.

1.4 Importance:

The importance of this project lies in solving the problems faced by tourists during their visit to Palestine. We have improved the user experience by facilitating transportation and saving their time and effort.

We also provided a way to book accommodations and an integrated transportation service that helps tourists move easily and quickly. Additionally, the project creates job opportunities for tour guides by integrating them into the system. Thus, the project contributes to supporting the local economy by enhancing the use of tourism services.

1.5 Report organization:

The report is organized as follows:

Chapter Two: Constraints and Standards\Rules discusses the challenges faced during the implementation of the project.

Chapter Three: Literature Review We identified what distinguishes this project from others.

Chapter Four: Methodology and techniques used in the project.

Chapter Five: The results of the project will be discussed.

Chapter Six: The results of this application were discussed.

Chapter Seven: It will talk about the conclusion and some features that will be added to the project in the future.

Chapter Eight: Includes the references used.

2 Constraints and Earlier course work

2.1 Constraints:

2.1.1 Time Management :

One of the main challenges we faced during the development of this project was time management, as the project was carried out alongside university academic commitments. This required balancing attendance at lectures and laboratory sessions, completing assignments, and preparing for exams, in addition to allocating sufficient time for project development, which made effective time organization and utilization a significant challenge.

2.1.2 Limited Experience:

During the development of this project, I faced a challenge due to insufficient familiarity with some of the tools and technical concepts required for implementation. To overcome this, I relied on self-learning and continuous practice by following available online tutorials and applying what I learned in practice, which helped me develop the necessary skills and successfully complete the project.

2.2 Earlier course work:

The development of this project was built upon the knowledge and skills I acquired from previous coursework, which included Object-Oriented Programming (OOP), Entity-Based Programming, Artificial Intelligence, Advanced Web Development, and Database Management. Additionally, my experience in user interface design and web development helped ensure the successful completion of the project. These courses provided a strong foundation that enabled me to implement the project effectively.

3 Literature Review

The tourism industry has evolved significantly in recent years, creating a growing demand for comprehensive applications that offer more than just basic services. While existing apps like Booking.

com focus primarily on hotel reservations and Uber on transportation, they lack integrated solutions for tourists. Our application stands out by combining multiple essential features into one platform.

Besides allowing users to explore tourist attractions and book accommodations and taxis, it also enables tourists to reserve tour guides and obtain permits for entering Palestinian territories.

Furthermore, the app offers a discount system that incentivizes users to engage more with local services, helping to boost the regional economy. This holistic approach ensures a seamless and enriched experience tailored to the unique needs of tourists visiting Palestine.

4 Methodology

During the development of the mobile application and backend system, a variety of modern tools and technologies were utilized. There are essential components that cannot be overlooked when designing applications and websites, such as frameworks, programming languages, and development tools. These elements will be explained in detail in the following sections.

4.1 Software needs :

4.1.1 Database:

The server uses MySQL as the database management system. MySQL is a popular open-source relational database that organizes data into related tables. It is widely used in web applications due to its reliability and robustness, as well as its support for Structured Query Language (SQL). The system communicates with the database to efficiently manage and process data.

4.1.2 Mobile Application:

We chose the **Flutter** framework to develop our application because it allows building apps that run on multiple operating systems, such as Android and iOS, using a single codebase. Flutter is known for its ease of use and flexibility in app development, providing developers with a comfortable and efficient working environment. Additionally, it is an open-source project with a vast library of documentation and resources that simplify and speed up the learning and development process.

4.1.3 Website:

The Flutter framework was leveraged in developing the website, enabling me to reuse the same components and functionalities previously implemented in the mobile application without the need for separate redesign or redevelopment.

Flutter's support for web application development is a significant advantage, allowing the creation of interactive and responsive pages that perform efficiently across various web browsers.

Consequently, I added customized administrative features that empower administrators to effectively control and manage the website content, facilitating maintenance and updates, and ensuring a smooth user experience for both visitors and administrators.

4.1.4 Server Side:

PHP was used to develop the APIs that handle Create, Read, Update, and Delete (CRUD) operations, as well as manage authentication mechanisms. The system relies on a MySQL database to efficiently organize and store data. These tools enable the development of a robust backend system that supports the application and facilitates code maintenance and improvement over time.

4.1.5 Real-Time Communication & Updates :

In our application, we use technologies that enable real-time updates and direct communication between the user and the server. Thanks to Flutter on the frontend and PHP on the backend, data is sent and received at high speed, making the user feel that everything happens instantly without noticeable delay. This enhances the user experience by updating information immediately as it occurs, without the need to reload the page or wait.

4.2 Tools and services

-**Android Studio:** IDE for developing Android apps.



-**Visual Studio Code:** Lightweight code editor supporting multiple languages.



-**Postman:** API testing tool for sending requests and viewing responses.



-**GitHub:** Platform for code hosting, version control, and collaboration.



-**MySQL:** Relational database management system using structured tables.



-**XAMPP:** Local server environment bundling Apache, MySQL, PHP, and more for testing.



4.3 Implementation :

In this section, we'll dive into the details of each part of the system.

4.3.1 Mobile Application :

- **User Screens :**

Splash Screen: The Splash Screen introduces the SAFRLY brand identity and provides a professional welcome while the application initializes in the background



Figure 1 Splash Screen

Welcome Screen :It displays a simple interface offering the user three main options: browsing as a guest, creating a new account, or logging in. This allows for an easy and flexible start to the app experience.

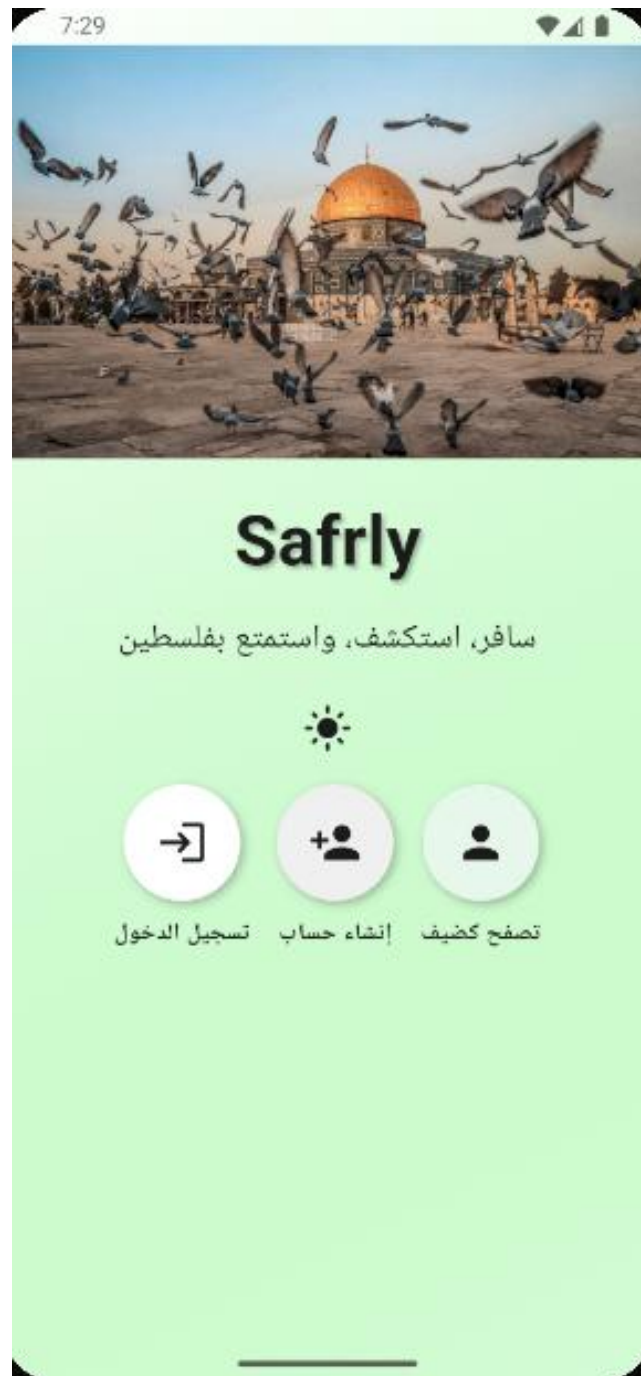


Figure 2 Welcome Screen

Sign Up screen :It displays a simple registration form that includes essential fields such as first name, last name, email, password, and password confirmation, along with an option to redirect existing users to the login screen. It is designed to be clear and user-friendly.

4:20

تجارب لا تنسى في قلب فلسطين

الاسم الأول

الاسم الثاني

البريد الإلكتروني

كلمة المرور

تأكيد كلمة المرور

إنشاء حساب

لديك حساب بالفعل؟ | تسجيل الدخول

Figure 3 Sign up Screen

Account Created Successfully:After successfully completing the sign-up process, a confirmation message is displayed to the user stating that "Account Created Successfully", after which they are automatically redirected to the login page to start using the app.

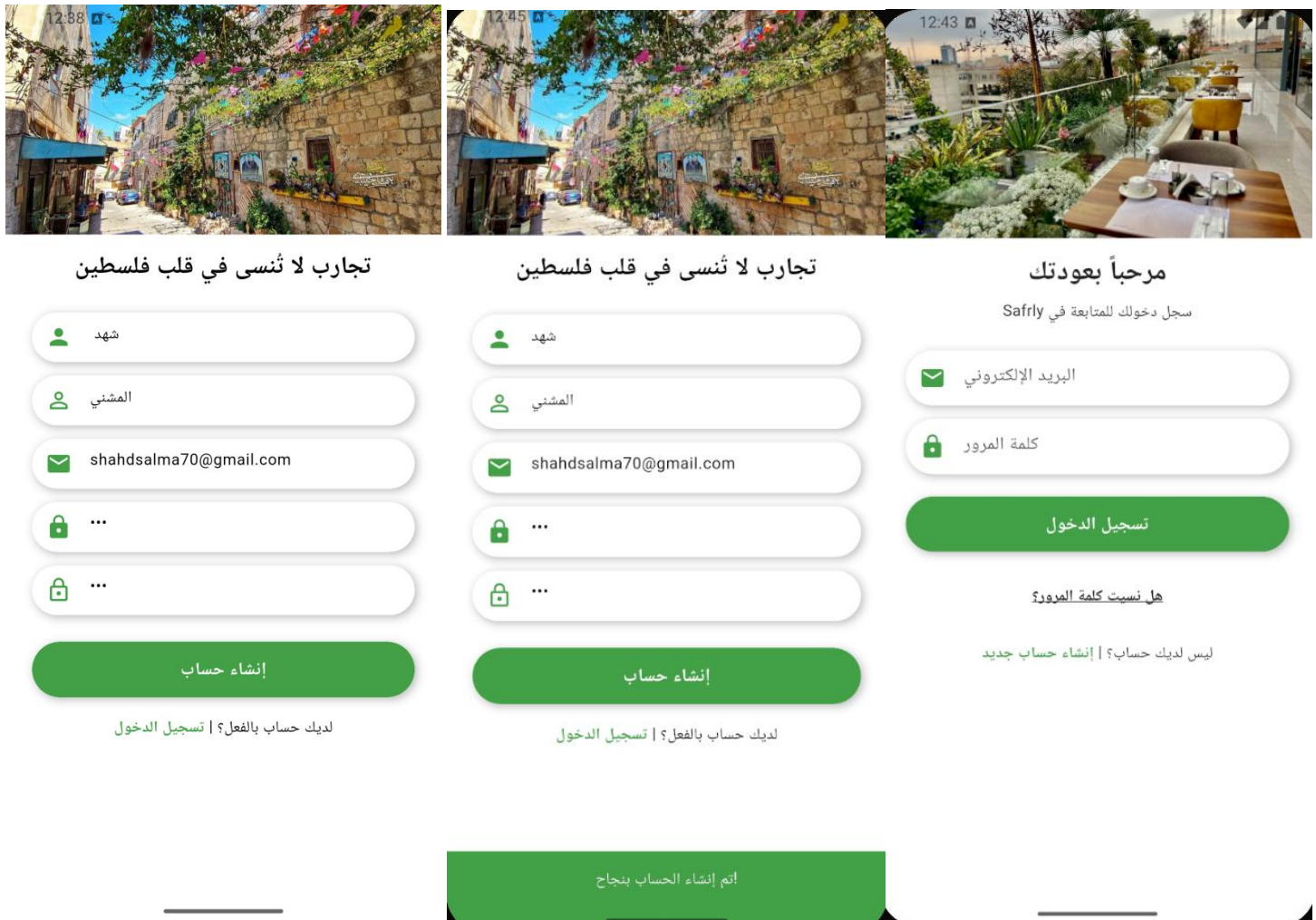


Figure 4 Account Created Successfully

Login Screen: The login screen allows users to access their Safrly account by entering their registered email and password. If the login is successful, the user is taken directly to the home screen, where tourist places in Palestine are displayed. If incorrect credentials are entered, an error message is shown. Users who have forgotten their password can select "Forgot your password?" to reset it via email, while those without an account can choose "Don't have an account? Create a new account" to register instead.

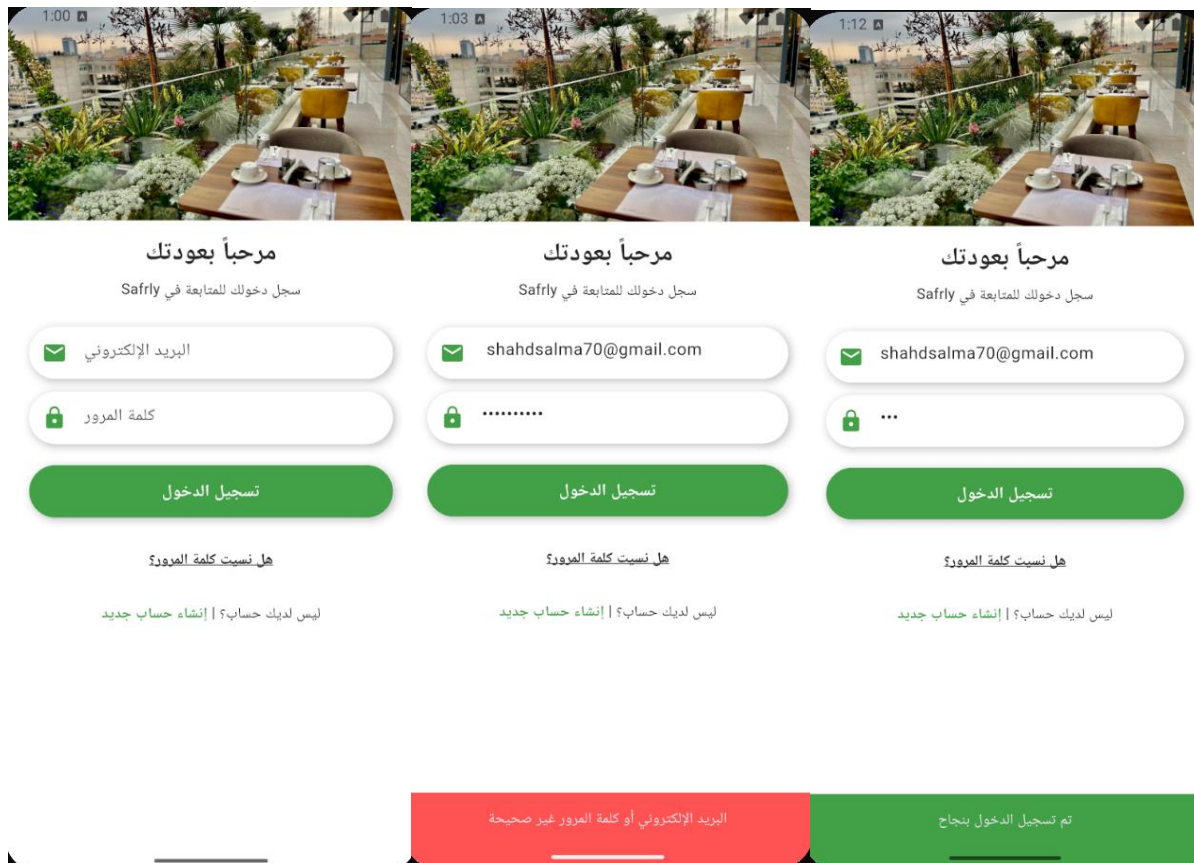


Figure 5 Login Screen

Forgot Password Screen : If users forget their password, they enter their registered email and tap "Send Code". They are then taken to the Reset Password screen, where they can enter the verification Code received by email and create a new password.

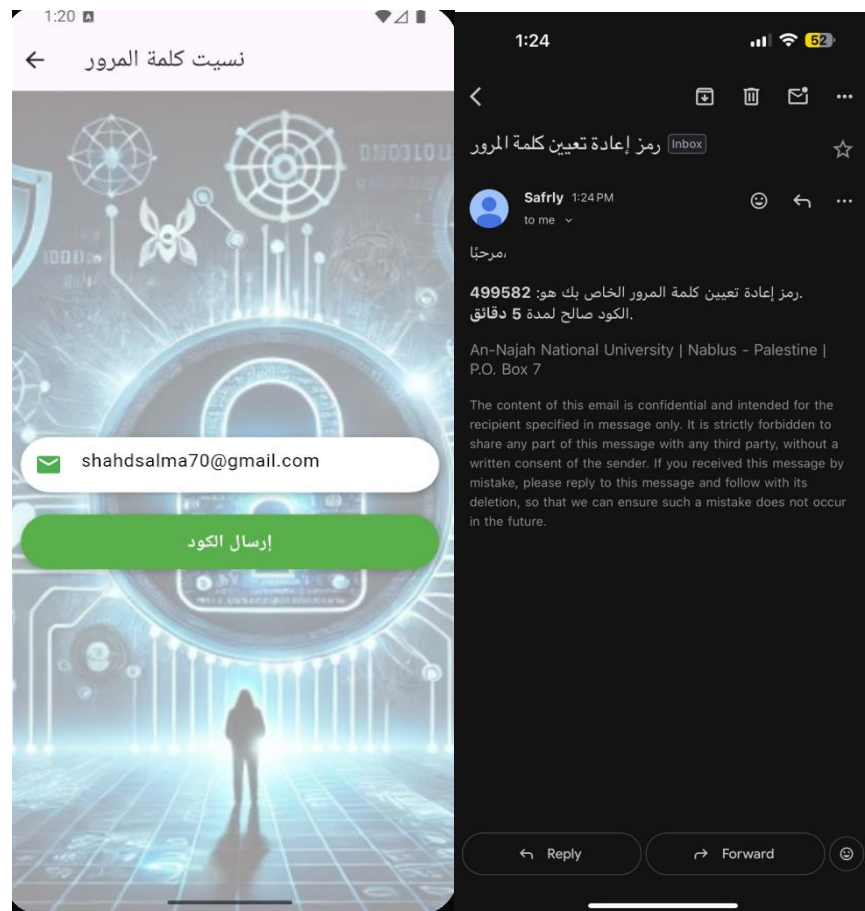


Figure 6 Forgot Password Screen

Reset Password Screen:

On this screen, the user enters the verification code received via their registered email, then inputs their new password. After clicking "Confirm", the password is successfully updated, and the user is automatically redirected to the login screen, where they can sign in using their new *password*

إعادة تعيين كلمة المرور

مرحباً بعودتك

سجل دخولك للمتابعة في Safri

أدخل البريد الإلكتروني، وكلمة المرور الجديدة، والبريد الإلكتروني

shahdsalma70@gmail.com

رمز التحقق

499582

كلمة المرور الجديدة

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هل نسيت كلمة المرور؟

ليس لديك حساب؟ | إنشاء حساب جديد

تم تسجيل الدخول بنجاح

تم تحديث كلمة المرور بنجاح

Figure 7 Reset Password Screen

Home Screen: This is the main entry screen of a tourism application for Palestine. The header includes a notification bell that allows users to access their in-app notifications. The screen also displays daily prayer times for major cities, along with a live countdown to the next prayer, as part of the informational content provided by the application. The core functionality enables users to select their travel interests from various categories such as mountains, coasts, historical sites, adventures, or cafés. By tapping “Show me suitable places,” the app uses artificial intelligence to generate personalized destination and activity recommendations based on user preferences. The bottom navigation bar provides direct access to essential travel services, including Hotels, Tour Guides, Transport, Permits, Offers, and the User Account. Additional utility features include an integrated chatbot for user assistance and a currency converter for financial convenience. In summary, this home screen serves as a centralized hub that combines information delivery, AI-powered trip planning, and quick access to manage all aspects of the travel experience.

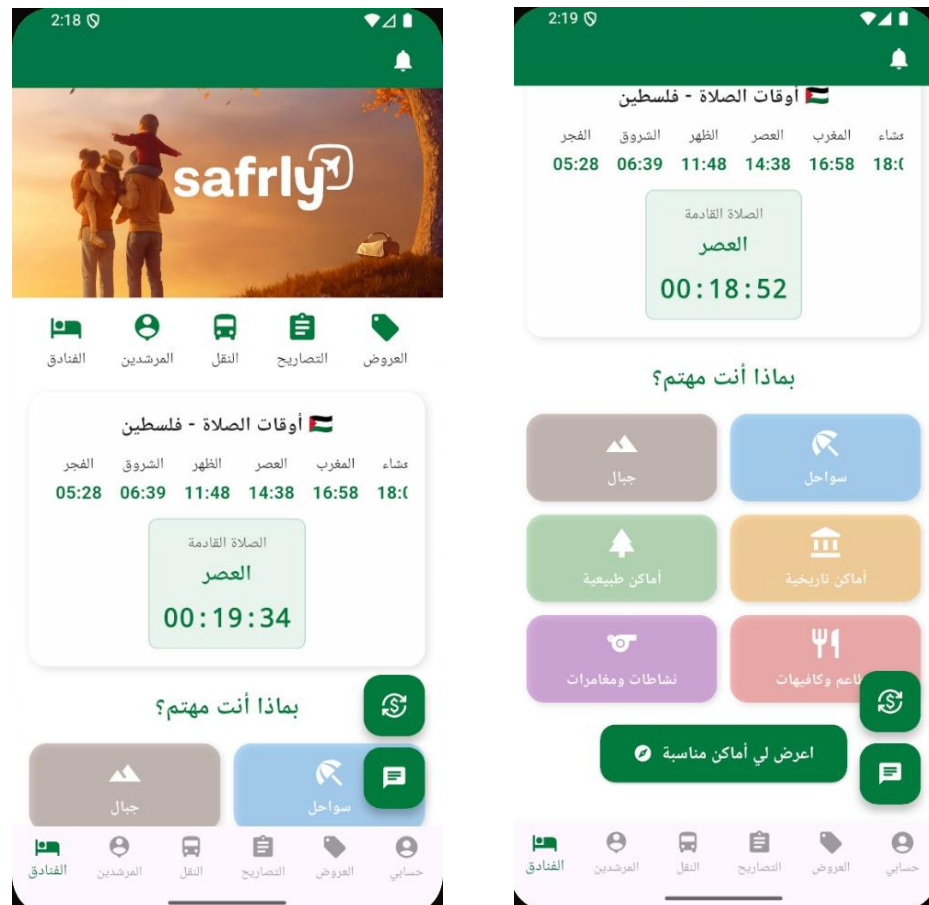


Figure 8 Home page

When a user selects their area of interest (e.g., mountains, coasts) and taps the "Show me suitable places" button the app displays a curated list of recommended destinations tailored to that interest. Each suggestion includes a brief description of the location and its key features. If the user wishes to inquire further about any recommended place—such as asking for more details, directions, or nearby services—they can easily engage with the chatbot by tapping the "Let's Start Chat" button located at the bottom of the recommendation page. This allows for instant, interactive assistance directly related to their chosen interests.

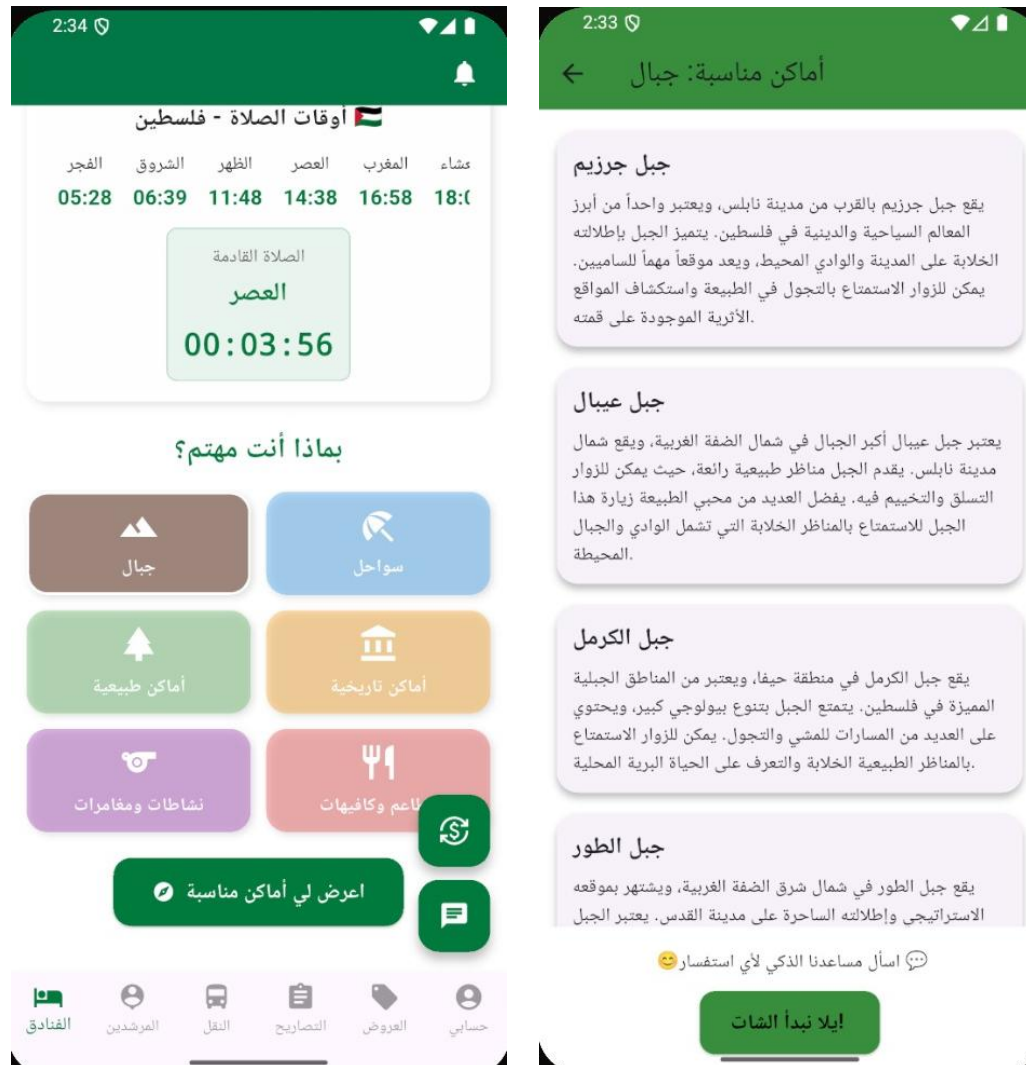


Figure 9 Home Page Details (What Are You Interested In?)

Chatbot Screen: This is the AI-powered chatbot interface of the application. It is designed to communicate with users in multiple languages, allowing tourists from around the world to interact naturally in their preferred language. Whether the user types in Arabic, English, or any other supported language, the chatbot responds in the same language to ensure clear and personalized assistance.

The chat supports rich interaction, including the ability to send emojis to make conversations more engaging and expressive. Users can ask questions about tourist attractions, cultural sites, transportation, accommodations, or any travel-related inquiries, and receive instant, context-aware responses powered by artificial intelligence.

This feature ensures that every traveler feels understood and supported, regardless of their language, making trip planning more accessible and interactive.

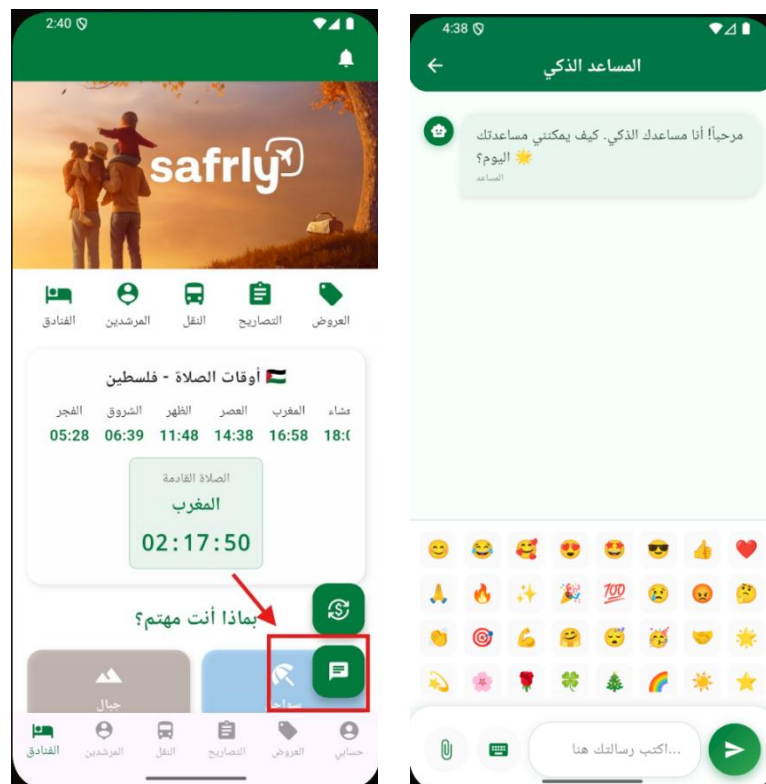


Figure 10 Chatbot Screen



Figure 11 Chatbot Screen

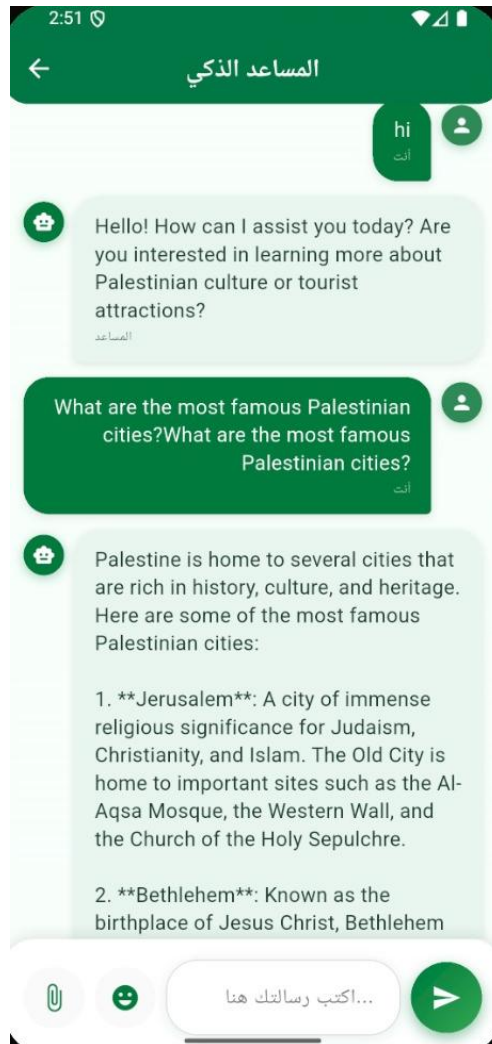


Figure 12 Chatbot Screen

Currency Converter Screen: This screen features a smart currency converter designed for travelers in Palestine, allowing easy conversion between currencies like USD, ILS, EUR, and JOD based on accurate, real-time exchange rates. This tool helps tourists manage expenses and make informed financial decisions during their trip with a simple and user-friendly interface.

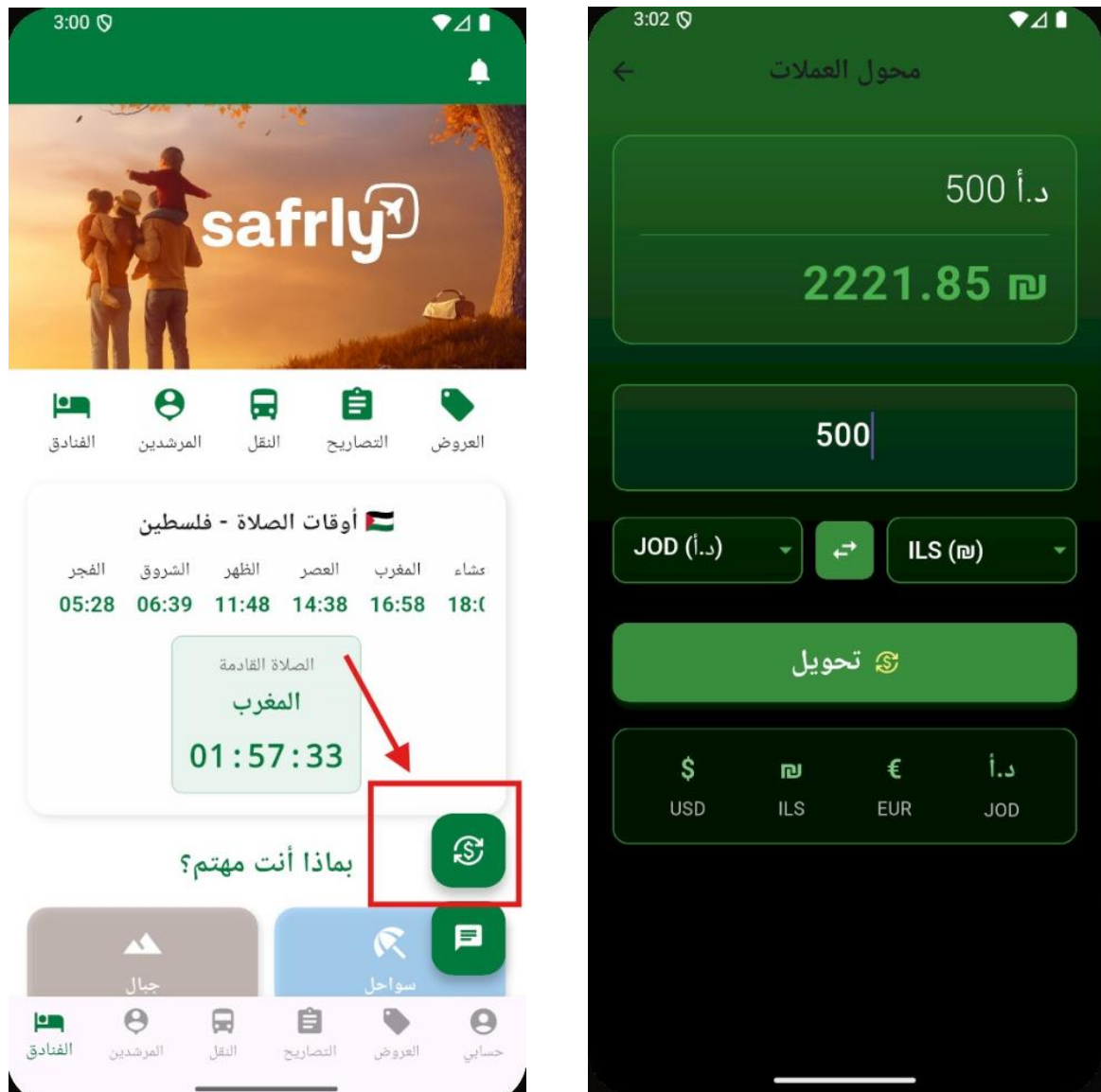


Figure 13 Currency Converter Screen

Hotel Screen: This screen is dedicated to browsing and booking hotels across Palestine. It allows users to view a detailed list of hotels showing nightly prices and star ratings. It features a smart search tool that enables filtering by city (such as Ramallah, Nablus) and star rating (from 5 stars downward), helping travelers easily find accommodations that match their budget and preferences. When the user taps on a hotel, they are taken to the hotel details page to complete the booking.

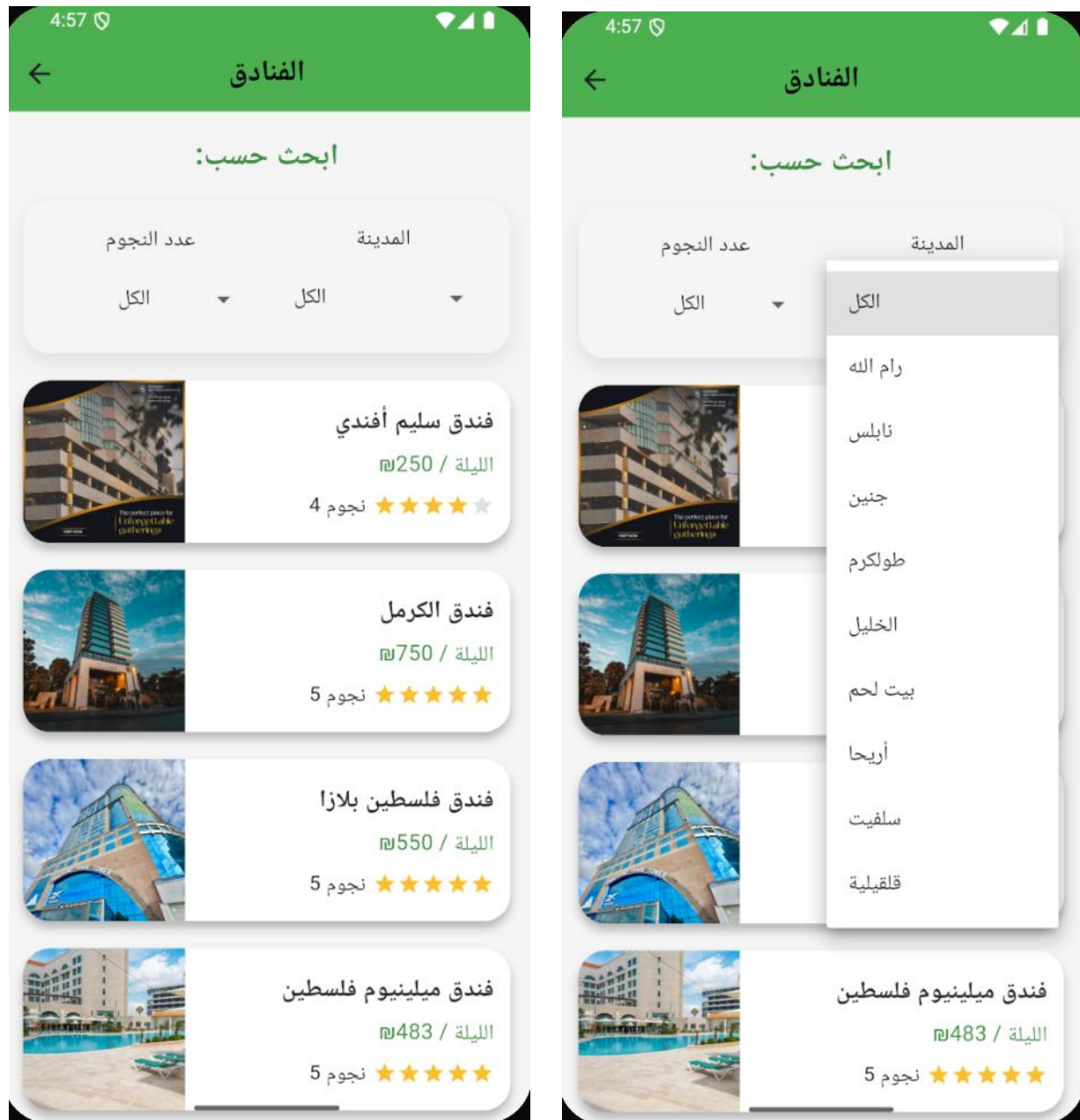


Figure 14 Hotel Screen

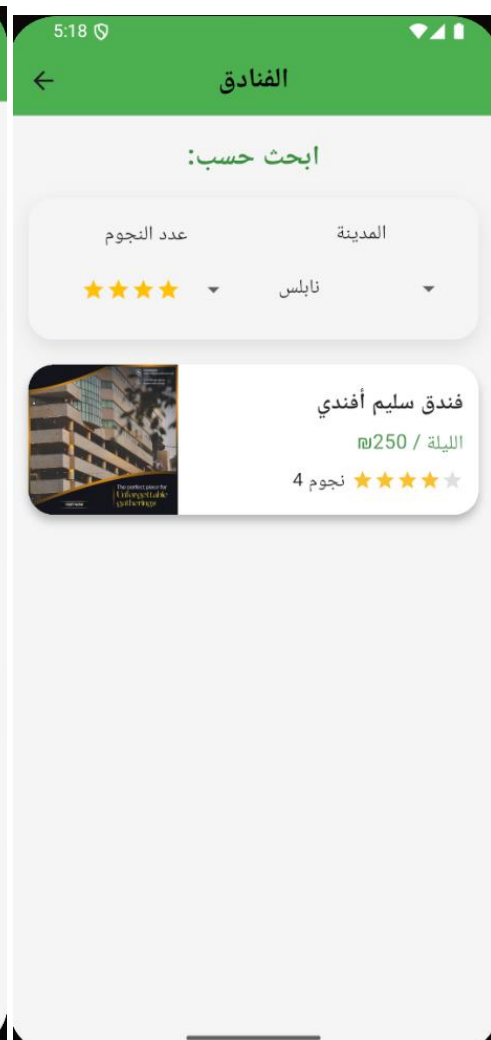
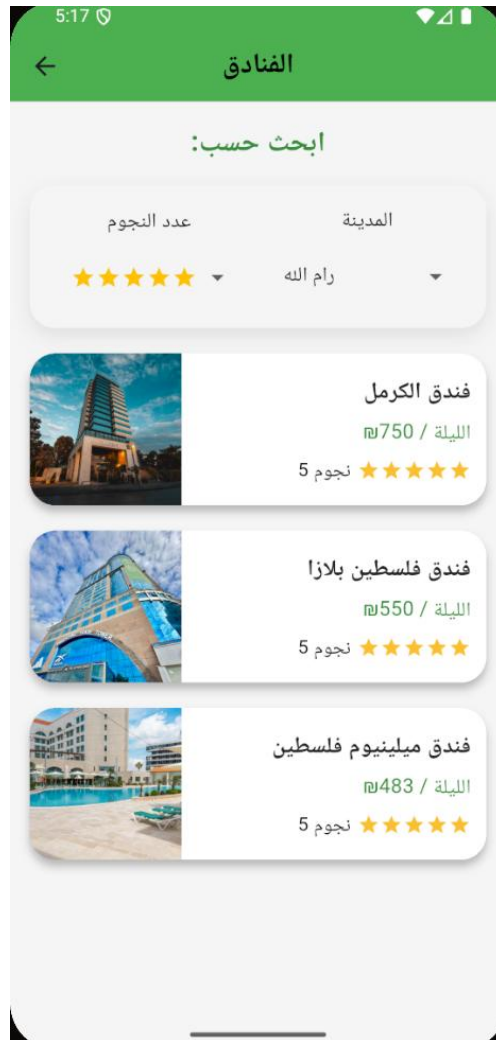
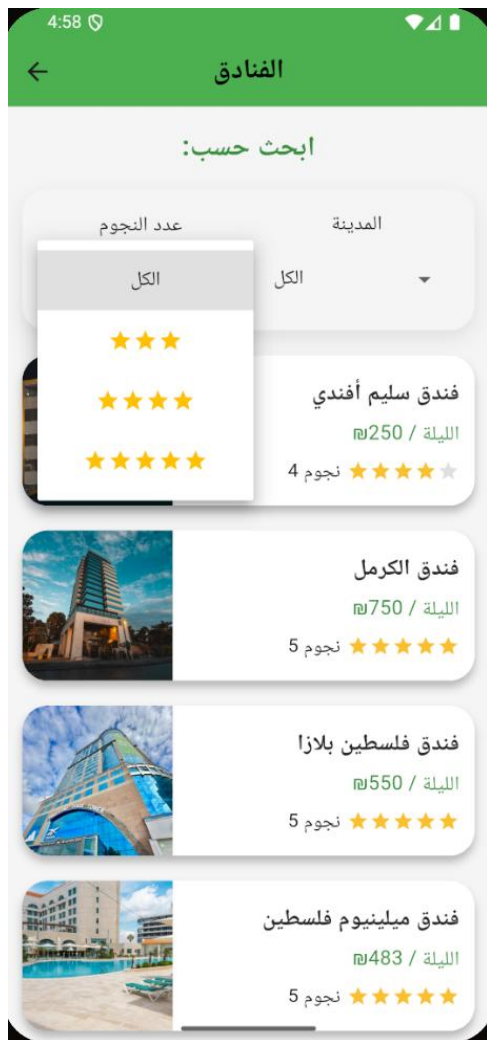


Figure 15 Hotel screens

Hotel Details Screen: This screen displays comprehensive and detailed information about each hotel. It begins with an automatic slideshow showcasing various sections of the hotel, followed by the overall rating and the price per night, indicating that taxes and services are included. The screen lists all available services and amenities and allows users to fully interact with the hotel through dedicated sections for reviews and ratings where users can share their experiences and read feedback from other travelers. It also includes a rating system for submitting personal evaluations of the hotel and a direct booking button that facilitates the reservation process. Additionally, the screen features a section about the city, making it a complete interface for making informed decisions and planning the stay.

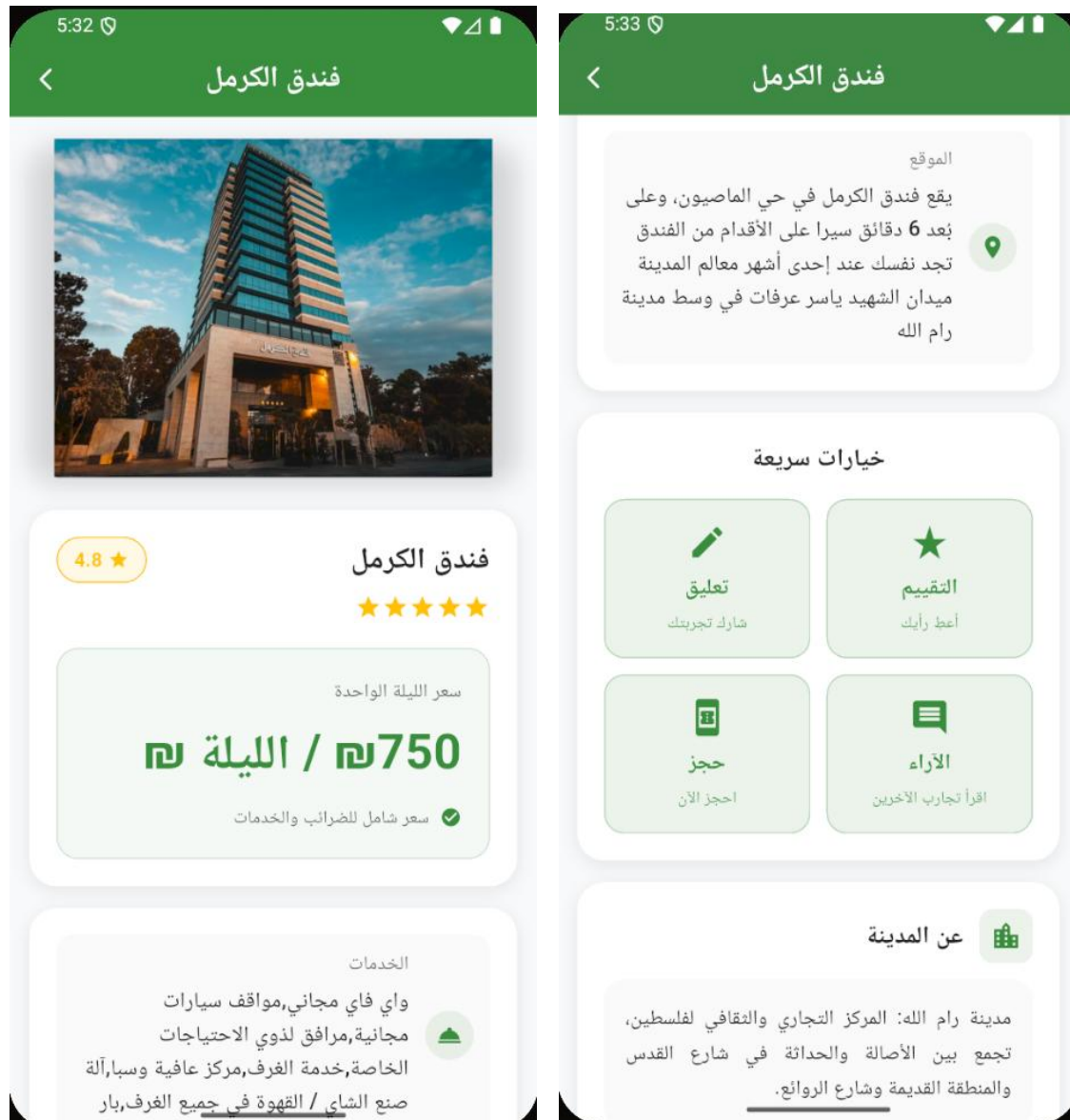
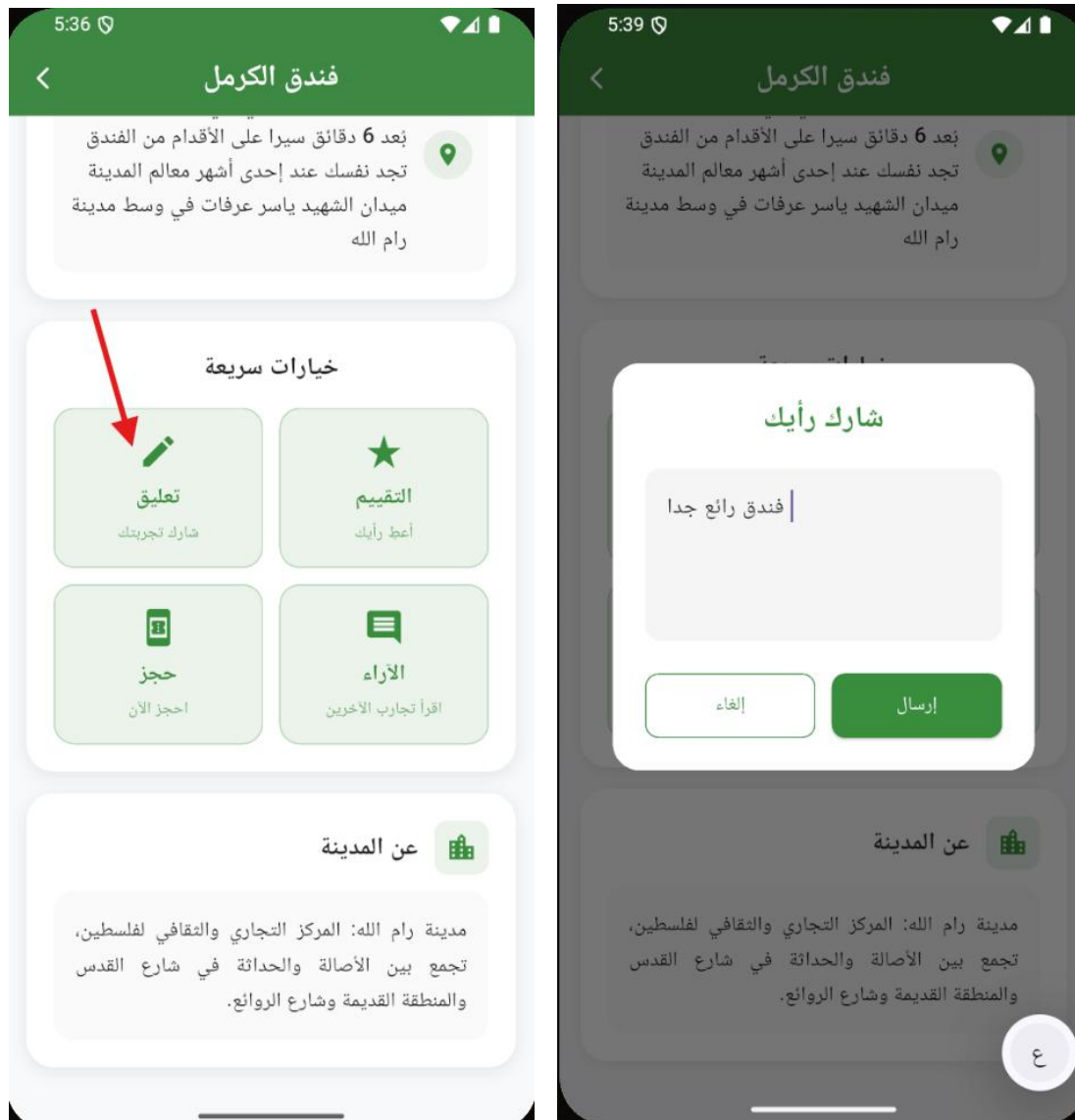


Figure 16 Hotel Details Screen



تم إرسال تعليقك بنجاح

Figure 17 Hotel Details Screen

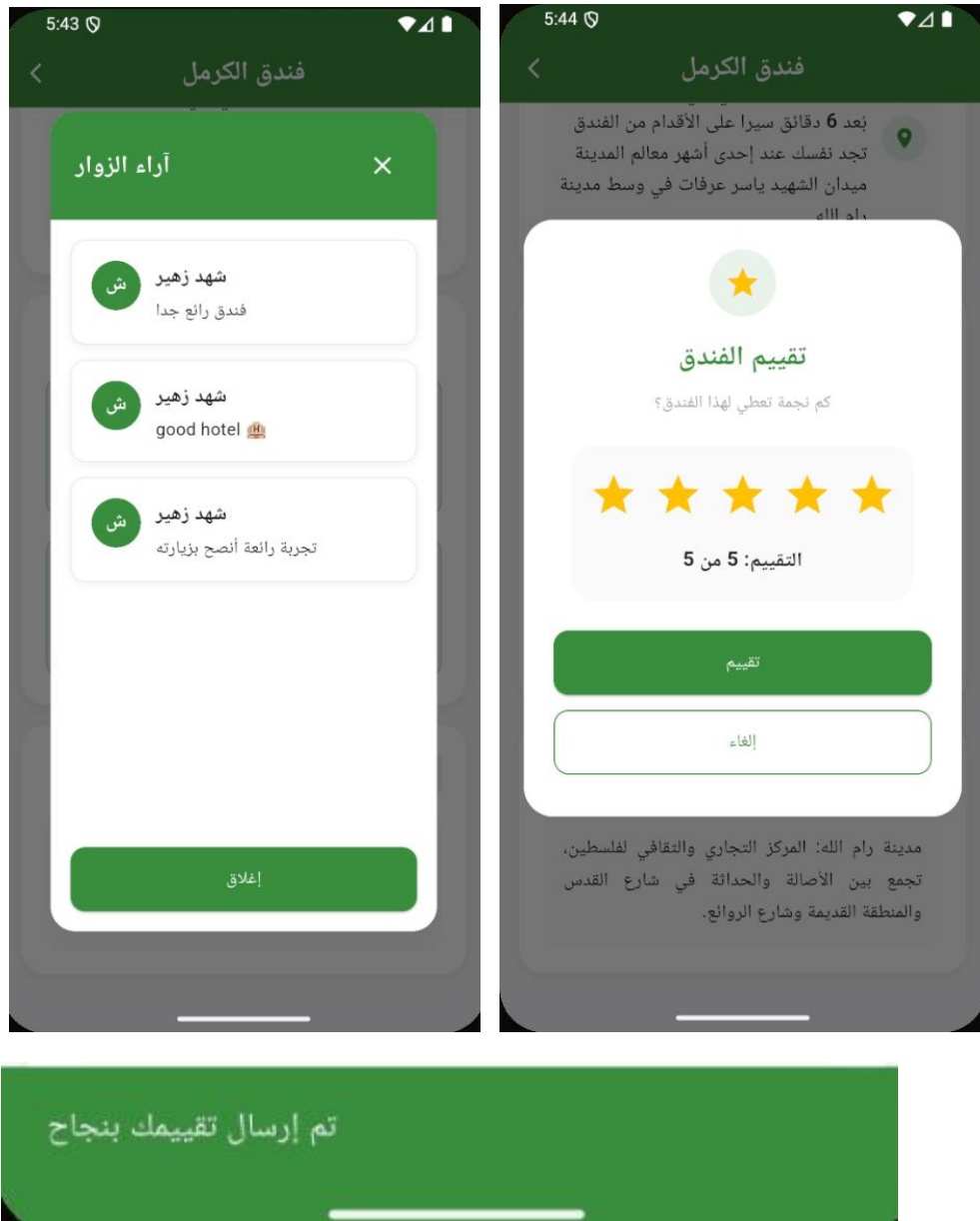


Figure 18 Hotel Details Screen

Hotel Booking Screen : This page is dedicated to completing the hotel booking. It displays booking details including the hotel name, location, price per night, and rating. The total price is automatically calculated based on the number of nights selected by the user. The user enters their personal information such as their full name and phone number, then chooses their preferred payment method from several available options, such as cash payment upon arrival, via Jawwal Pay, PayPal, or by credit/debit card. After confirmation and payment, a booking confirmation is sent to the user.

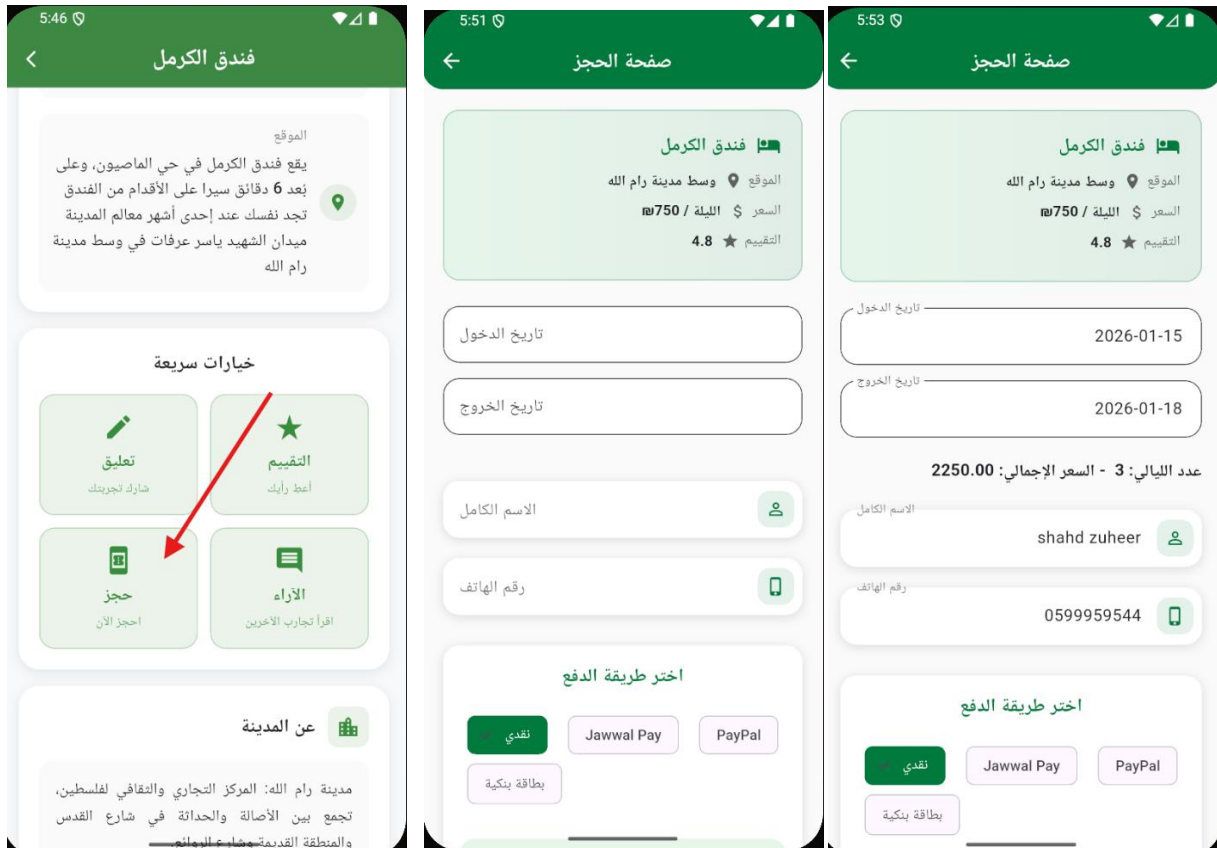


Figure 19 Hotel Booking Screen

5:54

← صفحة الحجز

عدد الليالي: 3 - السعر الإجمالي: 2250.00

الاسم الكامل
shahd zuheer

رقم الهاتف
0599959544

اختر طريقة الدفع

نقدي Jawwal Pay PayPal

بطاقة بنكية

معلومات البطاقة

رقم البطاقة

MM/... CVV

تأكيد الحجز

5:55

← صفحة الحجز

تاريخ الدخول
2026-01-15

تاريخ الخروج
2026-01-18

عدد الليالي: 3 - السعر الإجمالي: 2250.00

الاسم الكامل
shahd zuheer

رقم الهاتف
0599959544

تم الحجز ✓

تم استلام بيانات الحجز وحساب السعر بنجاح

حسناً

نقدي Jawwal Pay PayPal

بطاقة بنكية

سيتم استلام المبلغ عند الوصول

تأكيد الحجز

Figure 20 Hotel Booking Screen

Guides screen : The Tour Guides screen allows users to explore and search for certified tour guides across Palestine. It includes a search bar that enables searching by name or email, along with filtering options based on the languages spoken by the guide, such as Arabic and English, helping travelers find a guide that matches their preferred language. The page displays a list of available guides, each showing their hourly rate, spoken languages, contact information, and a brief bio outlining their expertise and the areas they cover. Additionally, the screen provides interactive features including a "Book Now" button for directly booking a tour with the selected guide and a "Rate Your Experience" section where users can submit ratings and feedback after completing a tour, contributing to a trusted community of recommendations. This page serves as a central hub for organizing guided tourism experiences with knowledgeable professionals.

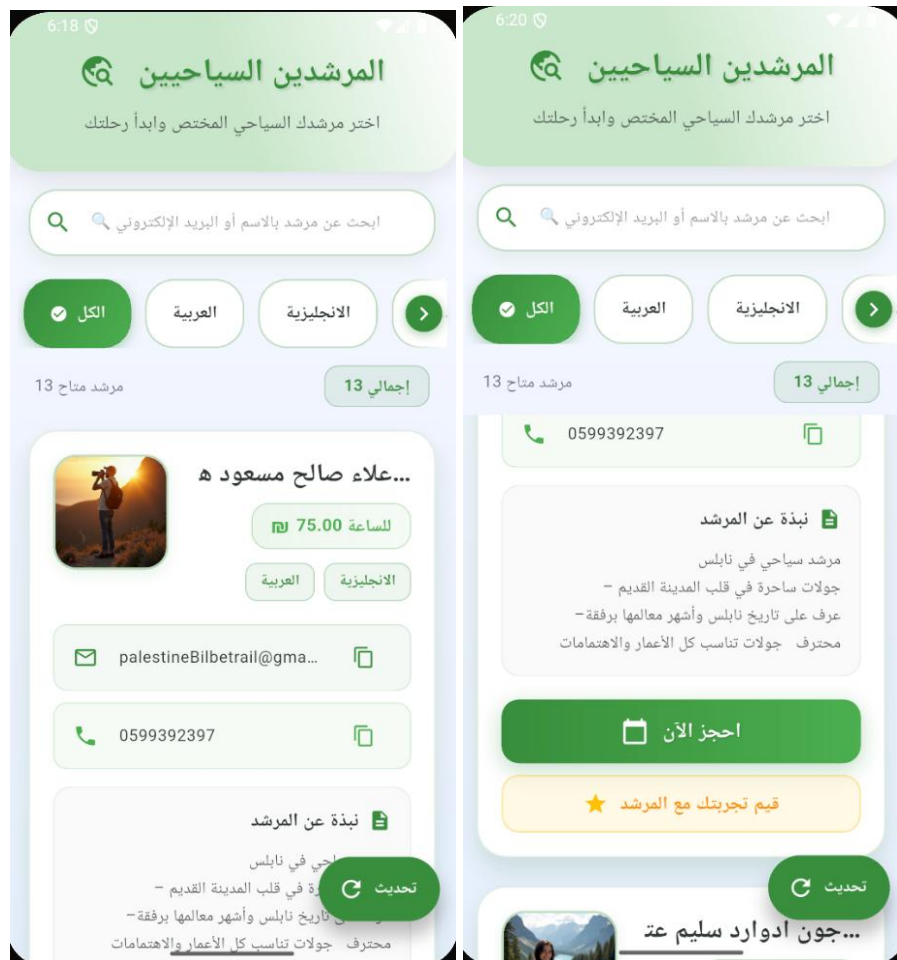
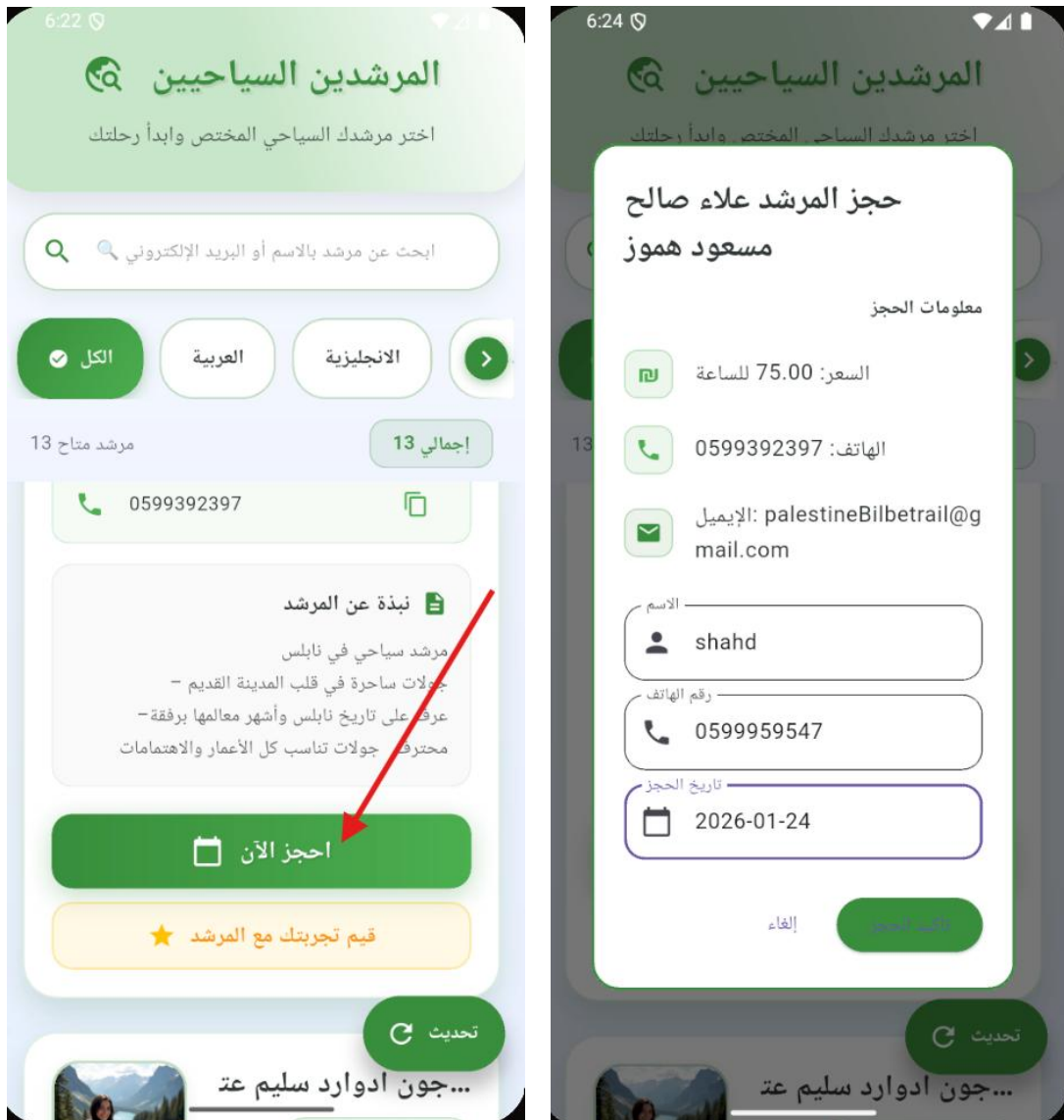


Figure 21 Guides screen



تم إرسال طلب الحجز إلى علاء صالح مسعود هموز بنجاح ✓

Figure 22 Guides Booking Screen



Figure 23Guide Rating Page

Transportation screen: The Transportation screen is dedicated to coordinating and planning tourist transportation within Palestine. It allows the user to easily specify a starting point and a final destination.

Upon tapping the "Get Route" button, the system calculates the shortest and most efficient route based on the current road network using Dijkstra's Algorithm. The page also provides suggestions for available drivers and services based on the optimized route, allowing the user to select and book a specific driver directly through the app. Additionally, the screen features a comprehensive 5-star rating system where users can rate their overall transportation experience after completing the trip. This combination of smart planning and flexible choice ensures a comfortable and reliable journey for the traveler.

Detailed Explanation of Dijkstra's Algorithm

Dijkstra's Algorithm is used to find the shortest path between two points in a network (or graph) where edges (connections between points) have weights representing distance, time, or any other cost.

Objective:

The goal is to find the shortest path from a specific starting point to all other points in the network, typically focusing on reaching a specific endpoint with the least cost.

How the Algorithm Works:

1-Data Representation:

The network is represented as a graph consisting of:

Nodes: Points or locations (e.g., cities or intersections).

Edges: Roads or links between nodes, each with a weight (such as the distance between two points).

2-Initialization:

The distance to the starting node is set to zero (0).

All other nodes are assigned an initial distance of infinity (∞), meaning their distance is unknown at the start.

3-Visiting Nodes:

The algorithm begins at the starting node, marking it as the "current node."

It examines all neighboring nodes directly connected to the current node and calculates tentative distances through the current node.

If this tentative distance is less than the previously recorded distance for that neighbor, the distance is updated.

4-Selecting the Next Node:

Once all neighbors are checked and distances updated, the current node is marked as "visited" (its shortest distance is finalized).

The next node chosen as the current node is the unvisited node with the smallest tentative distance.

5-Iteration:

These steps repeat until all nodes are visited or until the target node's shortest path is found if searching for a specific endpoint.

6-Path Reconstruction:

After completion, the shortest path to each node can be reconstructed by tracing back through the nodes from the endpoint to the start, using recorded previous nodes during the updates.

Advantages of the Algorithm:

Guarantees finding the shortest path in networks with non-negative edge weights.

Widely used in navigation systems, route planning, communication networks, and more.

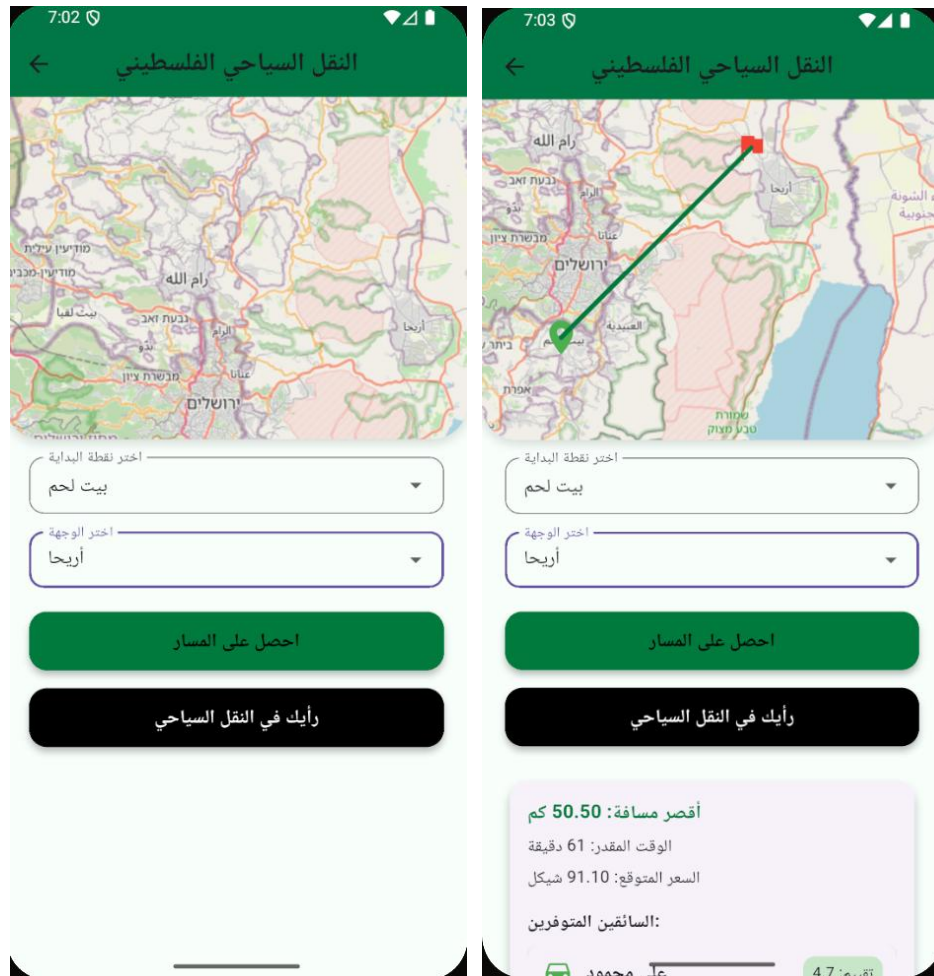


Figure 24 Transportation screen

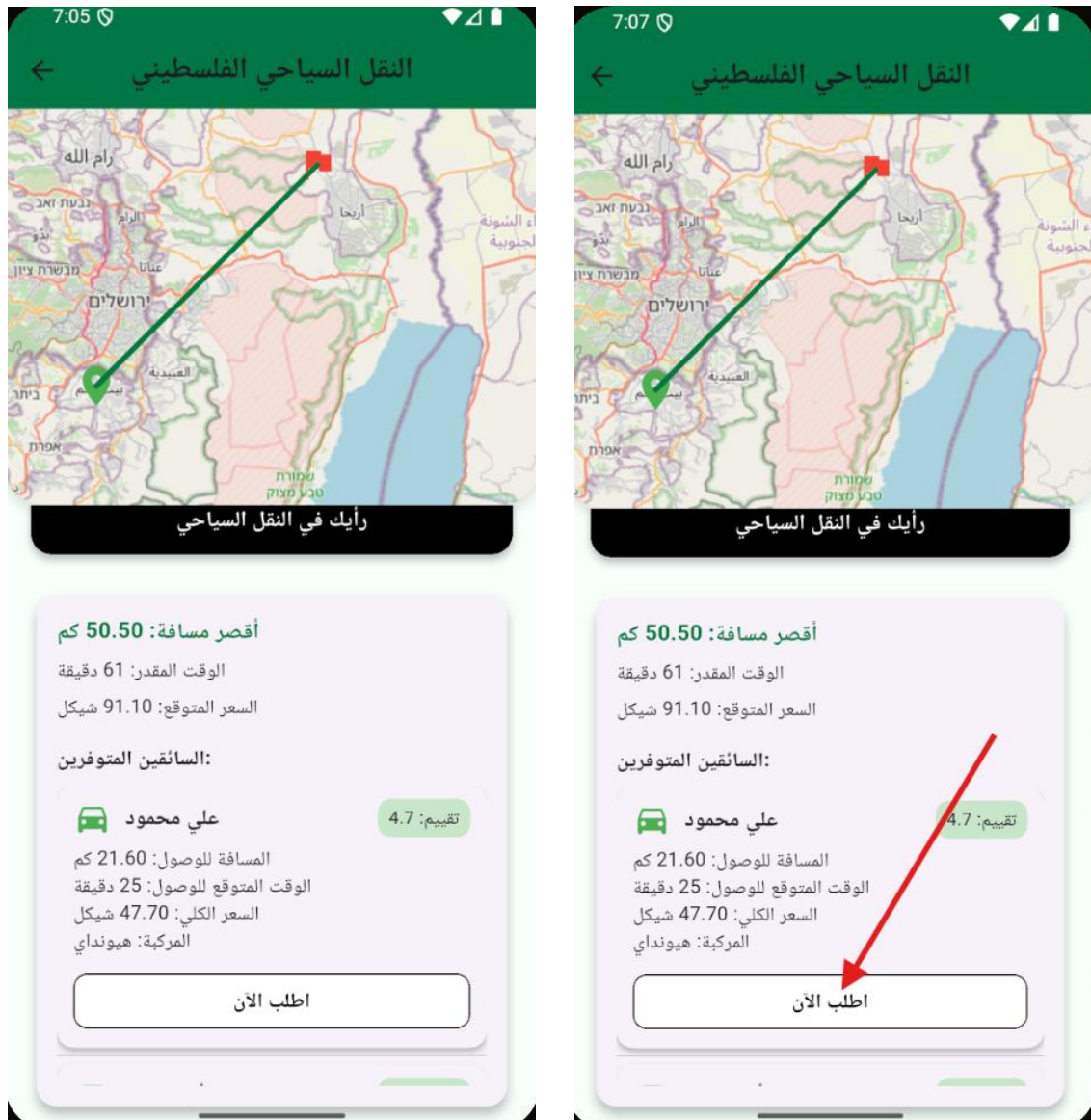


Figure 25 Driver Request Page

7:08

← نموذج طلب النقل

السائق: علي محمود

عدد الركاب
1

ملاحظات (اختياري)

اسم الراكب

رقم الهاتف

الموقع

☒ نقدي
☐ بطاقة
☐ PayPal

إرسال الطلب

7:12

← نموذج طلب النقل

السائق: علي محمود

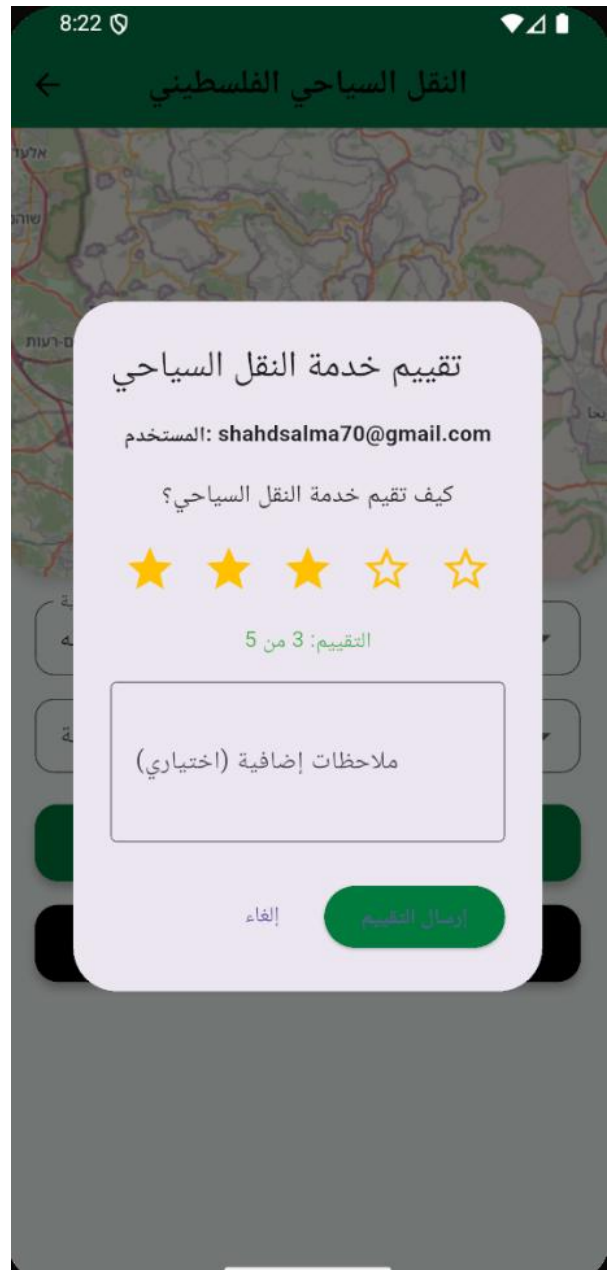
عدد الركاب
2

ملاحظات (اختياري)

اسم الراكب
shahdرقم الهاتف
0599959547الموقع
zeta
☒ نقدي
☐ بطاقة
☐ PayPal

إرسال الطلب

Figure 26 Driver Request Page



تم إرسال تقييمك بنجاح

Figure 27 Transport Management Rating

Permits Screen: This page serves as a secure digital gateway for requesting official permits to enter the occupied Palestinian areas. It allows users to complete a comprehensive application through three sections: Personal Information (such as name, date of birth, and ID number), Contact Details, and Permit Specifics (type, duration, place of visit). It also requires electronic uploads of supporting documents including ID, personal photo, and the Magnetic Card as mandatory requirements, with optional additions like a passport. The page concludes with a legal declaration signed by the user to confirm the accuracy and confidentiality of the provided information before the request is submitted for processing by authorized Palestinian officials.

The image displays two side-by-side screenshots of a mobile application interface for requesting permits. Both screens have a green header with the title 'تقديم طلب تصريح رسمي' (Submit Official Permit Request) and a back arrow.

Left Screenshot:

- Header:** 7:25, signal, and battery icons.
- Coat of Arms:** The official emblem of the State of Palestine is centered.
- المعلومات الشخصية (Personal Information):**
 - الاسم الكامل (Full Name): Text input field.
 - تاريخ الميلاد (Date of Birth): Three dropdown menus for 'السنة' (Year), 'الشهر' (Month), and 'اليوم' (Day).
 - رقم الهوية (ID Number): Text input field.

Right Screenshot:

- Header:** 7:25, signal, and battery icons.
- معلومات الاتصال (Contact Information):**
 - رقم الهاتف (Phone Number): Text input field.
 - البريد الإلكتروني (Email): Text input field.
 - العنوان الحالي (Current Address): Text input field.
- تفاصيل التصريح (Permit Details):**
 - نوع التصريح (Permit Type): Dropdown menu.
 - مدة التصريح المطلوبة (Required Permit Duration): Dropdown menu.
 - مكان الزيارة أو الوصول (Visit or Arrival Location): Dropdown menu.
- رفع المستندات المطلوبة (Upload Required Documents):**
 - صورة الهوية (ID Photo): Section header.
 - اختر الملف (Select File): Green button with a file icon.
 - صورة شخصية (Personal Photo): Section header.

Figure 28 Permits Screen

7:26
تقديم طلب تصريح رسمي

رفع المستندات المطلوبة

صورة الهوية

اختر الملف

صورة شخصية

اختر الملف

بطاقة ممغنطة

اختر الملف

جواز السفر (اختياري)

اختر الملف

إثبات الغرض من التصريح (اختياري)

اختر الملف

أقر أنا مقدم الطلب بأن جميع البيانات والمستندات المرفقة صحيحة ودقيقة، وأتحمل كامل المسؤولية القانونية عن أي معلومات غير صحيحة.

الاسم للتأكيد

16/4/2026 تاريخ التقديم

إرسال الطلب

7:27
تقديم طلب تصريح رسمي

صورة شخصية

اختر الملف

بطاقة ممغنطة

اختر الملف

جواز السفر (اختياري)

اختر الملف

إثبات الغرض من التصريح (اختياري)

اختر الملف

أقر أنا مقدم الطلب بأن جميع البيانات والمستندات المرفقة صحيحة ودقيقة، وأتحمل كامل المسؤولية القانونية عن أي معلومات غير صحيحة.

الاسم للتأكيد

16/1/2026 تاريخ التقديم

إرسال الطلب

7:32
تقديم طلب تصريح رسمي

Screenshot_20260115-102734.png
جواز السفر (اختياري)

اختر الملف

Screenshot_20260115-102351.png
إثبات الغرض من التصريح (اختياري)

اختر الملف

Screenshot_20260115-102734.png

أقر أنا مقدم الطلب بأن جميع البيانات والمستندات المرفقة صحيحة ودقيقة، وأتحمل كامل المسؤولية القانونية عن أي معلومات غير صحيحة.

الاسم للتأكيد

shahd zuheer almashney
16/1/2026 تاريخ التقديم

إرسال الطلب

تم إرسال الطلب بنجاح

Figure 29 Permits Screen

7:35

← تقديم طلب تصريح رسمي

اختر الملف

✓

Screenshot_20260115-102351.png

إثبات الغرض من التصريح (اختياري)

اختر الملف

✓

Screenshot_20260115-102734.png

أقر أنا مقدم الطلب بأن جميع البيانات والمستندات المرفقة صحيحة ودقيقة، وأتحمل كامل المسؤولية القانونية عن أي معلومات غير صحيحة.

✓

الاسم للتأكيد

shahd zuheer almashney

تاريخ التقديم: 16/1/2026

إرسال الطلب

تم استلام طلبك

الطلب قيد المراجعة من الجهات المختصة، وسيتم التواصل معك عند صدور القرار الرسمي.

Figure 30 Permits Screen

Offers Screen: This page displays exclusive offers that bundle integrated services to provide a comprehensive tourist experience. Each package presents a customized combination that includes a stay at a specific hotel along with tours led by a designated tour guide, all offered at discounted prices. The offers are presented clearly, showing both the original price and the discounted price, allowing users to easily compare and choose. This page is an ideal opportunity for travelers seeking organized and cost-effective trips without the need to arrange each service separately.

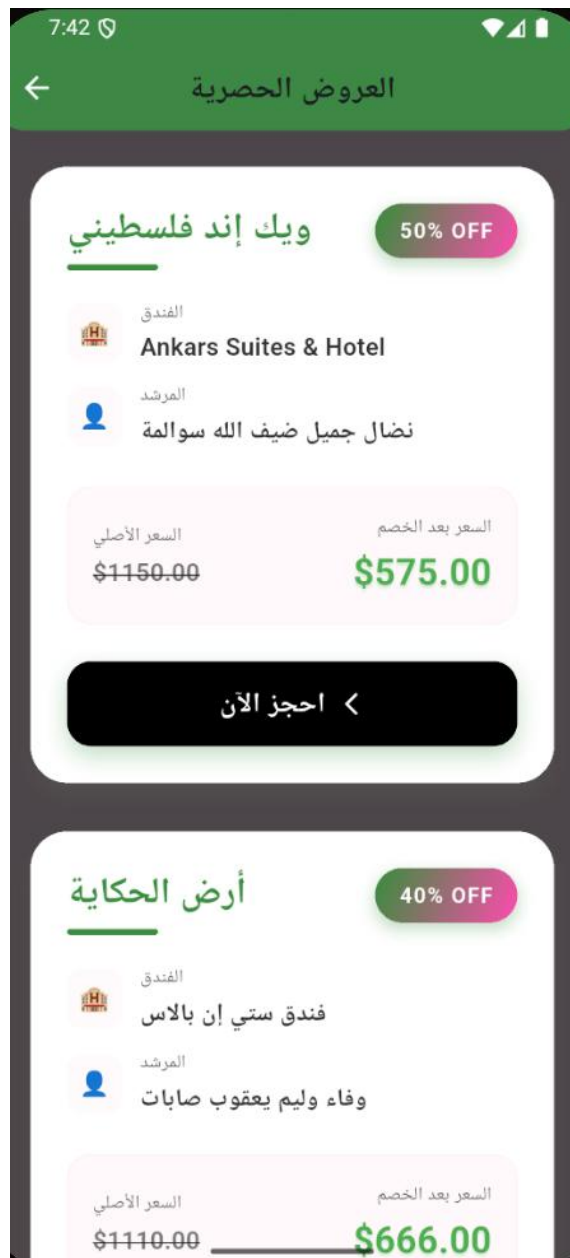


Figure 31 Offers Screen

Offer Booking Screen: This screen represents the final step for booking one of the exclusive tourist offers. The top of the screen displays the offer name and its reference number to confirm the selected choice. This page ensures a smooth and clear booking process for bundled offers while providing all the necessary information to meet the user's needs.

The image displays two screenshots of a mobile application's 'Offer Booking Screen' in Arabic. Both screens have a green header with a back arrow and the title 'حجز العرض' (Book Offer).

Left Screenshot (7:47 AM):

- Offer Details:** A light purple box contains the offer name 'ويك إند فلسطيني' (Weekend Palestinian) and the offer reference number 'رقم العرض: 11'.
- Booking Details Section:** Titled 'تفاصيل الحجز' (Booking Details), it contains several input fields:
 - الاسم الكامل** (Full Name): 'أدخل اسمك الكامل' (Enter your full name).
 - رقم الهاتف** (Phone Number): 'أدخل رقم هاتفك' (Enter your phone number).
 - عدد الأشخاص** (Number of People): 'أدخل عدد الأشخاص' (Enter the number of people).
 - تاريخ الحجز** (Booking Date): 'اختر تاريخ الحجز' (Select booking date).
 - طريقة الدفع** (Payment Method): A dropdown menu.

Right Screenshot (7:48 AM):

- Form Fields:** The same input fields as the left screenshot are visible, but the 'Full Name' field is currently empty.
- Confirmation:** A large green button with a checkmark icon and the text 'تأكيد الحجز' (Confirm Booking) is prominently displayed.
- Notice:** Below the button, a light green box contains the text 'سيتم تأكيد حجزك خلال 24 ساعة' (Your booking will be confirmed within 24 hours).

Figure 32 Offer Booking Screen

7:50

← حجز العرض

رقم الهاتف

0599959547

عدد الأشخاص

3

تاريخ الحجز

2026/01/24

طريقة الدفع

نقداً

تفاصيل الدفع

الدفع نقداً عند الاستلام
ستقوم بالدفع عند استلام الخدمة

ملاحظات إضافية (اختياري)

أي ملاحظات أو طلبات خاصة

تأكيد الحجز ✓

✓ تم حفظ الحجز بنجاح

Figure 33 Offer Booking Screen

My Account Screen: This screen displays the user's profile with access to their settings and personal preferences. The top shows the name, email, and preferred payment method. The settings section allows changing the app interface between dark and light modes, selecting the preferred currency, viewing system information, and securely logging out. The page offers a personalized and secure experience focused on user comfort and financial flexibility.

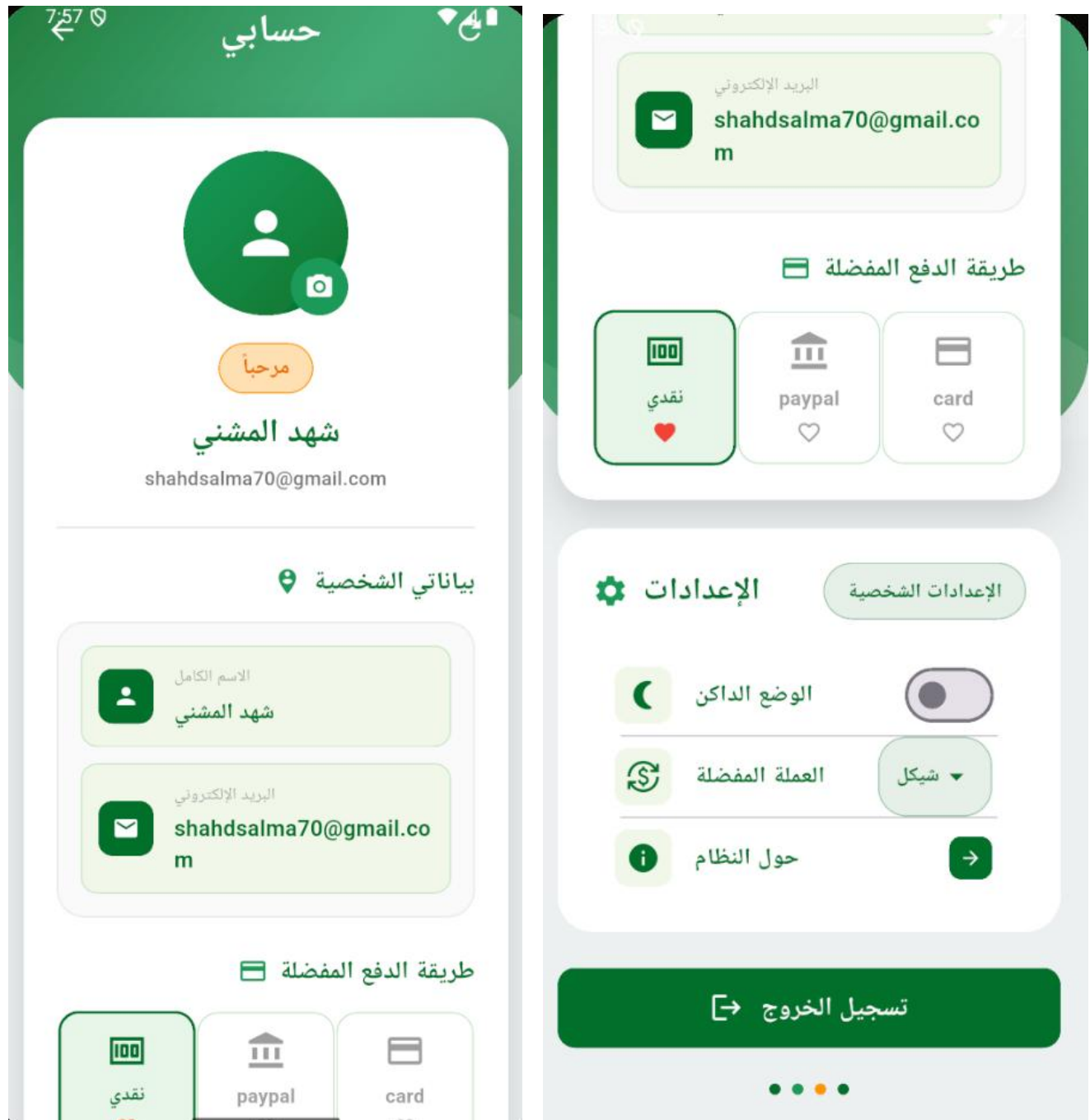


Figure 34 My Account Screen

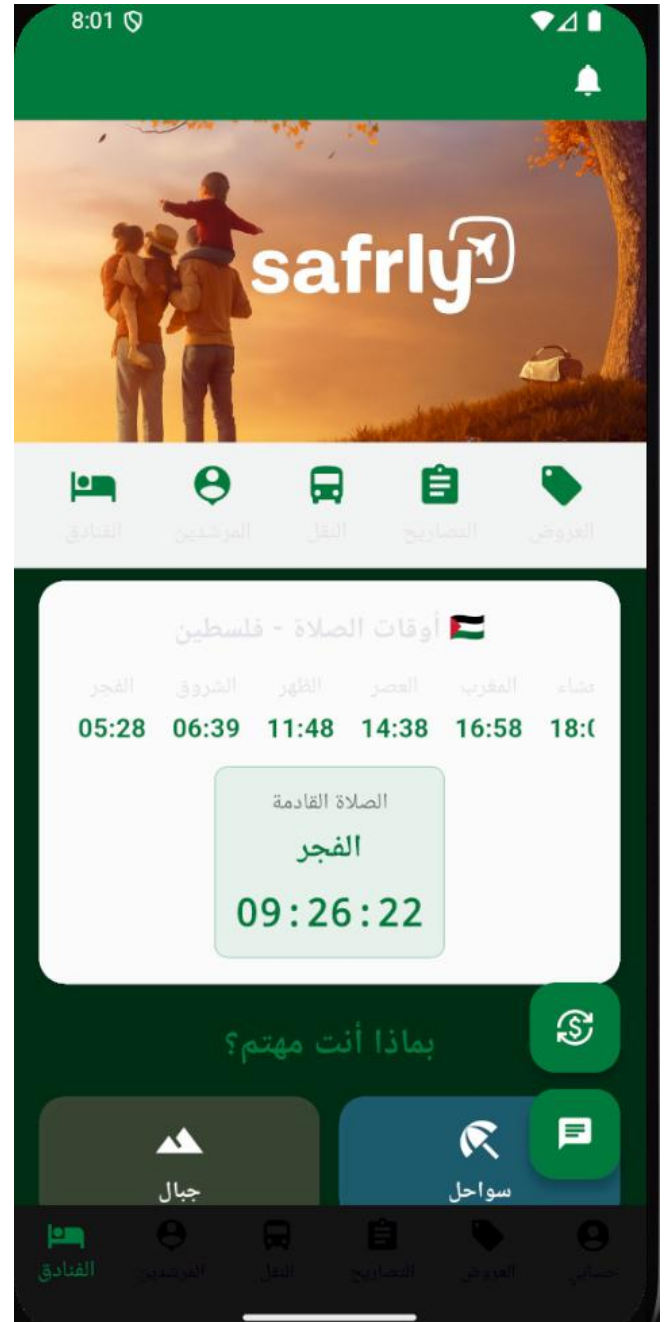
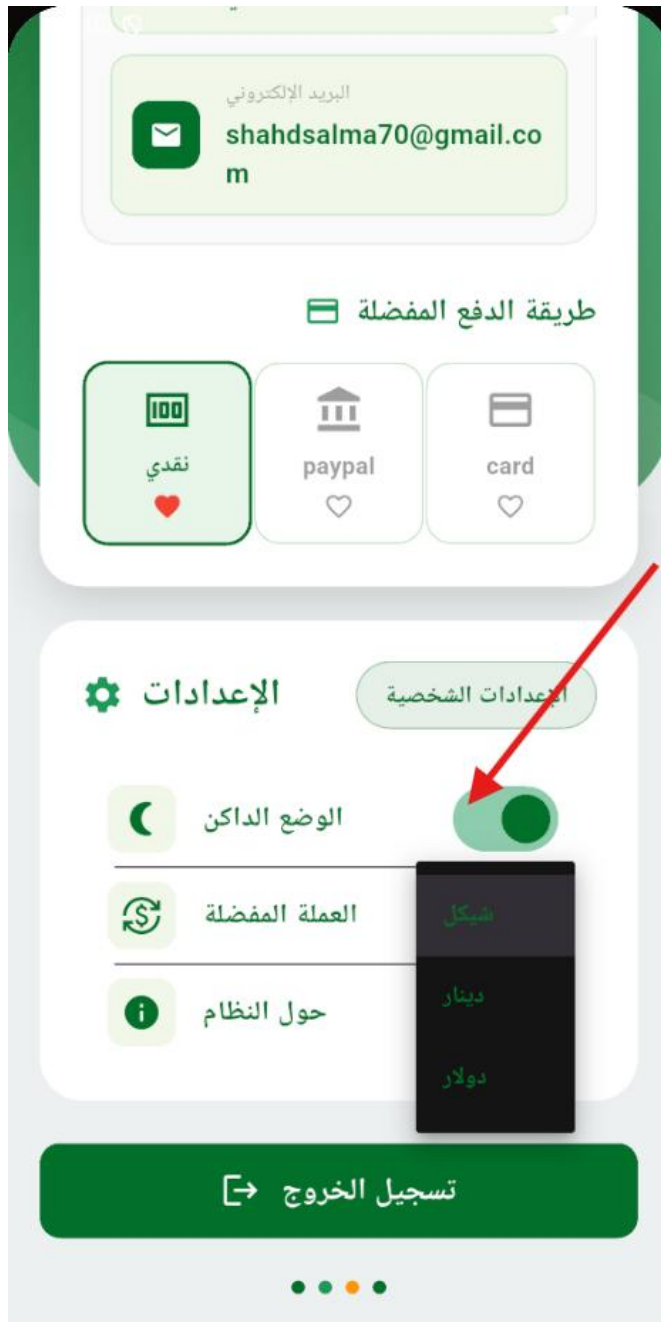


Figure 35 My Account Screen

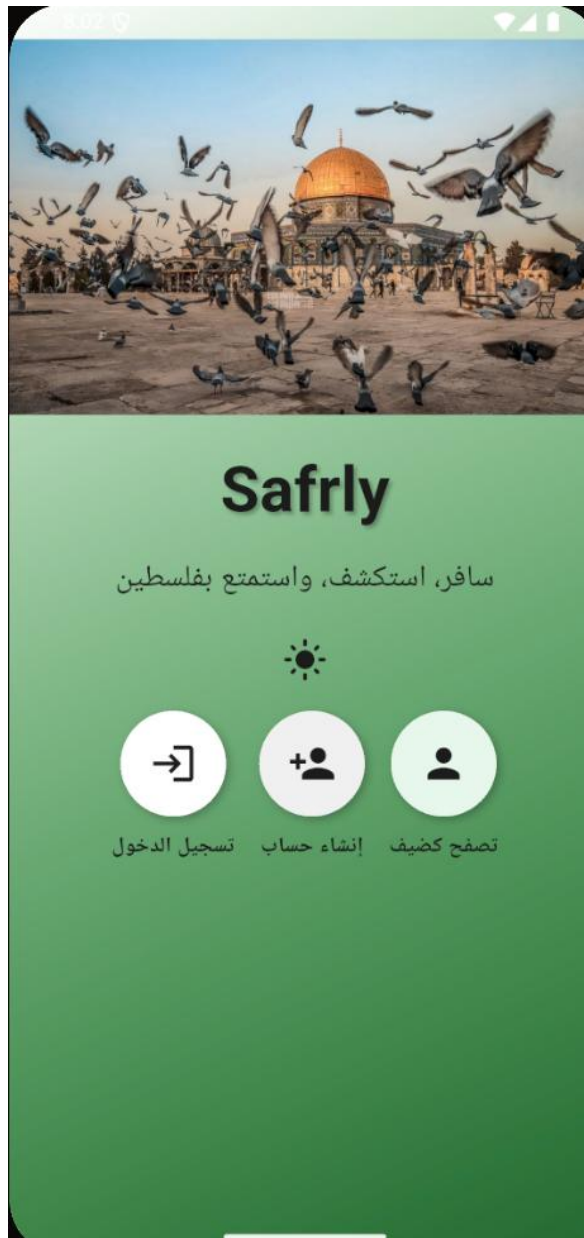


Figure 36 Home Screen (Dark Mode)

Clicking on "Log Out" will log the user out of their account and take them to the welcome page.

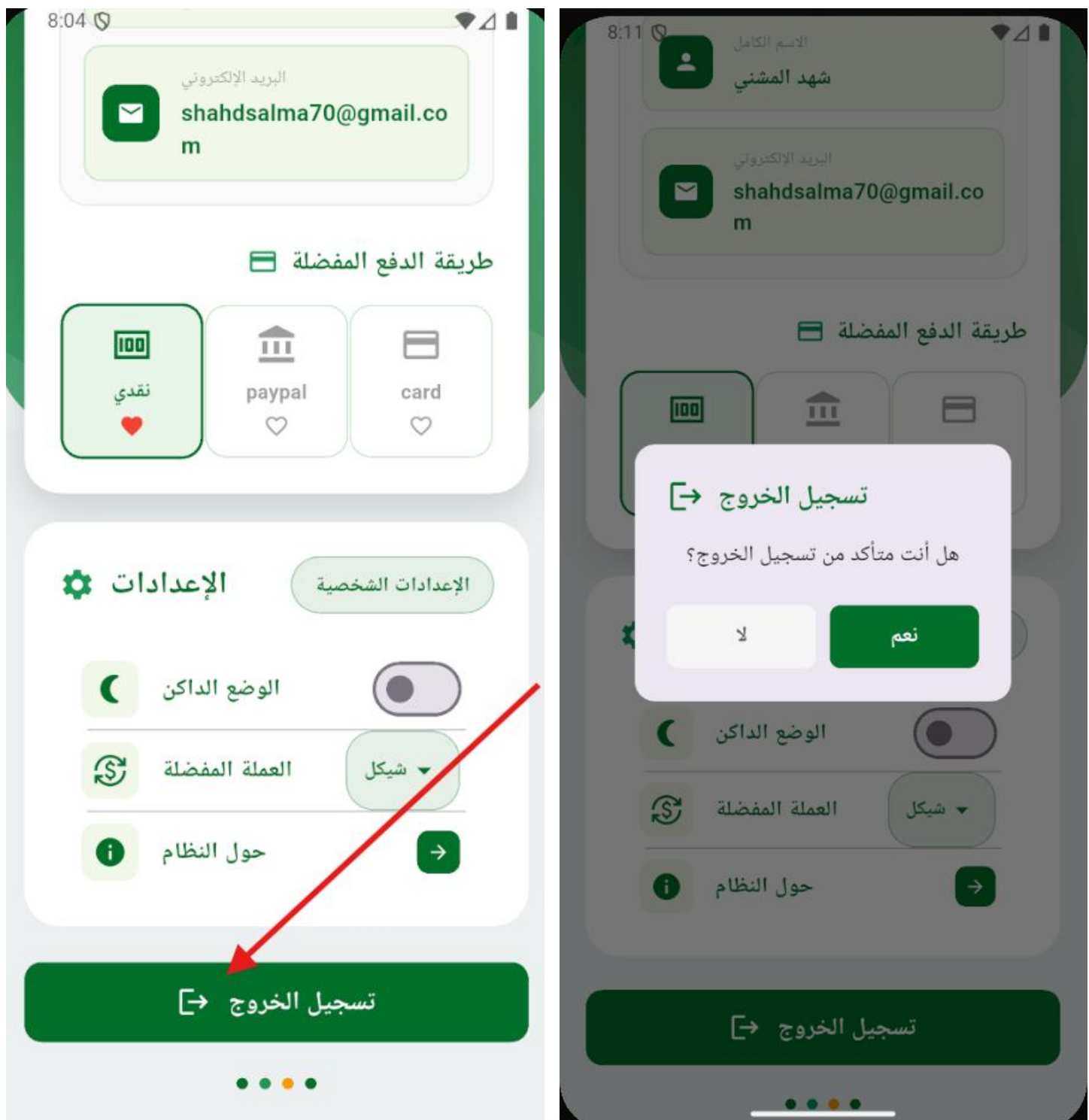
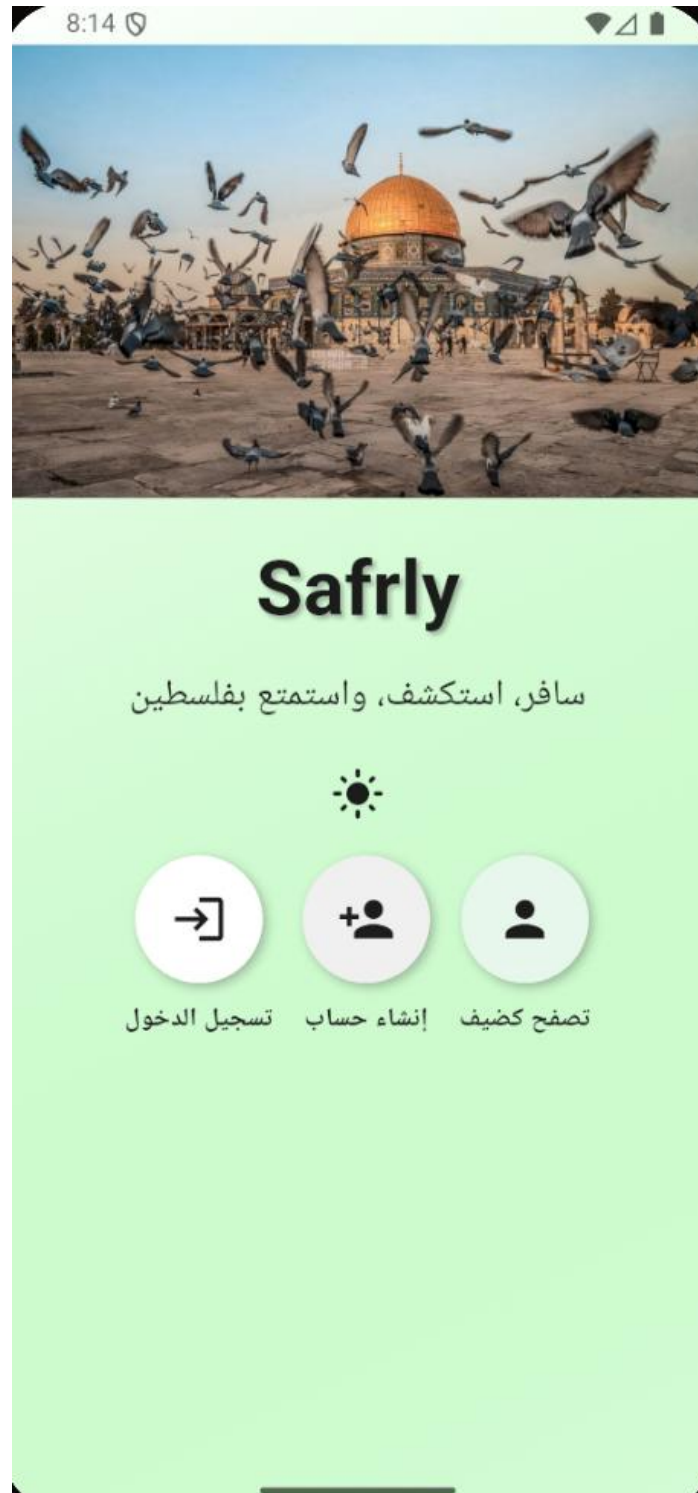


Figure 37 My Account Screen(Log Out)

Return to the welcome page



- **Driver page:**

The driver can log into the application through the login page using their personal email and password, which they receive from the general administrator (admin). The admin grants the driver the necessary permissions to access their personal account within the app. Through their personal page, the driver can manage their offers and incoming requests, where they can easily accept or reject these requests. This allows the driver to efficiently monitor and organize their work from the same login area.

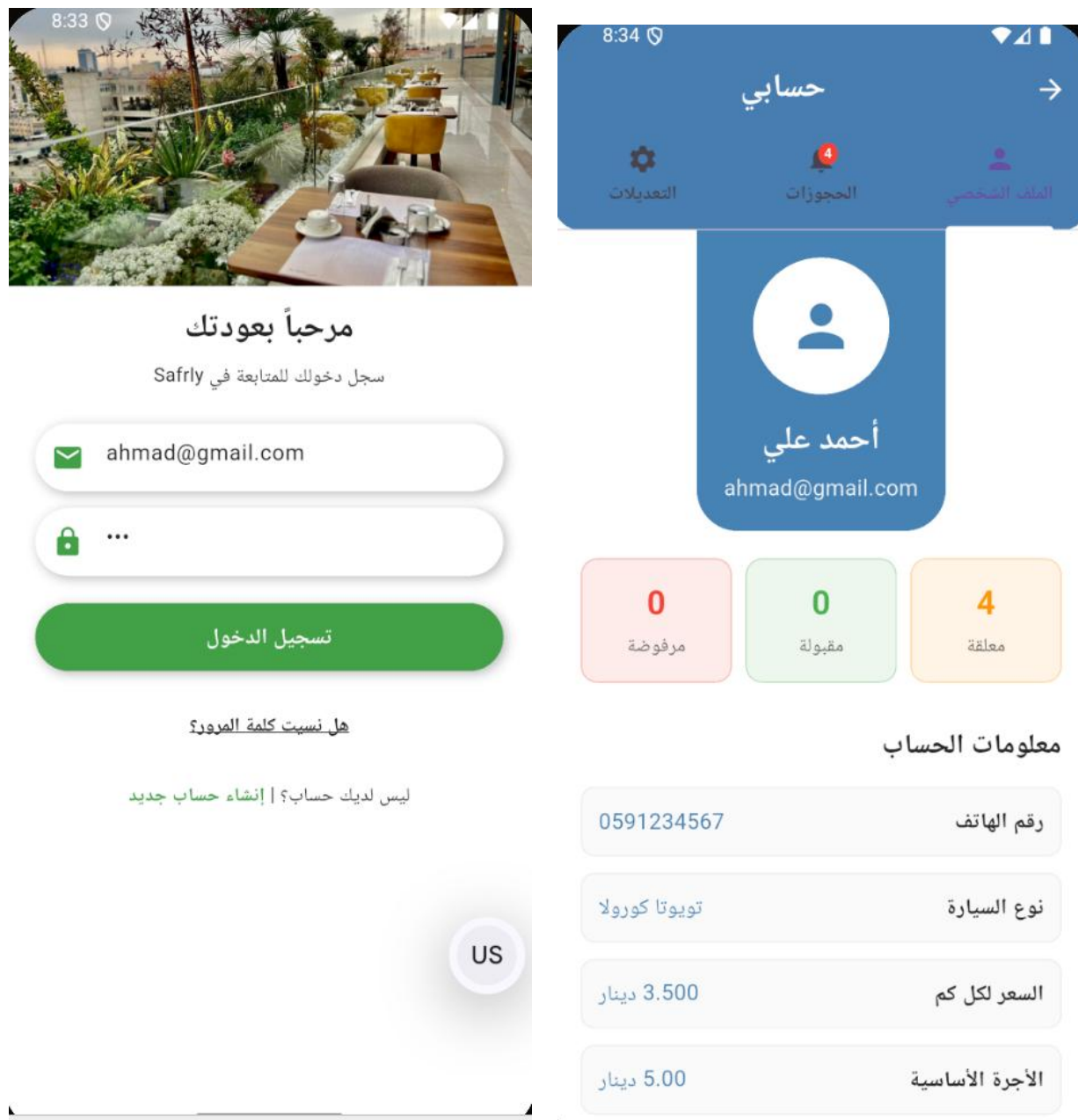


Figure 38 Driver page

The driver can easily update any of their personal information at any time through the Settings section in the app.

8:36 8:38

حسابي

التعديلات الحجوزات الملف الشخصي

تعديل البيانات

الاسم الكامل

أحمد علي

رقم الهاتف

0591234567

نوع السيارة

تويوتا كورولا

الاجرة الأساسية

السعر لكل كم

5.00 3.500

4.00 3.500

حفظ التعديلات

حفظ التعديلات

US

تم حفظ التعديلات بنجاح

Figure 39 Driver Profile Edit Page

Through the bookings section in the app, the driver can accept or reject user bookings. Whenever the driver takes either action, an automatic notification is sent to the user to inform them of the booking status, whether accepted or rejected.



Figure 40 Booking Management by Driver

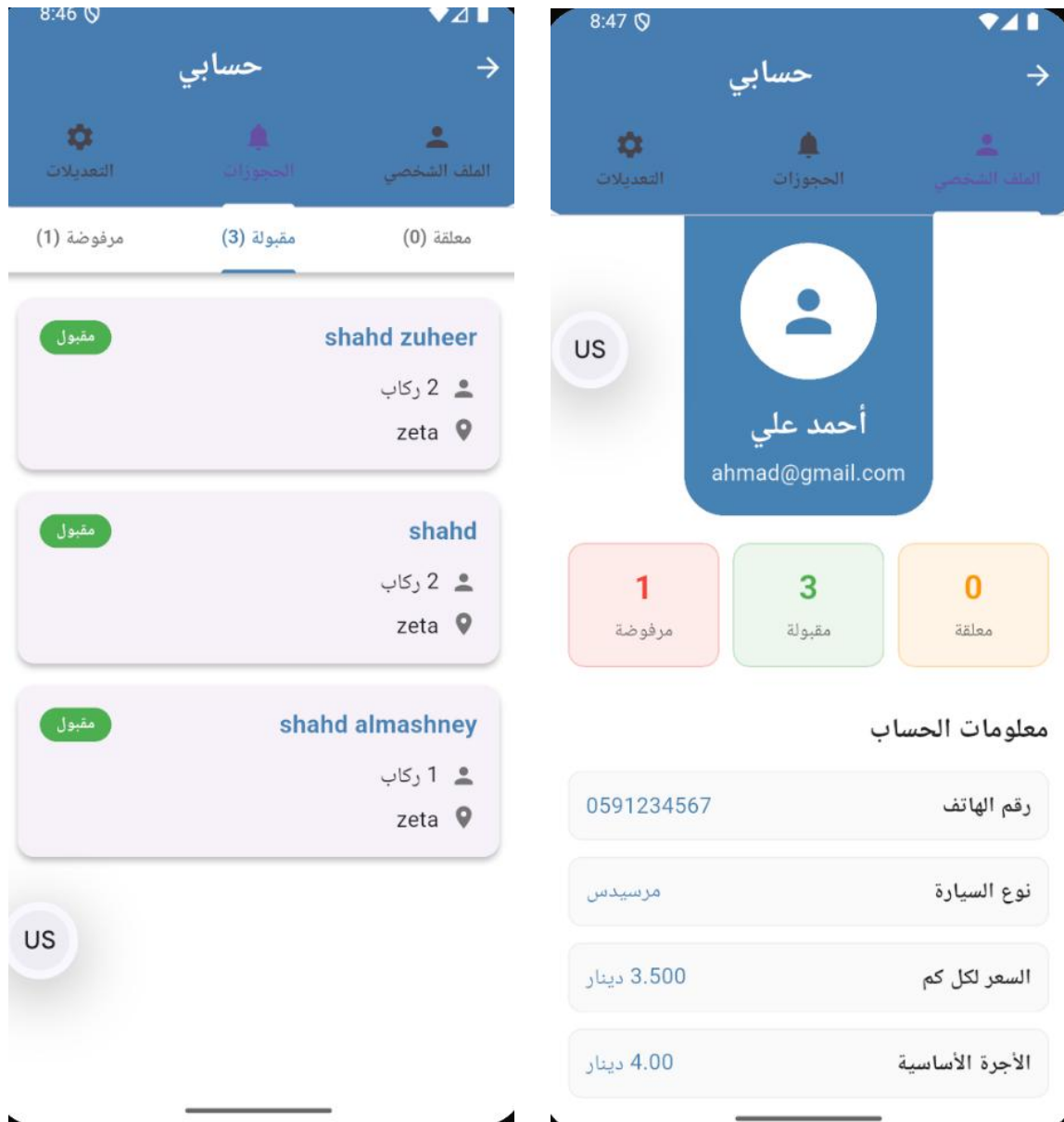


Figure 41 Booking Management by Driver

When the driver logs out of their account, they are automatically redirected to the welcome page.

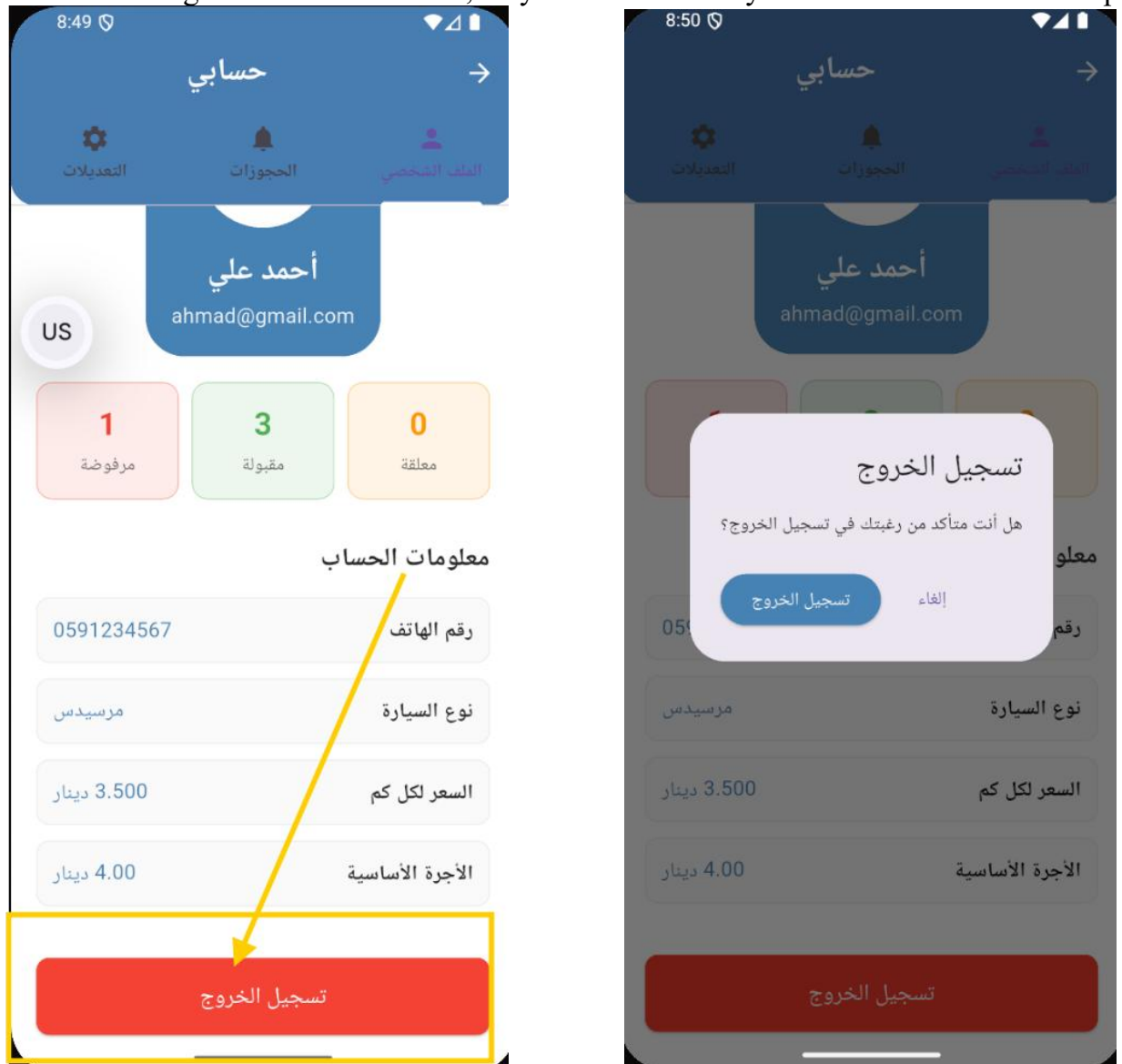


Figure 42 Driver Logout

Notifications screen : The Notifications screen displays all messages received by the user from the driver. The first notification the user receives is when the driver accepts a booking request, instantly informing the user of their booking status. This screen allows the user to easily and clearly track all updates related to their bookings.

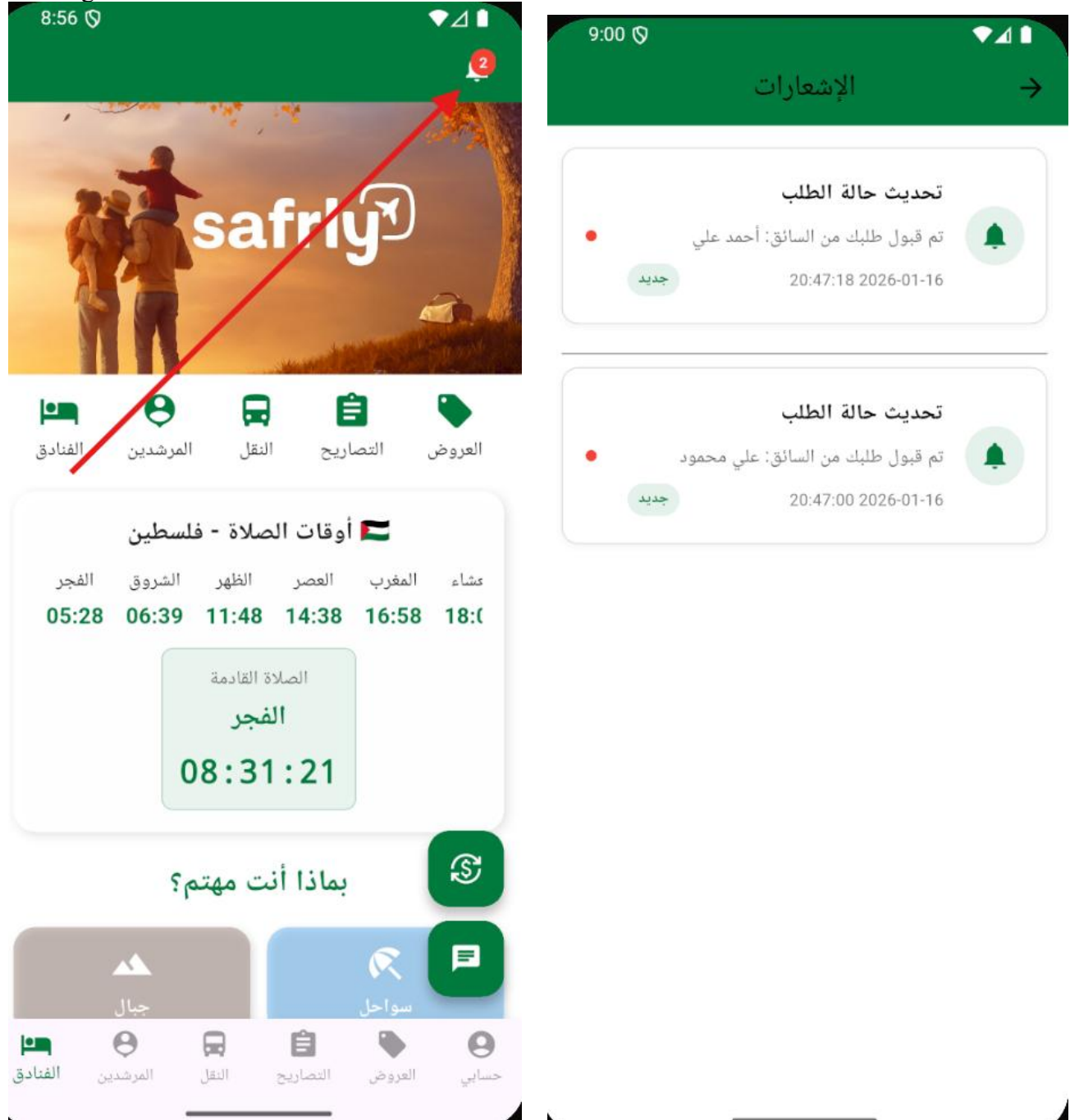


Figure 43 Notifications screen

- **hotel admin :**

The hotel admin logs into the application through the registration page using the email and password provided by the general administrator (admin). The hotel admin is granted the necessary permissions to add, delete, and modify hotel information, as well as efficiently manage hotel bookings within the system.



مرحباً بعودتك

سجل دخولك للمتابعة في Safrly



s1214396@stu.najah.edu



...

تسجيل الدخول

هل نسيت كلمة المرور؟

US

ليس لديك حساب؟ | إنشاء حساب جديد

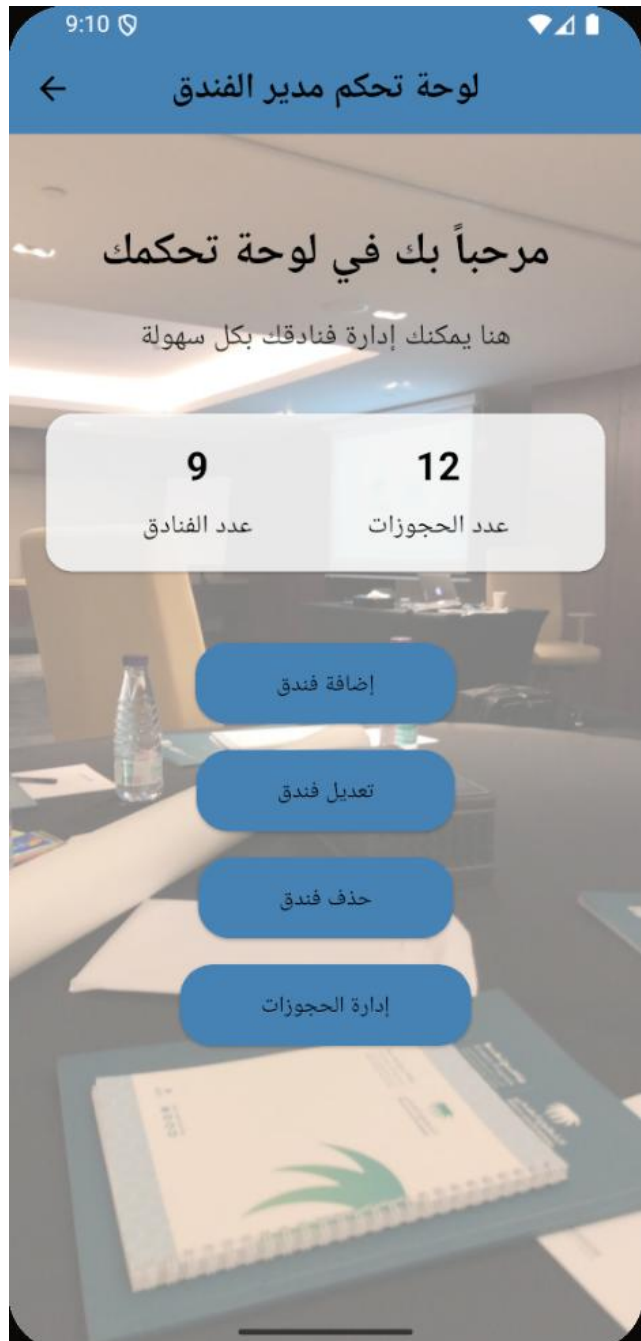


Figure 44 hotel admin

The main page displays the total number of bookings and the total number of hotels registered and available in the application, allowing administrators to quickly and easily monitor important statistics

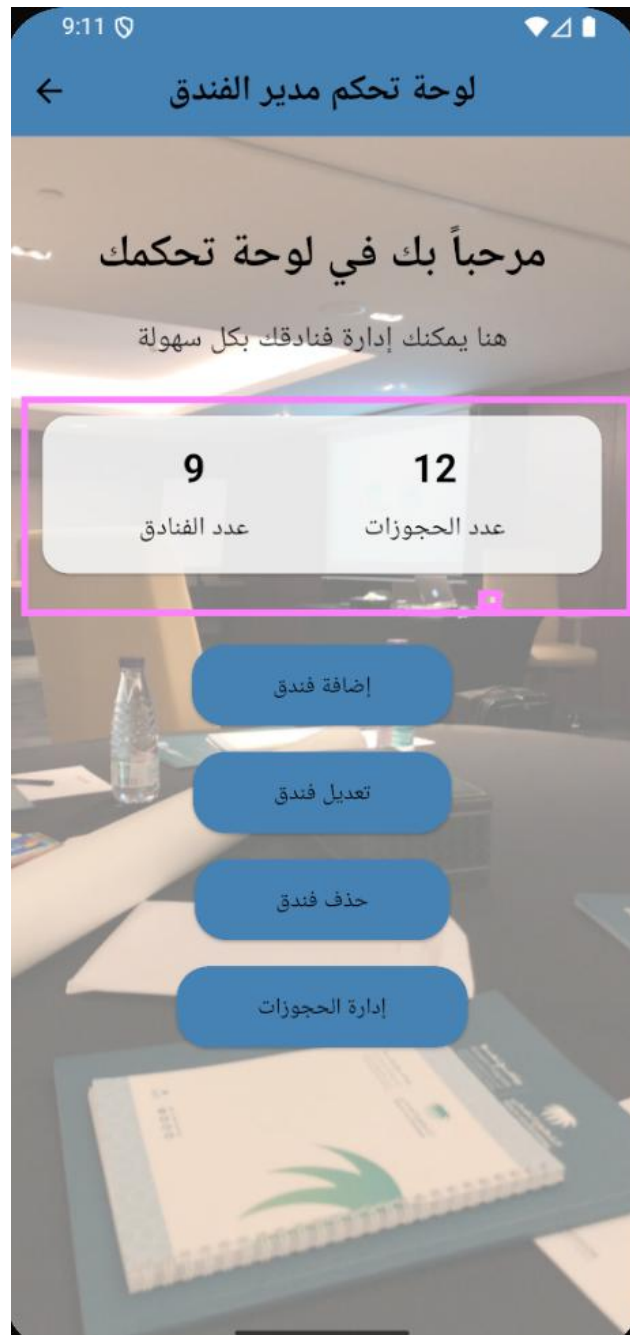


Figure 45 hotel admin

لوحة تحكم مدير الفندق

مرحباً بك في لوحة تحكمك

هنا يمكنك إدارة فنادقك بكل سهولة

عدد الفنادق: 9 عدد الحجوزات: 12

إضافة فندق

تعديل فندق

حذف فندق

إدارة الحجوزات

إضافة فندق

اسم الفندق

المدينة

السعر

عدد النجوم

الخدمات

الإفطار

الموقع

اختيار الصور

حفظ

تم إضافة الفندق بنجاح

Figure 46 Add New Hotel Page (By Hotel Admin)

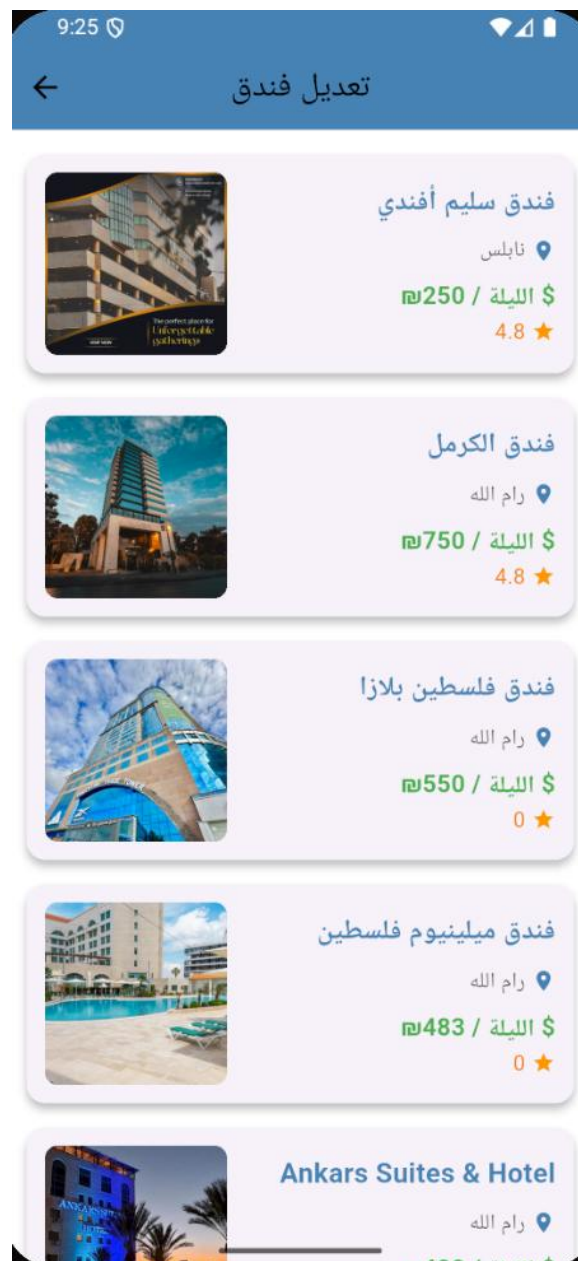
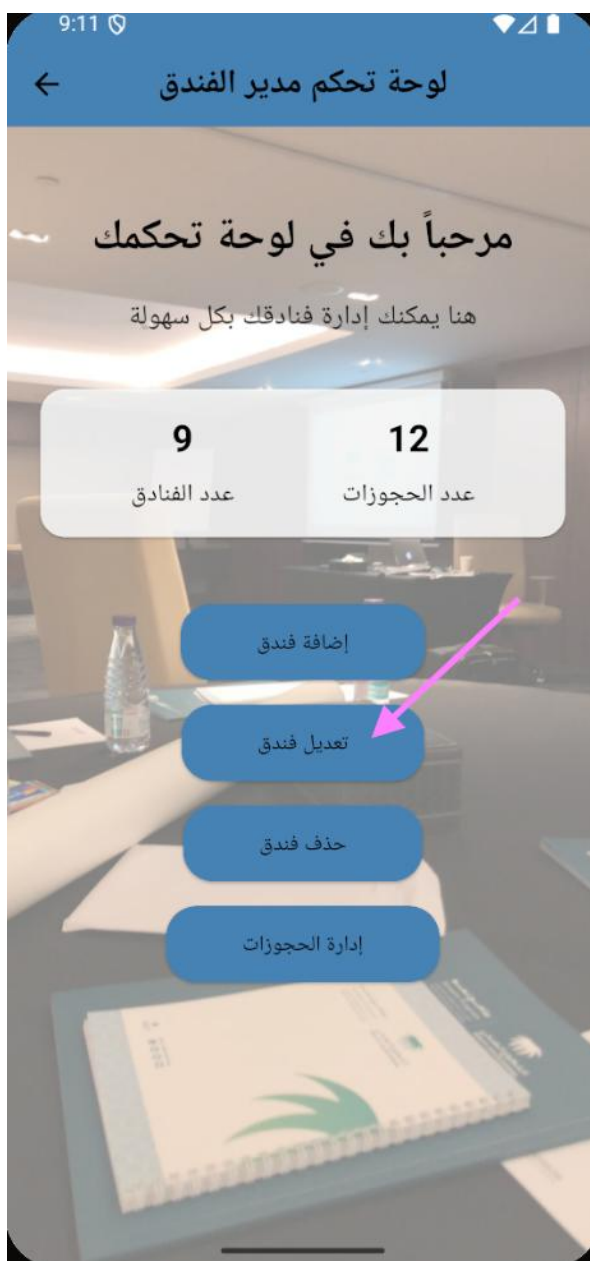


Figure 47 Edit Hotel Details Page (By Hotel Admin)

When the user wants to edit a specific hotel, they click on the hotel name to open a page containing all the hotel's details. Then, they can modify any information, whether it's images, prices, or any other details, and easily save the changes.

The image displays two screenshots of a mobile application interface for editing hotel details. Both screenshots show the 'تعديل: فندق الكرمل' (Edit: Hotel Al-Karmel) page.

Left Screenshot (9:28):

- صور الفندق الحالية:** Two images of the hotel are shown with red 'X' marks, indicating they can be removed or replaced.
- إضافة صور جديدة:** A button to add new images.
- معلومات الفندق:**
 - اسم الفندق: فندق الكرمل
 - المدينة: رام الله
 - السعر: ₪750 / الليلة
 - التقييم: 4.8 ★
 - عدد النجوم: 5 ★

Right Screenshot (9:30):

- معلومات الفندق:**
 - اسم الفندق: فندق الكرمل
 - المدينة: رام الله
 - السعر: ₪750 / الليلة
 - التقييم: 4.5 ★** (This field is highlighted with a pink border, indicating it is the active field for editing.)
 - عدد النجوم: 5 ★
 - الخدمات: قهوة / الشاي في جميع الغرف, بار
 - الإفطار: متضمن
 - الموقع: وسط مدينة رام الله
- حفظ التعديلات:** A button to save the changes.

تم تعديل الفندق بنجاح

Figure 48 Edit Hotel Details Page (By Hotel Admin)

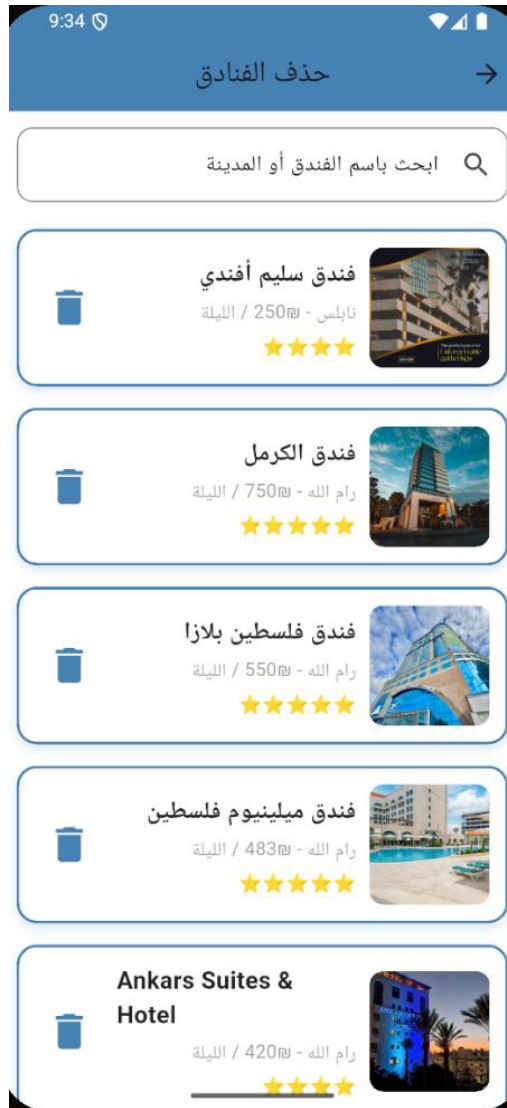
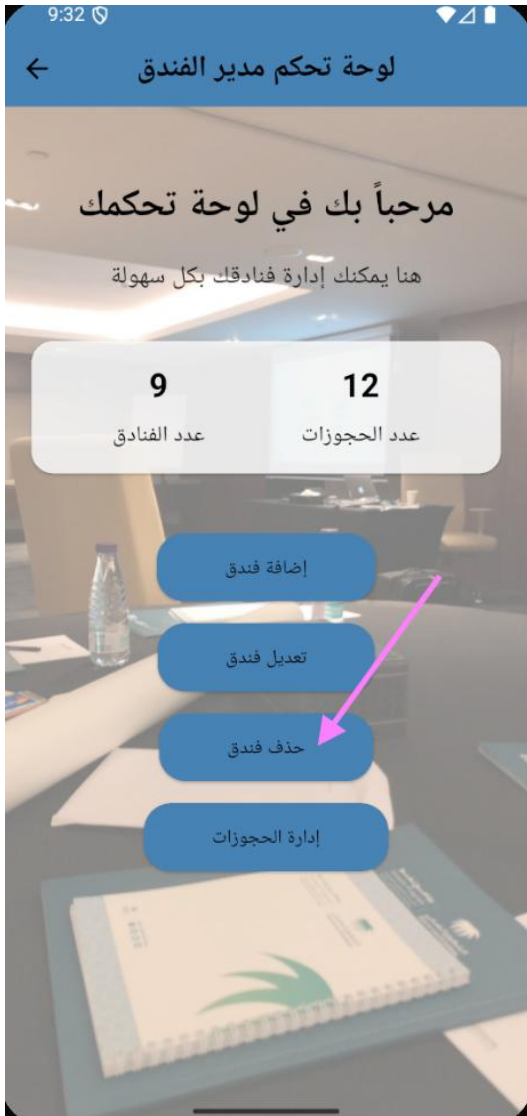


Figure 49 Edit Hotel Details Page (By Hotel Admin)

In the bookings management section, the user can easily edit or delete any booking. The section also allows printing the booking details as a PDF for convenient and organized documentation or sharing.

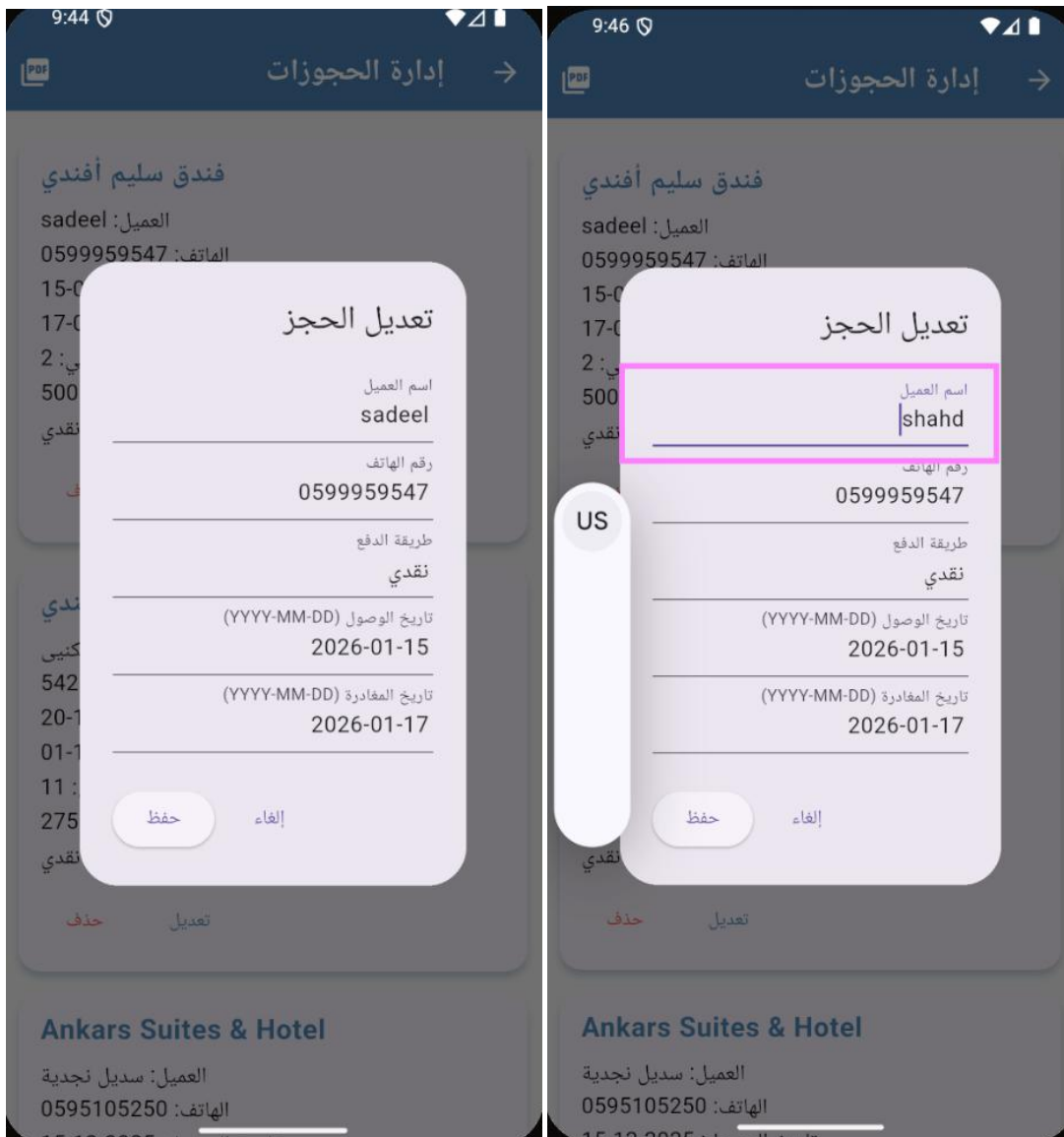


Figure 50 Booking Management Page (By Hotel Admin)



تم حذف الحجز بنجاح

Figure 51 Booking Management Page (By Hotel Admin)



تم تحديث الحجز بنجاح

Figure 52 Booking Management Page (By Hotel Admin)

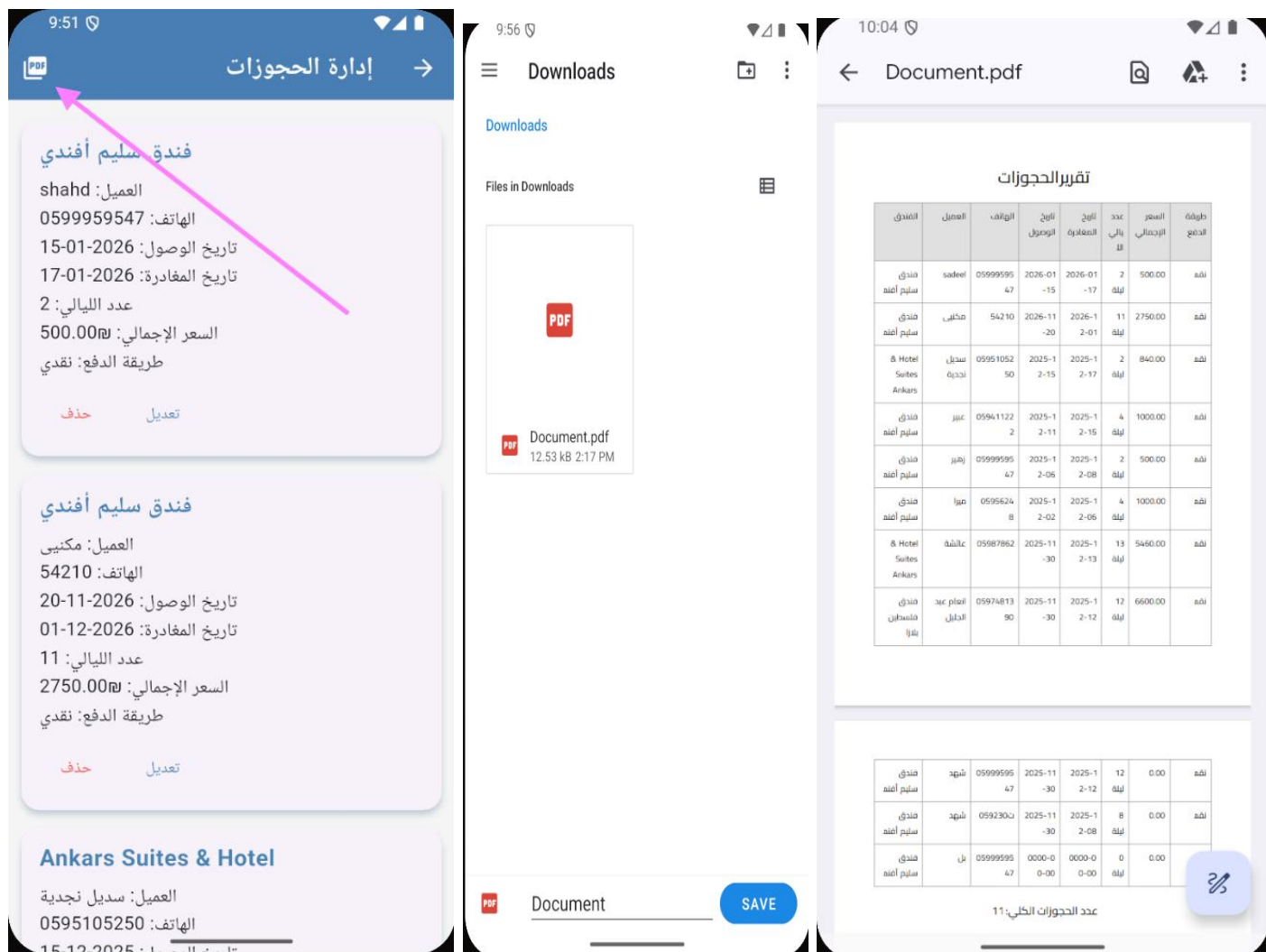


Figure 53 Booking Management Page (By Hotel Admin)

- ## Guide Dashboard :

The guide logs into the system through the login page using the email and password provided to them by the general admin. After logging in, the guide can access their personal page where they can update their profile picture, edit their bio, and modify all their personal information. Additionally, the guide can manage their previous and current bookings, including accepting or rejecting any booking as they wish, giving them full control over their schedule and the ability to organize their appointments easily and efficiently.

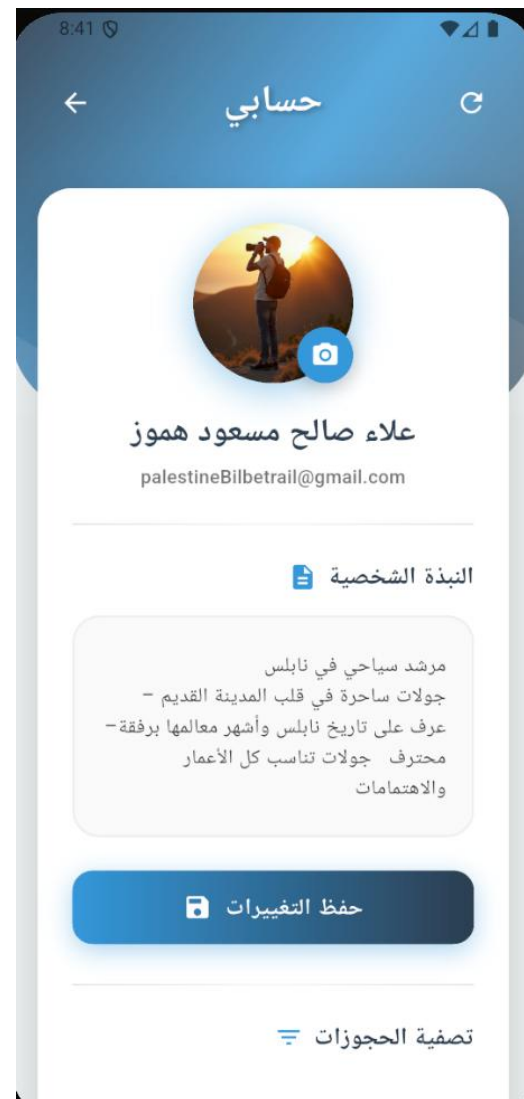
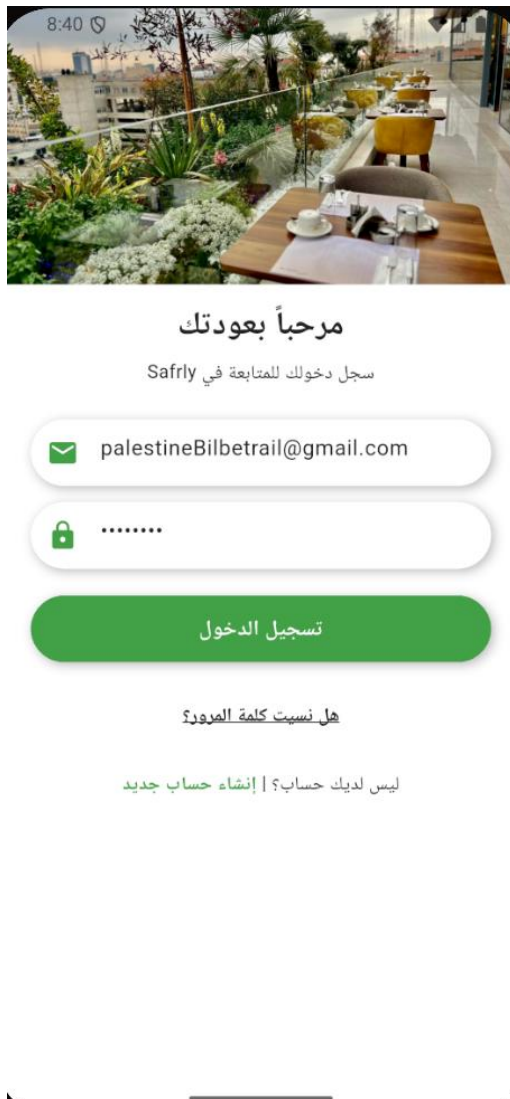
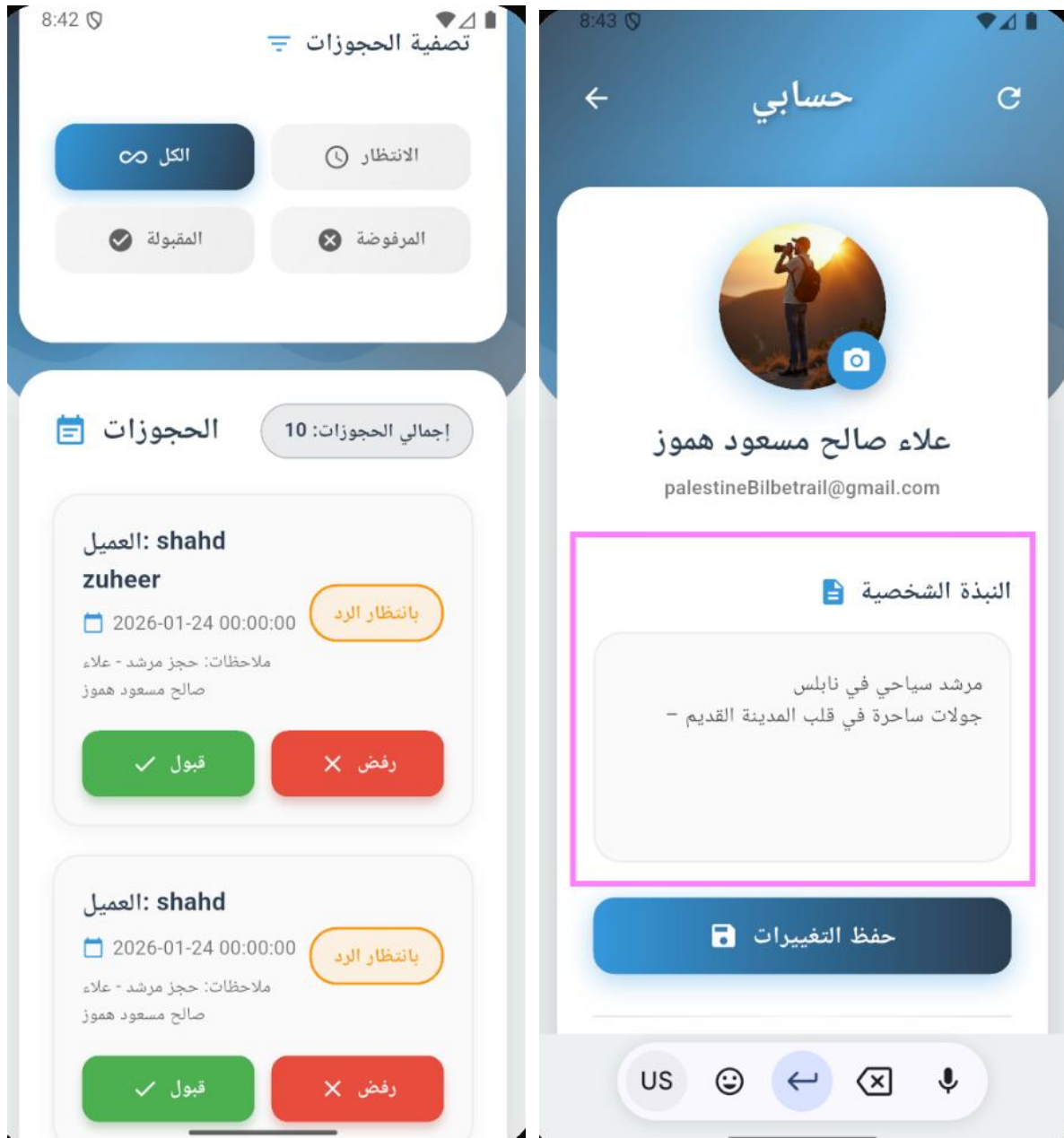


Figure 54 Guide Dashboard



حفظ النبة

Figure 55 Guide Profile Edit Page

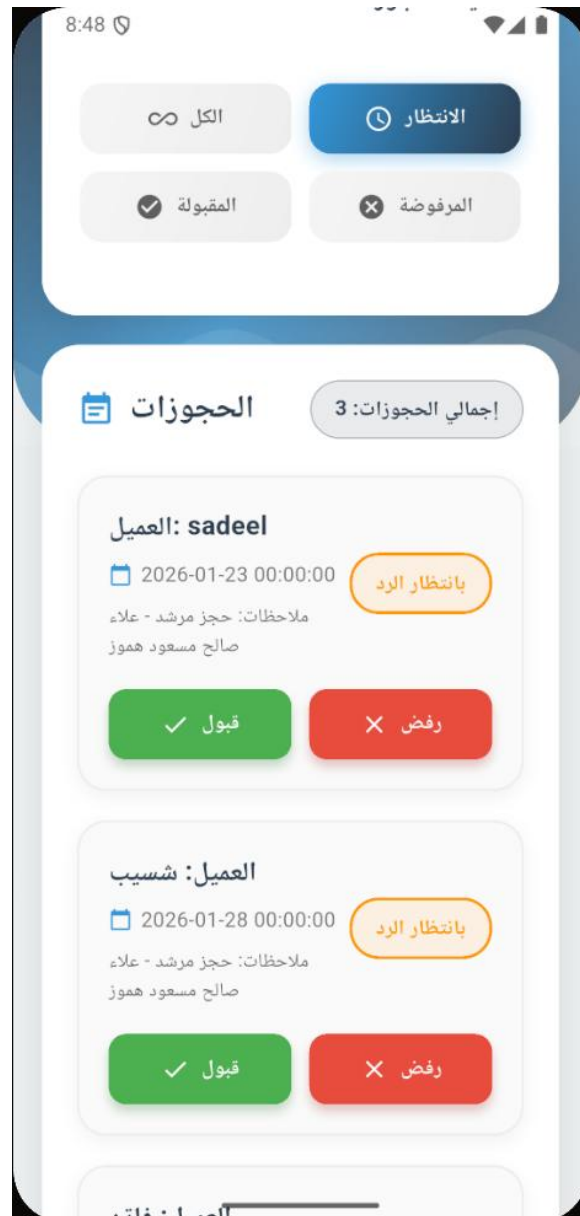
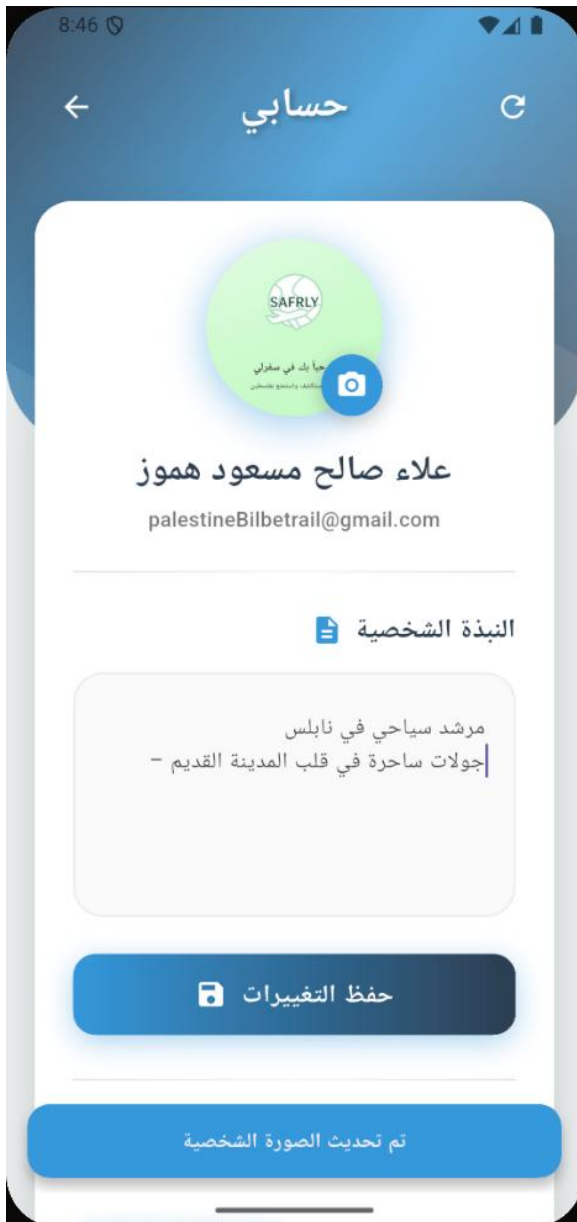


Figure 56 Guide Profile Edit Page

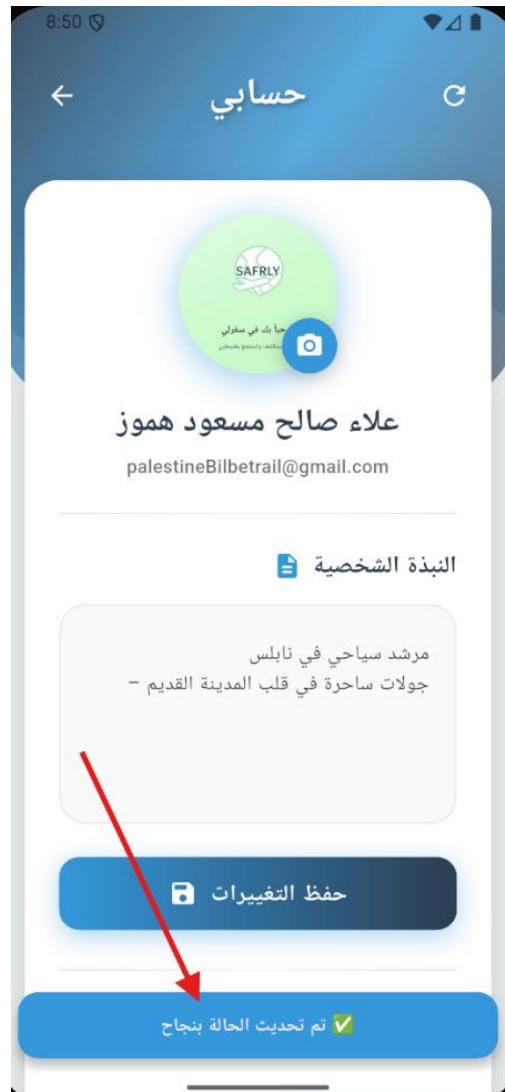


Figure 57 Guide Profile Edit Page

Notifications screen :When the guide accepts or rejects a booking, a notification is sent to the user informing them whether their booking has been accepted or rejected. This page allows users to easily track the status of their bookings in real time, ensuring they stay updated on any changes made by the guide to their reservations.



Figure 58 Notifications screen

- **General admin:**

The general admin has a verified email and a private password to log into the application through the login page.

Upon successful login, the admin can access and manage the various admin pages and functionalities within the system



Figure 59 General admin

At the top of the general admin page, there is a quick overview dashboard that provides statistics on the number of users, hotels, permit requests, and all bookings. This summary allows the admin to have a clear and immediate insight into the system's overall activity and status.



Figure 60 General admin

4.3.2 Website :

I am developing the application using **Flutter**, and all the features available on the mobile version are also present on the website. Now, I will show a part of the general admin page on the website, specifically the main actions that the admin can perform.

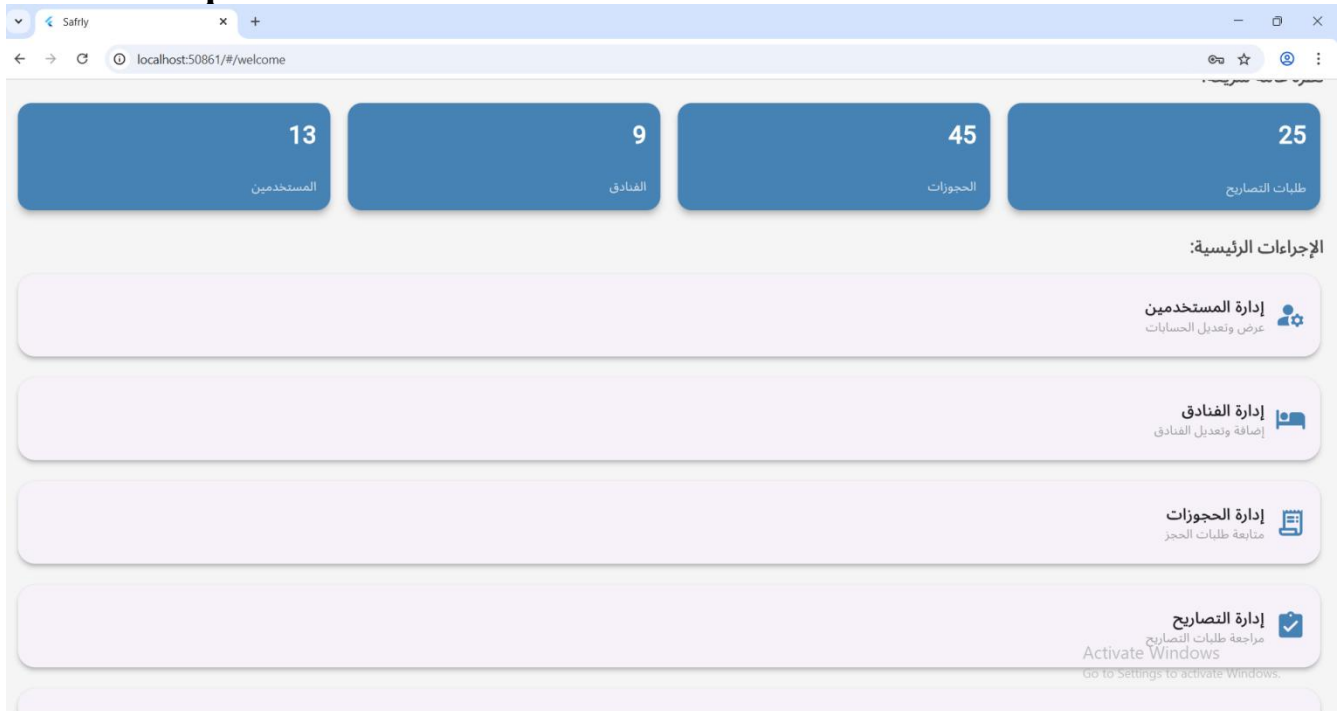


Figure 61 General admin

User Management Page : The admin can add a new user and assign the appropriate role to them. Additionally, the admin has the ability to delete, disable, or modify existing users as needed to maintain proper control over user access and roles within the system.

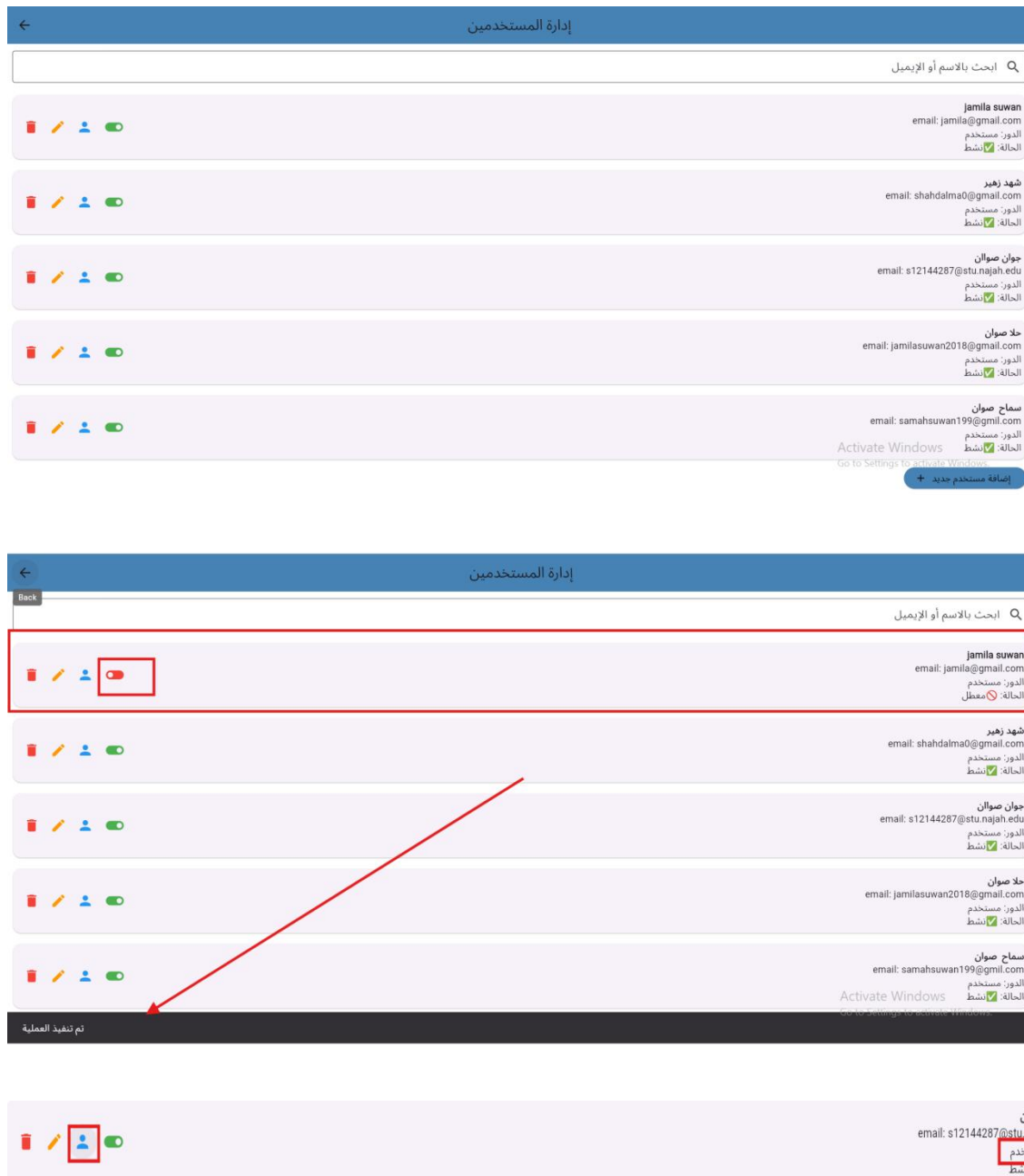


Figure 62 User Management Page

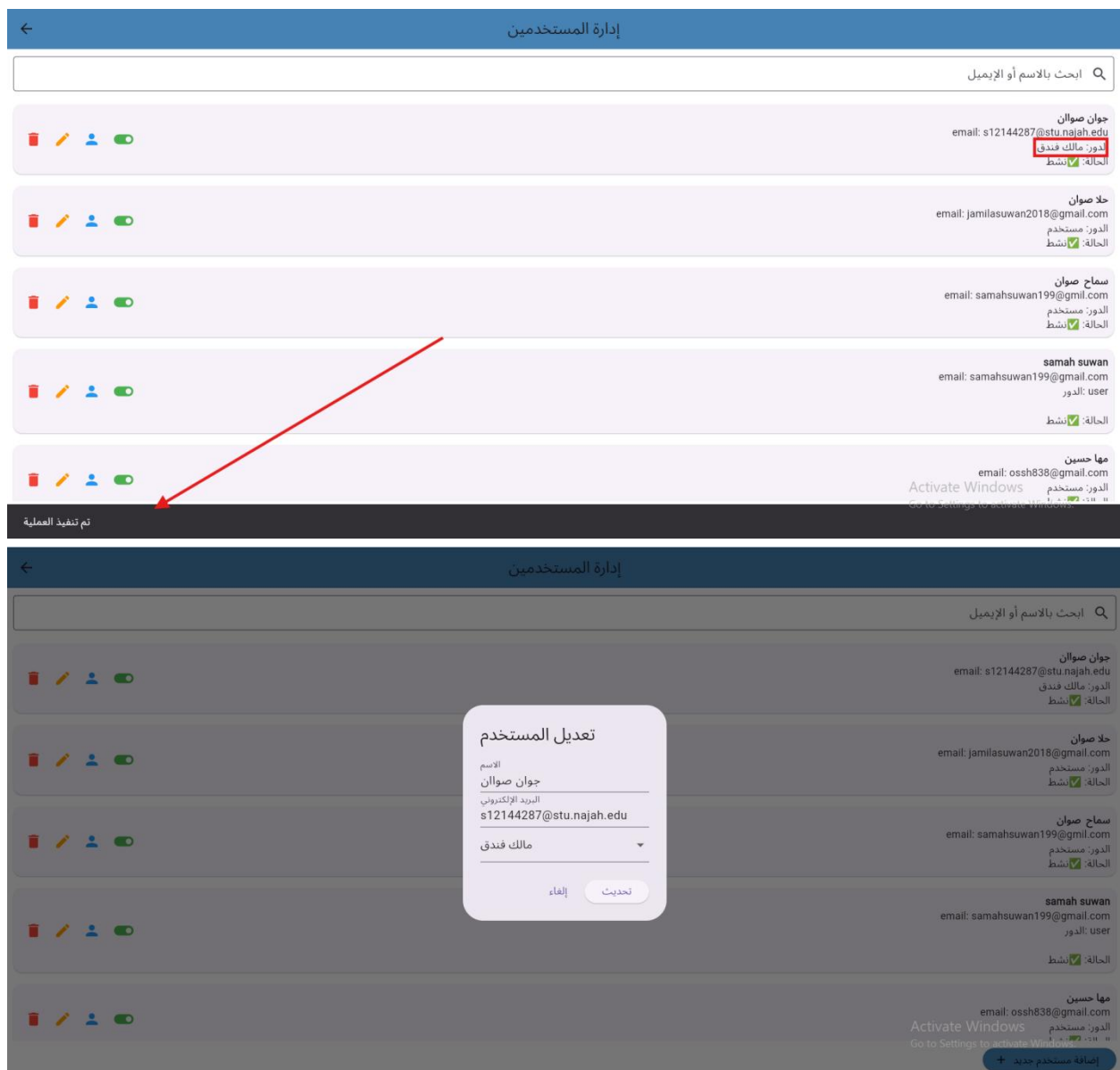


Figure 63 User Management Page

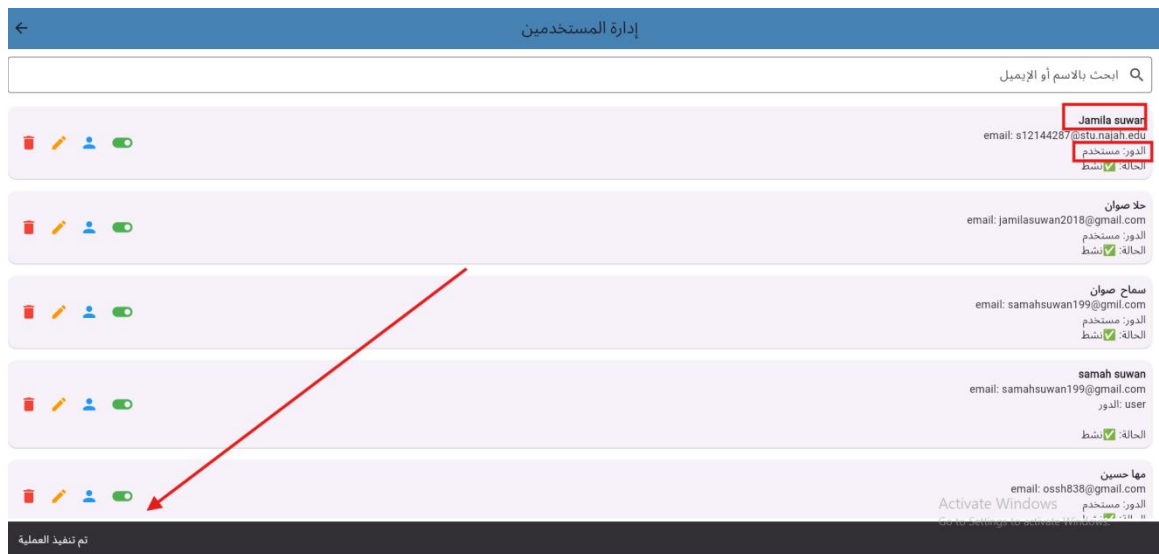
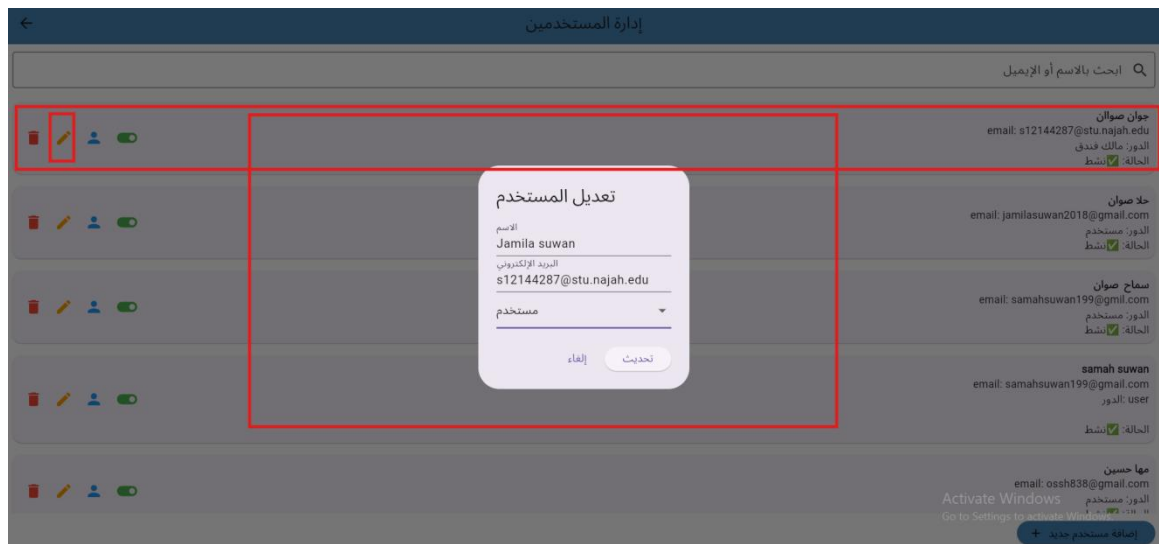


Figure 64 User Management Page



Figure 65 User Management Page

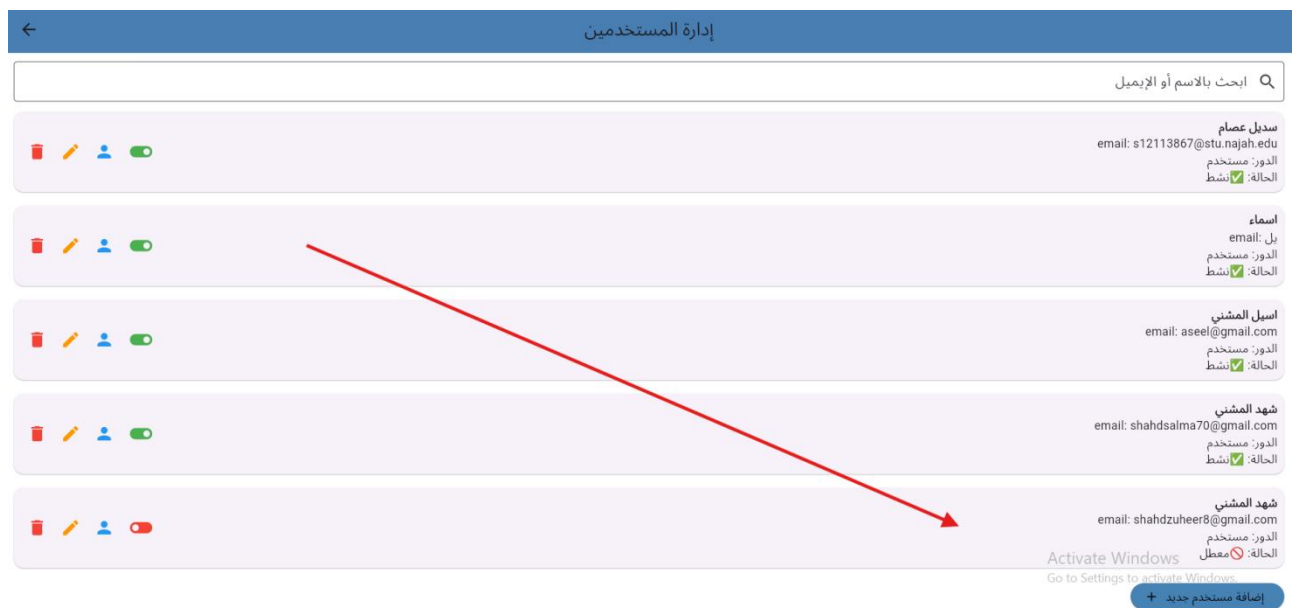
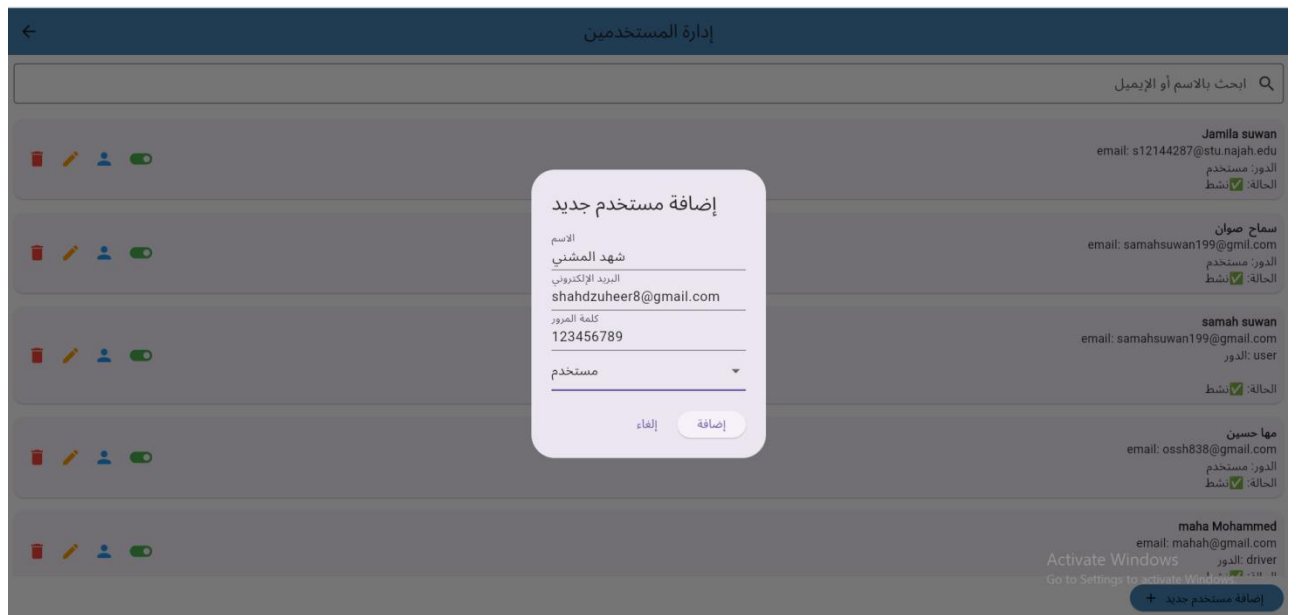


Figure 66 User Management Page

Hotel Management Page: This page is used for adding, deleting, and modifying hotel information, as well as managing hotel bookings, which is also handled by the hotel admin.



Figure 67 Hotel Management Page

إضافة فندق

→

اسم الفندق

المدينة

السعر

عدد النجوم

الخدمات

الإفطار

الموقع

Activate Windows

Go to Settings to activate Windows.

إضافة فندق

→

السعر

عدد النجوم

الخدمات

الإفطار

الموقع

اختيار الصور

لم يتم اختيار صور

حفظ

Activate Windows

Go to Settings to activate Windows.

Figure 68 Hotel Management Page

←

تعديل: فندق سليم أفندي

صور الفندق الحالية:








إضافة صور جديدة

معلومات الفندق:

اسم الفندق

فندق سليم أفندي

العنوان

نايلس

السعر

الليلة / 250

التقييم

4.8

عدد النجوم

4

الخدمات

0

الإنتظار

0

الموقع

دوار الشهداء وسط المدينة

حفظ التعديلات

Activate Windows

Go to Settings to activate Windows.

Figure 69 Hotel Management Page

حذف الفنادق	
ابحث باسم الفندق أو المدينة	
	فندق سليم أفندي نابلس - 250 غرفة ★★★★★
	فندق الكرمل رام الله - 750 غرفة ★★★★★
	فندق فلسطين بلازا رام الله - 550 غرفة ★★★★★
	فندق ميلينيوم فلسطين رام الله - 483 غرفة ★★★★★
	Activate Windows Go to Settings to activate Windows. Ankars Suites & Hotel

Figure 70 Hotel Management Page

Booking Management Page : The general admin manages the bookings for drivers, guides, as well as offers . When any request is accepted or rejected, a notification is sent to the user informing them of the status of their request, whether it has been approved or denied. The admin can also view rejected, accepted, and pending requests.

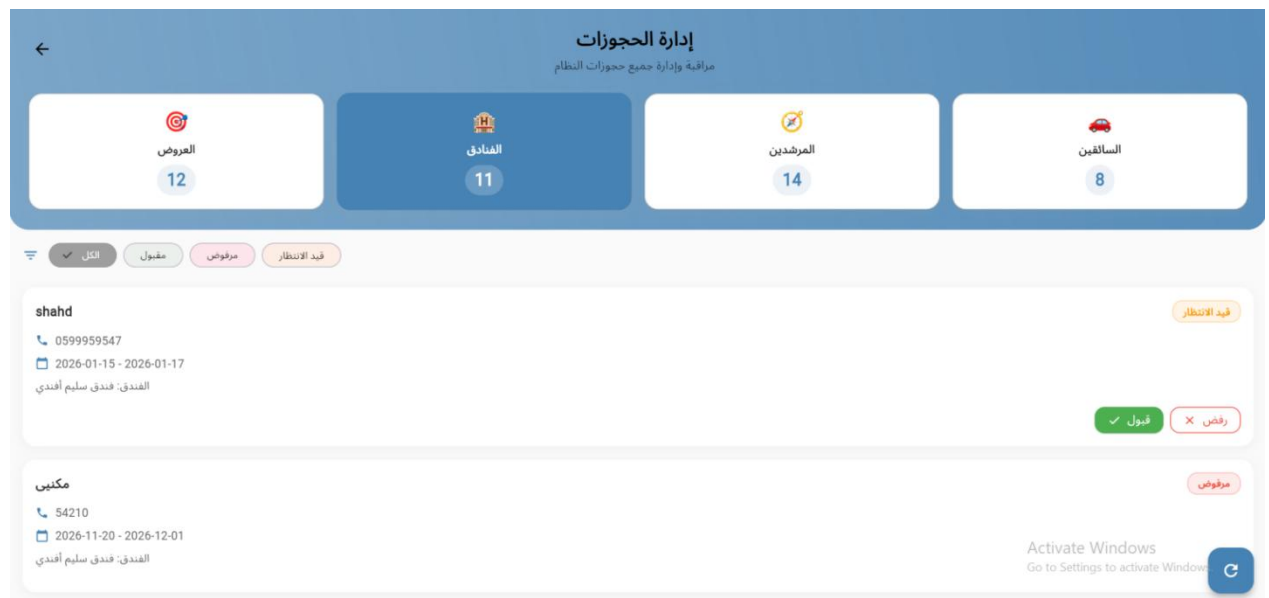
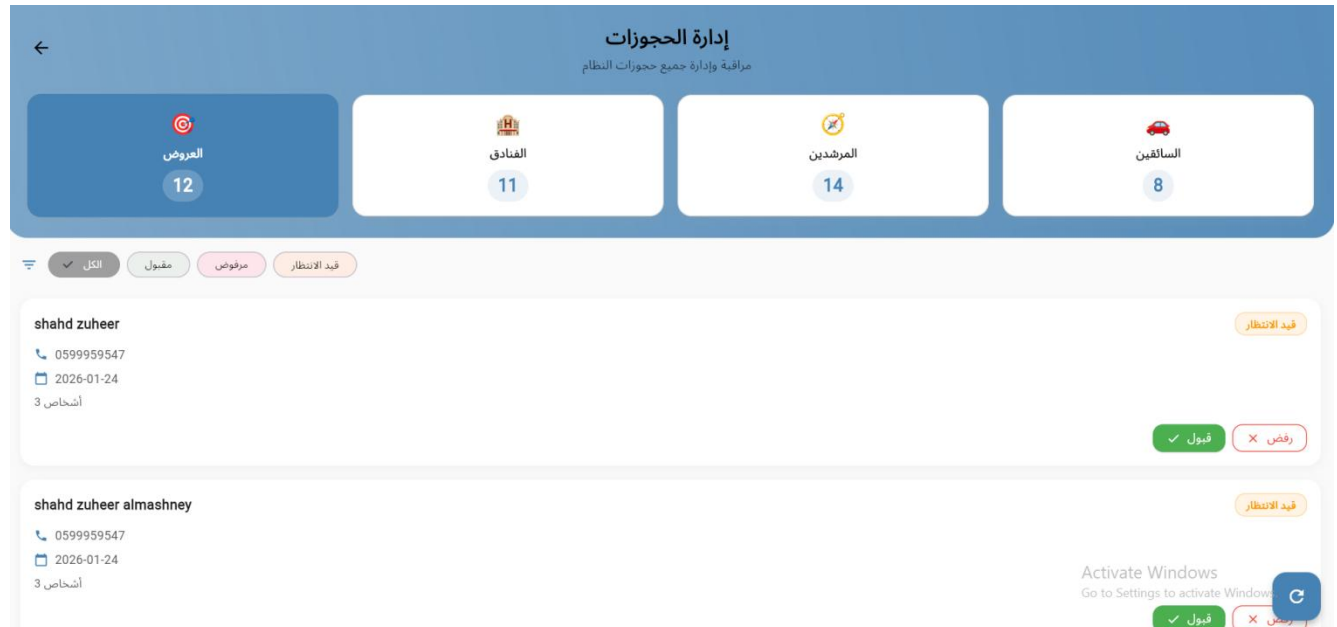


Figure 71 Booking Management Page



This is the user Shahd's page, where her offer request has been accepted, and a notification has been sent to her accordingly.

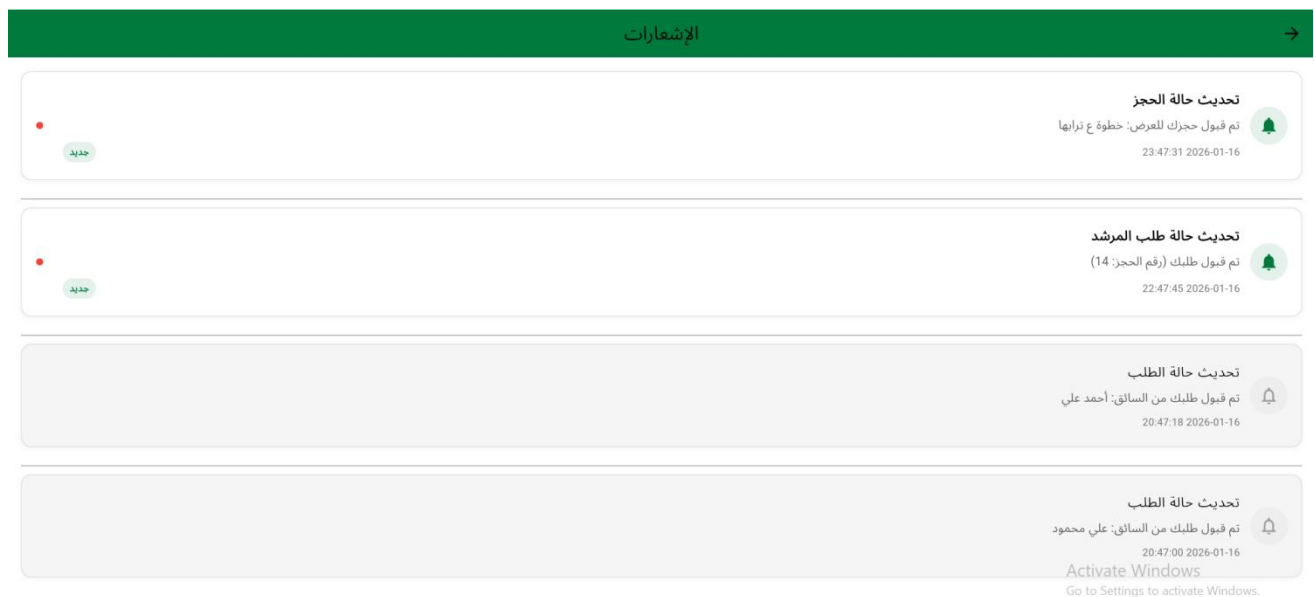


Figure 72 Booking Management Page&User Notifications

Permit Management Page : The admin can view all permit bookings and see which requests are accepted, rejected, or pending. Additionally, the admin has the authority to approve or respond to these permit requests. Whenever the admin replies, a notification is sent to the user informing them of the status of their request.

← إدارة التصاريح

ابحث بالاسم أو نوع التصريح...

عدد النتائج: 17

الطلبات الجديدة

shahd zuheer abdalbagy	قيد المراجعة	نوع التصريح: سياحة	التاريخ: 20:33:33 16-01-2026
shahd zuheer abdalbagy	قيد المراجعة	نوع التصريح: سياحة	التاريخ: 20:33:33 16-01-2026
shahd zuheer abdalbagy	قيد المراجعة	نوع التصريح: سياحة	التاريخ: 20:33:33 16-01-2026
shahd zuheer abdalbagy	قيد المراجعة	نوع التصريح: سياحة	التاريخ: 20:33:33 16-01-2026

الطلبات الجديدة

الطلبات المقبولة

الطلبات المرفوضة

كل الطلبات

shahd zuheer abdalbagy

قيد المراجعة

نوع التصريح: سياحة

التاريخ: 20:33:33 16-01-2026

Figure 73 Permit Management Page



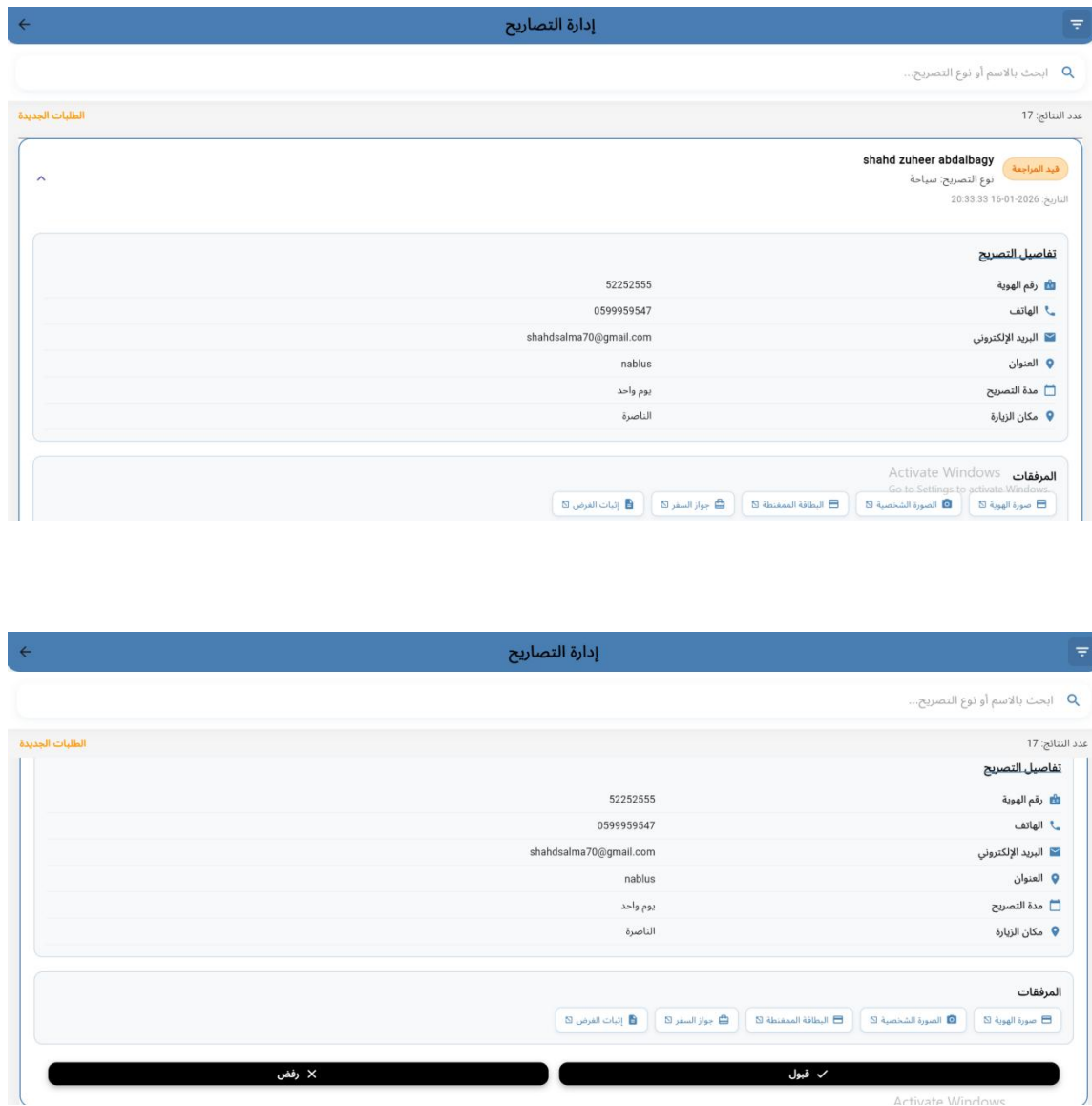
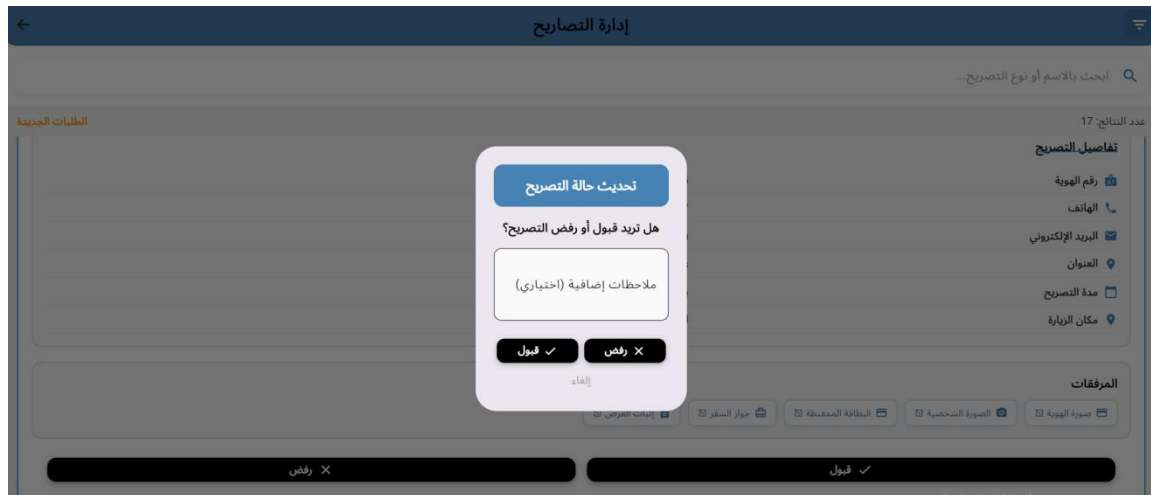


Figure 75 Permit Management Page



These notifications on the user Shahd's page were received when the admin updated the status of her permit. The user can see the updated status of her request directly and in real time.

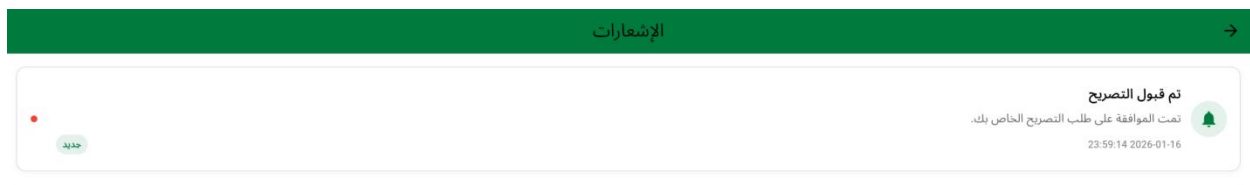


Figure 76 Permit Management Page & User Notifications

Transport Management Page : The general admin can add a new driver to the system, as well as change a driver's status from available to unavailable as needed. Additionally, the admin can delete any driver from the system when necessary. The page also includes a search feature to find drivers and displays the total number of drivers in the system.

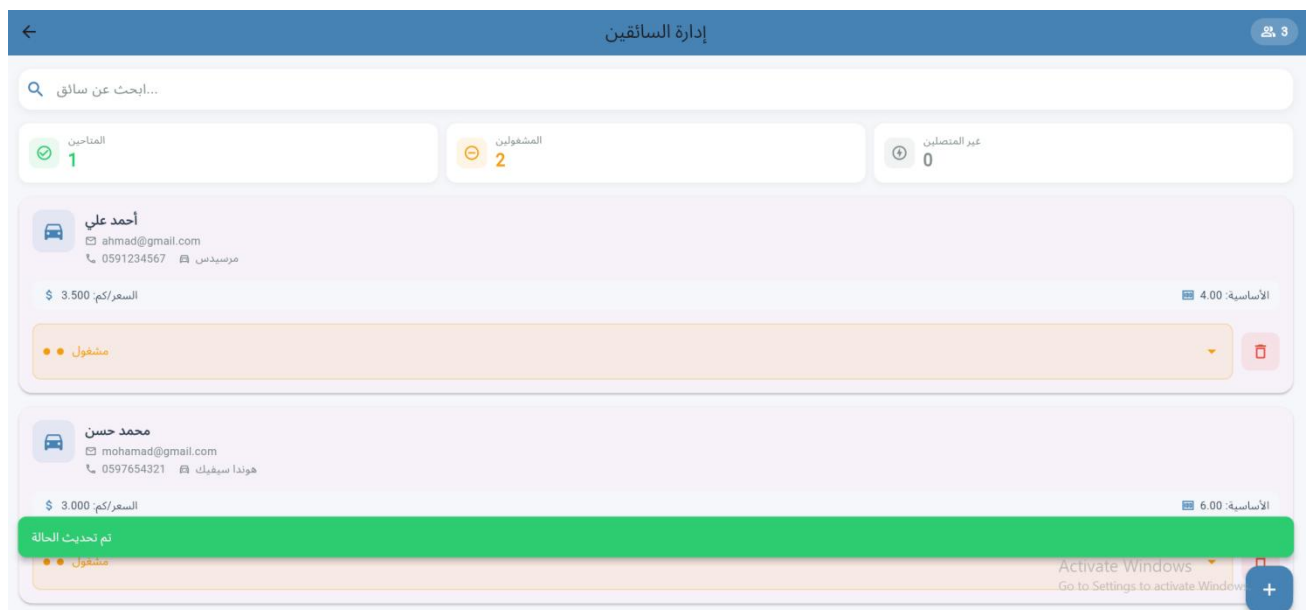
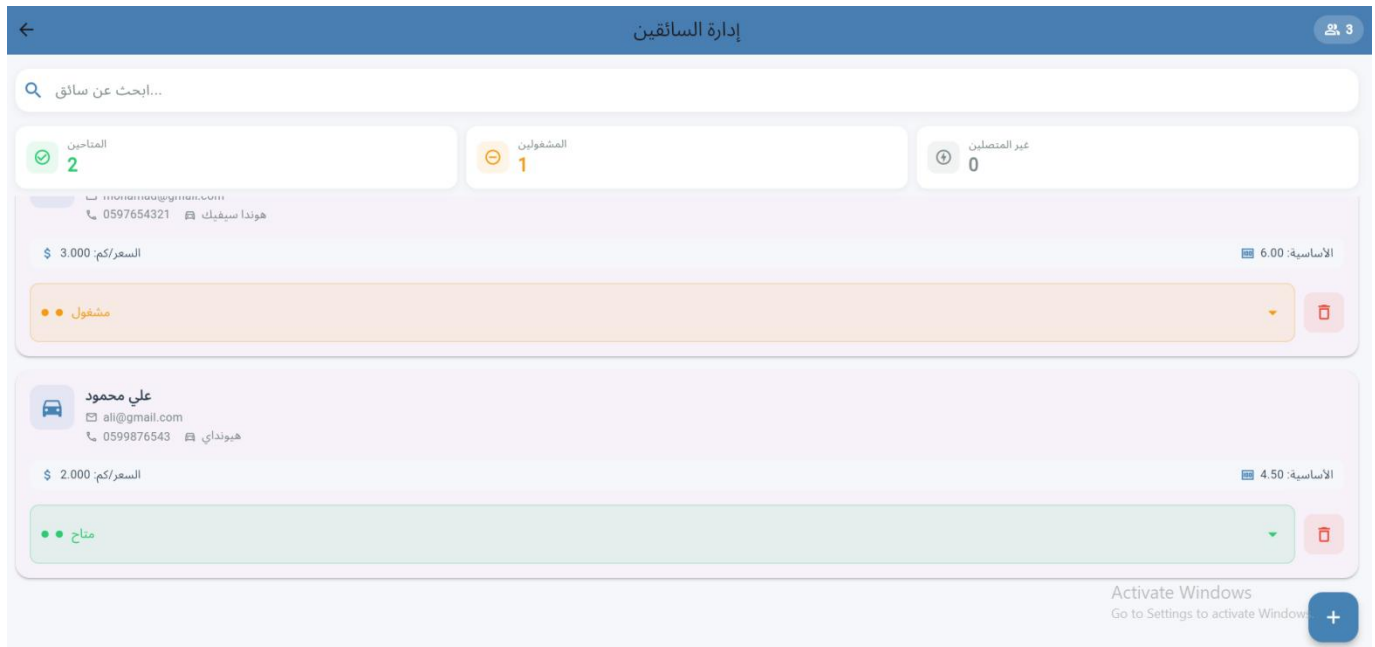


Figure 77 Transport Management Page

إضافة سائق جديد

الاسم الكامل *

رامز جلال

البريد الإلكتروني *

ramis@gmail.com

رقم الهاتف

059632553

نوع المركبة

هونداي

السعر/كم

\$ 1.0

الأجرة الأساسية

0.0

الحالة

غير متصل

إلغاء

إضافة ✓

إدارة السائقين

ابحث عن سائق...

المتاحين 1

المشغولين 3

غير المتصلين 0

رامز جلال

ramis@gmail.com

059632553 هونداي

السعر/كم: 1.000

الأساسية: 0.00

مشغول

أحمد علي

ahmad@gmail.com

0591234567 هونداي

السعر/كم: 3.500

الأساسية: 4.00

مشغول

تمت إضافة السائق بنجاح

Activate Windows

Go to Settings to activate Windows

Figure 78 Transport Management Page

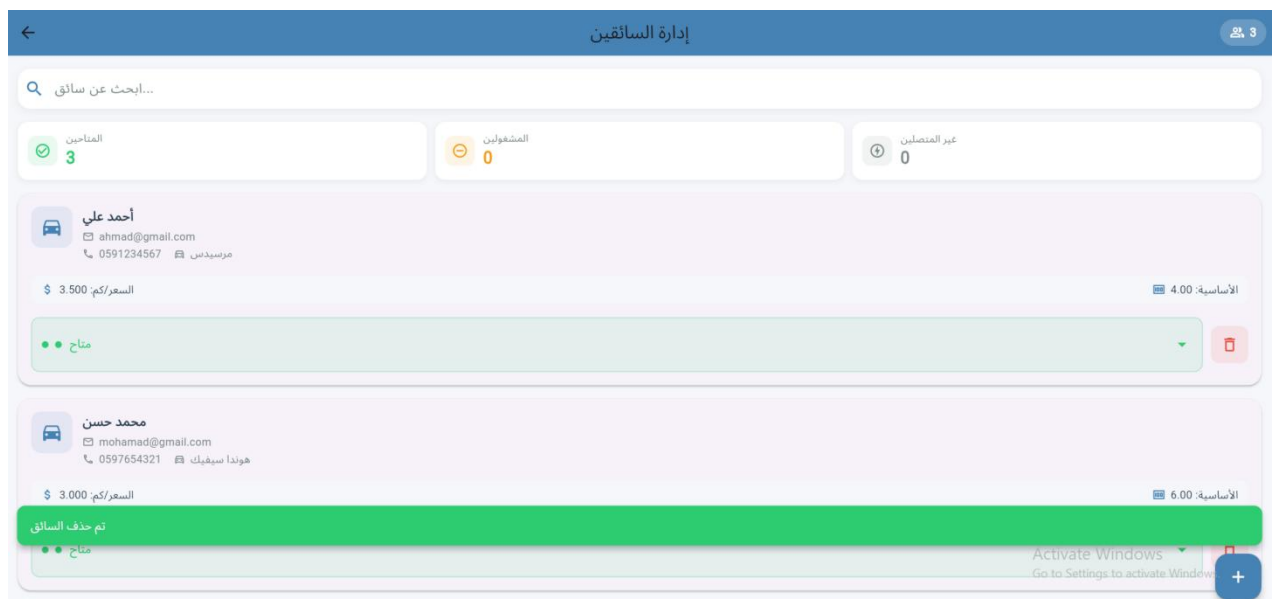
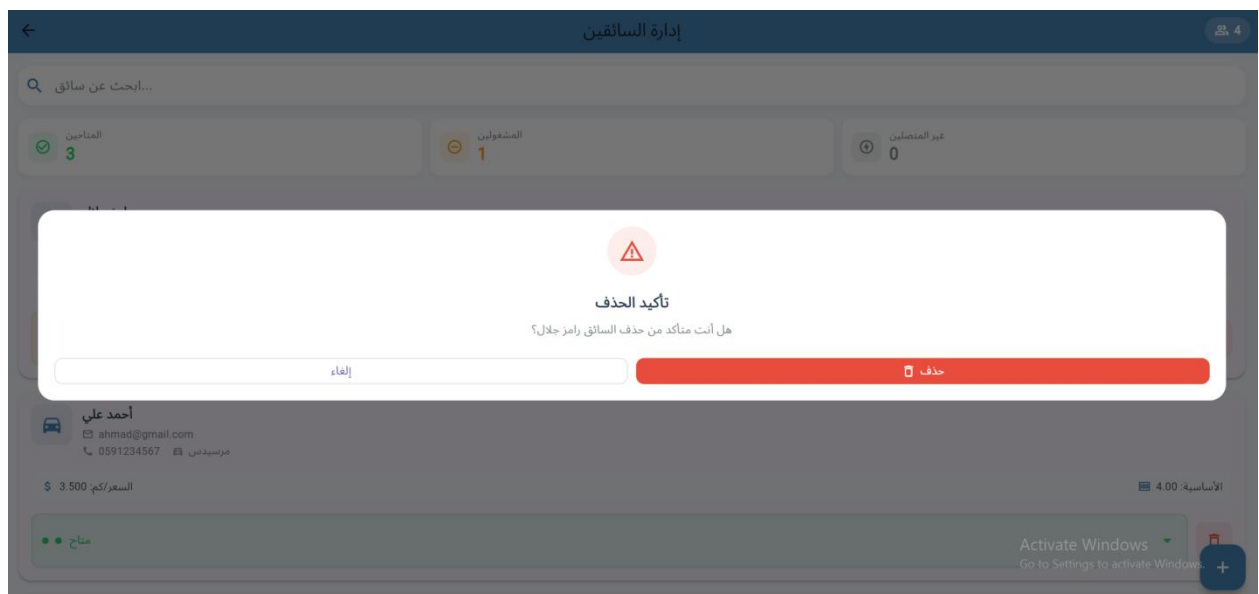
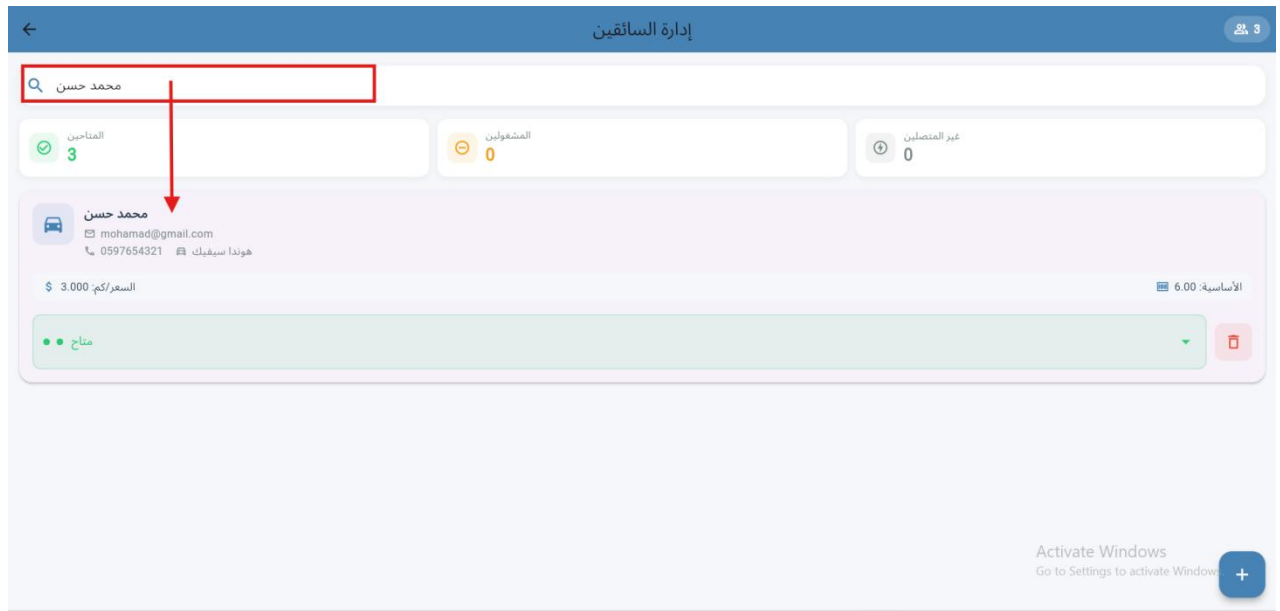


Figure 79 Transport Management Page



Ratings Overview Page: The admin reviews all ratings related to hotels, transport management, and guides. This allows the admin to take appropriate actions based on the feedback and to view statistics and percentages related to the quality of services provided.



Figure 80 Ratings Overview Page

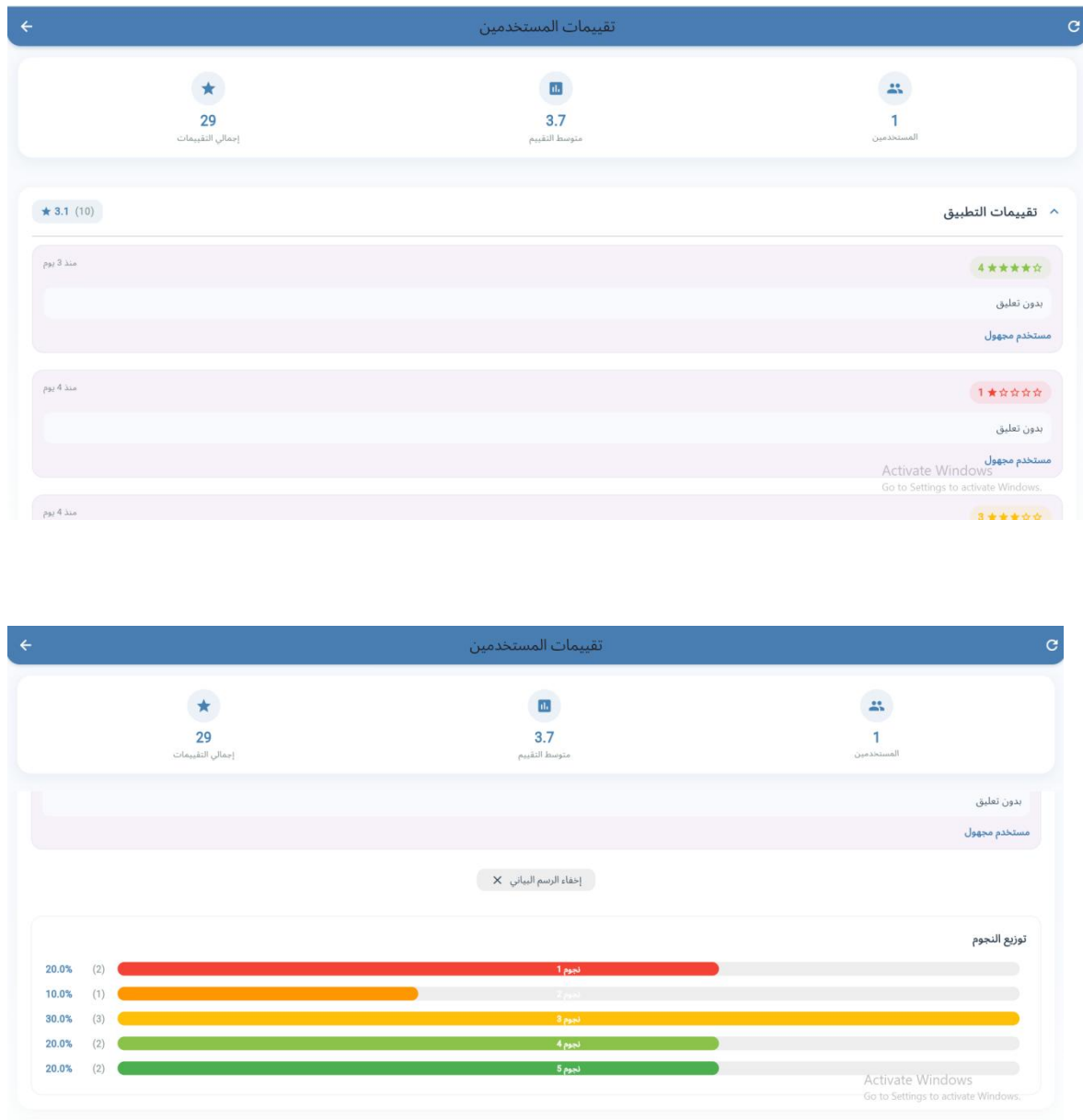


Figure 81 Ratings Overview Page

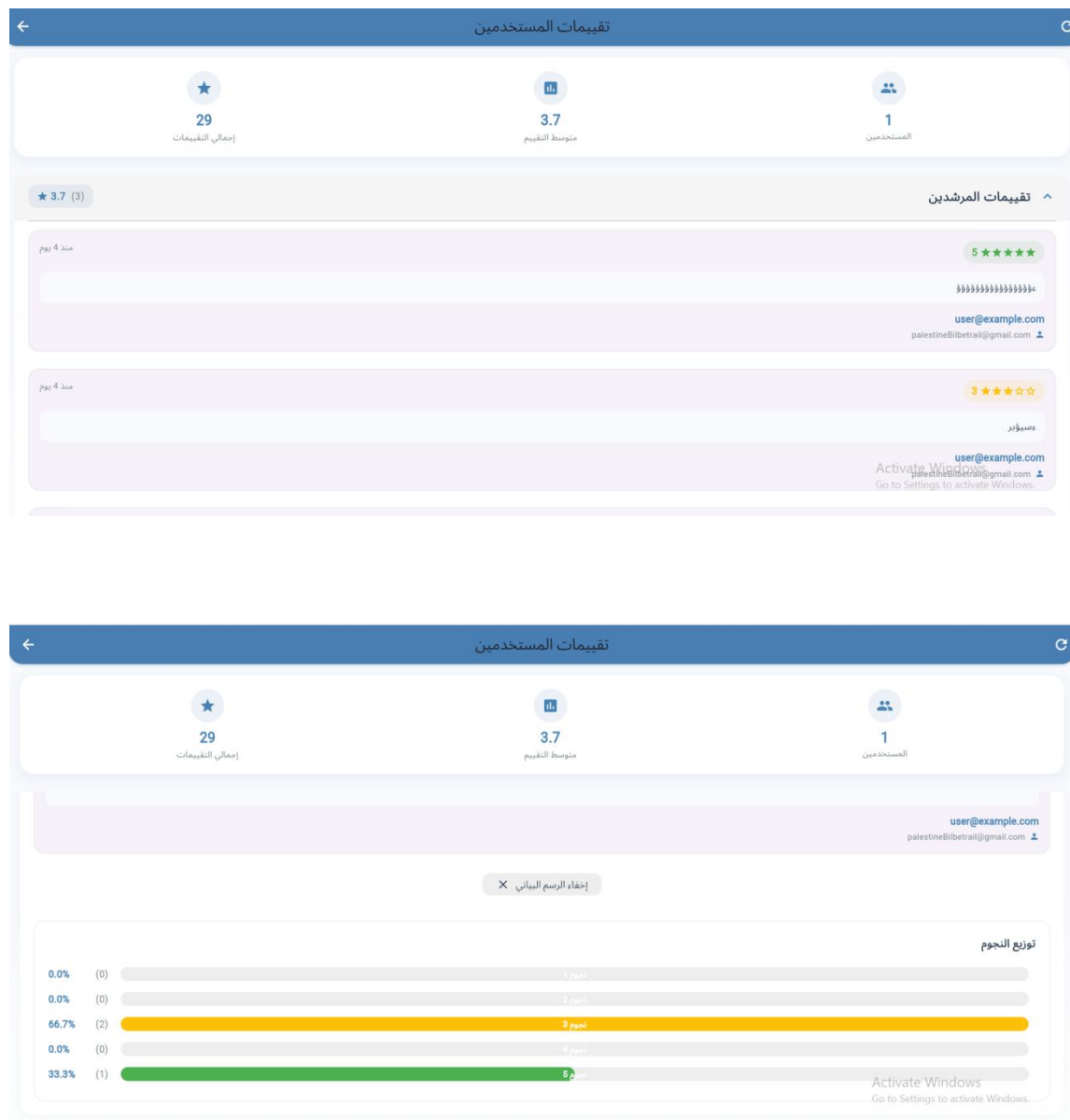


Figure 82 Ratings Overview Page

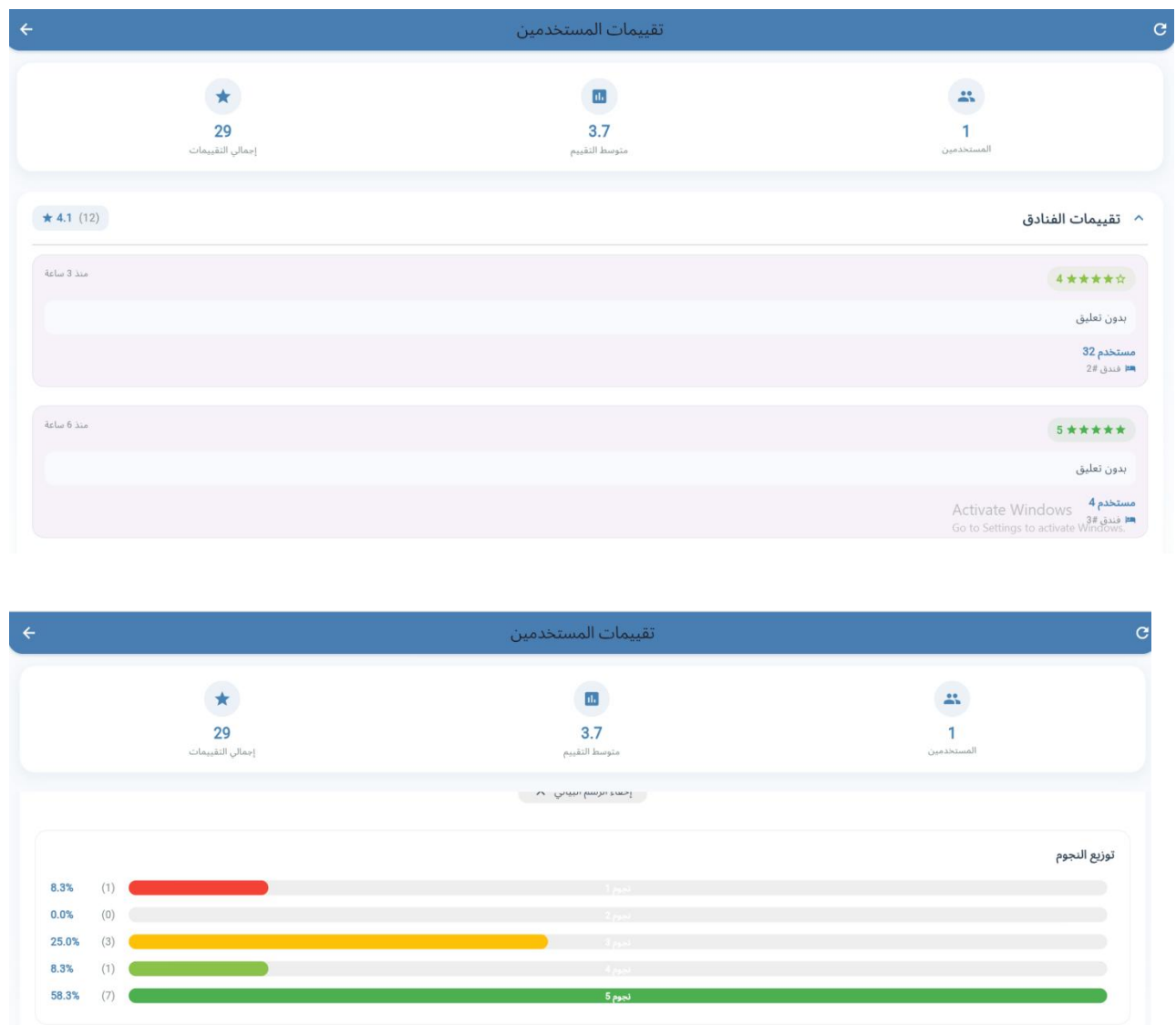


Figure 83 Ratings Overview Page



Figure 84 Ratings Overview Page

Offers Management Page : The general admin can add a new offer and view the existing offers. He can also edit, disable, or delete any offer as needed.

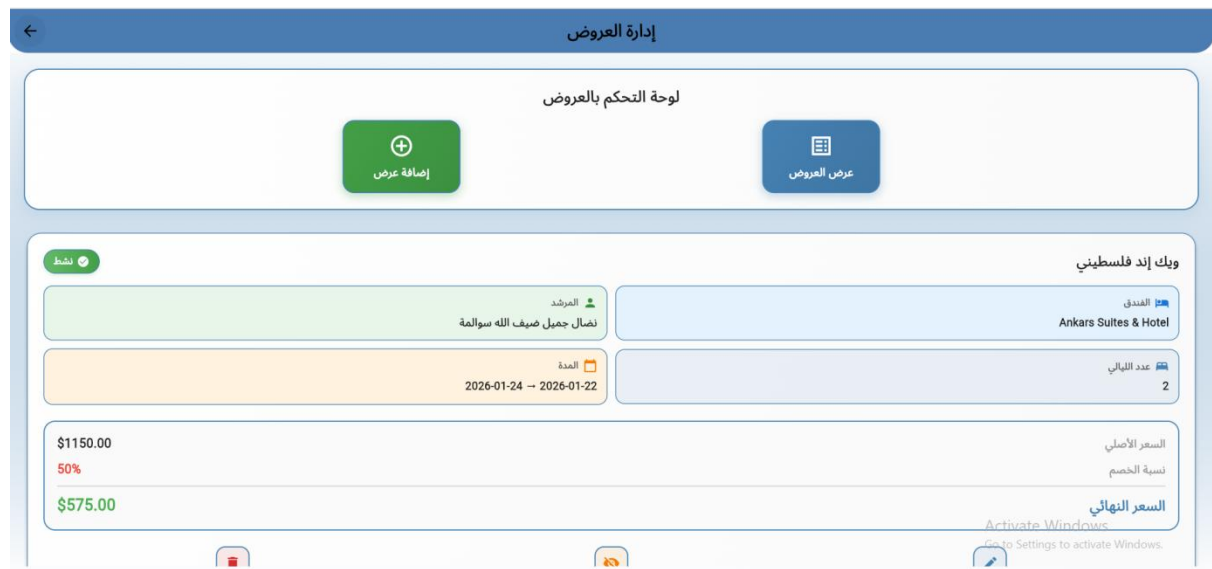
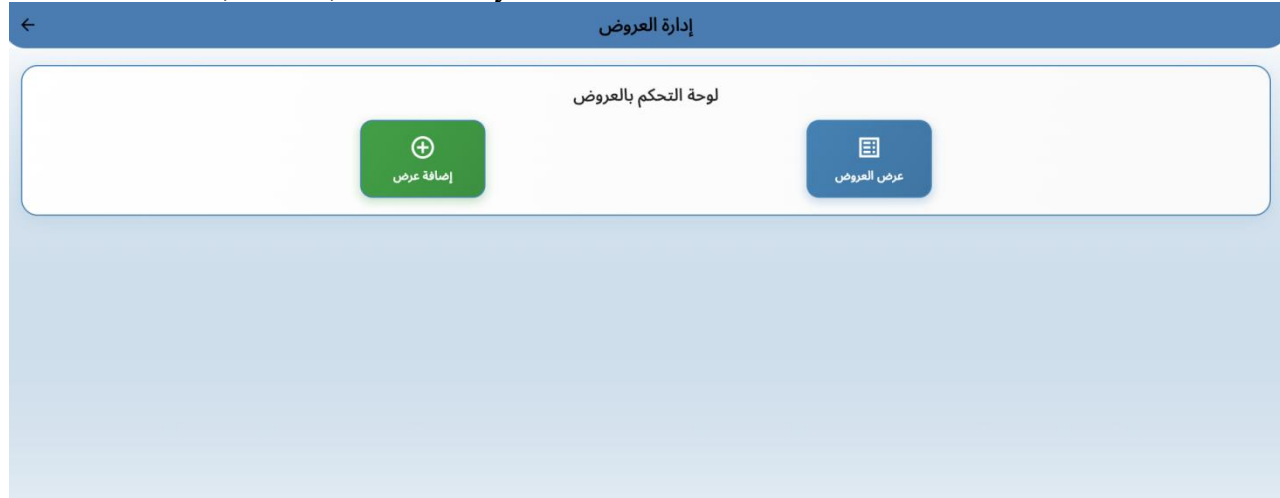


Figure 85 Offers Management Page

ويك إند فلسطيني

المرشد: نضال جميل ضيف الله سوالمة

الفندق: Ankars Suites & Hotel

المدة: 2026-01-24 → 2026-01-22

عدد الليالي: 2

السعر الأصلي: \$1150.00

نسبة الخصم: 50%

السعر النهائي: \$575.00

تنشيط

تنزيل

Active Windows

ويك إند فلسطيني

المرشد: نضال جميل ضيف الله سوالمة

الفندق: Ankars Suites & Hotel

المدة: 2026-01-24 → 2026-01-22

عدد الليالي: 2

السعر الأصلي: \$1150.00

نسبة الخصم: 50%

السعر النهائي: \$575.00

معاينة

تنزيل

Active Windows

تعديل العرض

عرض: ويك إند فلسطيني

نسبة الخصم: 50%

السعر الأصلي: \$1150.00

عدد الليالي: 3

الفندق: Ankars Suites & Hotel

المرشد: نضال جميل ضيف الله سوالمة

تاريخ البداية: 2026-01-22

تاريخ النهاية: 2026-01-25

حفظ التغييرات

إلغاء

Active Windows

Figure 86 Offers Management Page

إدارة العروض

إضافة عرض جديد

اسم العرض: الخميس الونيس

نسبة الخصم: 20 %

السعر الأصلي: 1000 \$

عدد الليالي: 3

الفندق: Ankars Suites & Hotel

المرشد: وفاء وليم يعقوب صايات

تاريخ البداية: 2026-01-16

تاريخ النهاية: 2026-01-19

إضافة العرض إلغاء

Activate Windows
Go to Settings to activate Windows.

إدارة العروض

لوحة التحكم بالعروض

إضافة عرض عرض العرض

الخميس الونيس

الفندق: Ankars Suites & Hotel

عدد الليالي: 3

المرشد: وفاء وليم يعقوب صايات

المدة: 2026-01-19 → 2026-01-16

السعر الأصلي: \$1000.00

نسبة الخصم: 20%

السعر النهائي: \$800.00

Activate Windows
Go to Settings to activate Windows.

Figure 87 Offers Management Page

←

إدارة العروض

لوحة التحكم بالعروض

إضافة عرض

عرض العروض

ممثل

المرشد
نضال جميل ضيف الله سوالمة

عدد الليالي
3

المدة
2026-01-25 -- 2026-01-22

الفندق
Ankars Suites & Hotel

السعر الأصلي
\$1150.00

نسبة الخصم
50%

السعر النهائي
\$575.00

103

Guide Management Page : The general admin can view all the guides in the system, as well as add new guides, delete existing ones, and edit their information as needed.



Figure 89 Guide Management Page



Figure 90 Guide Management Page

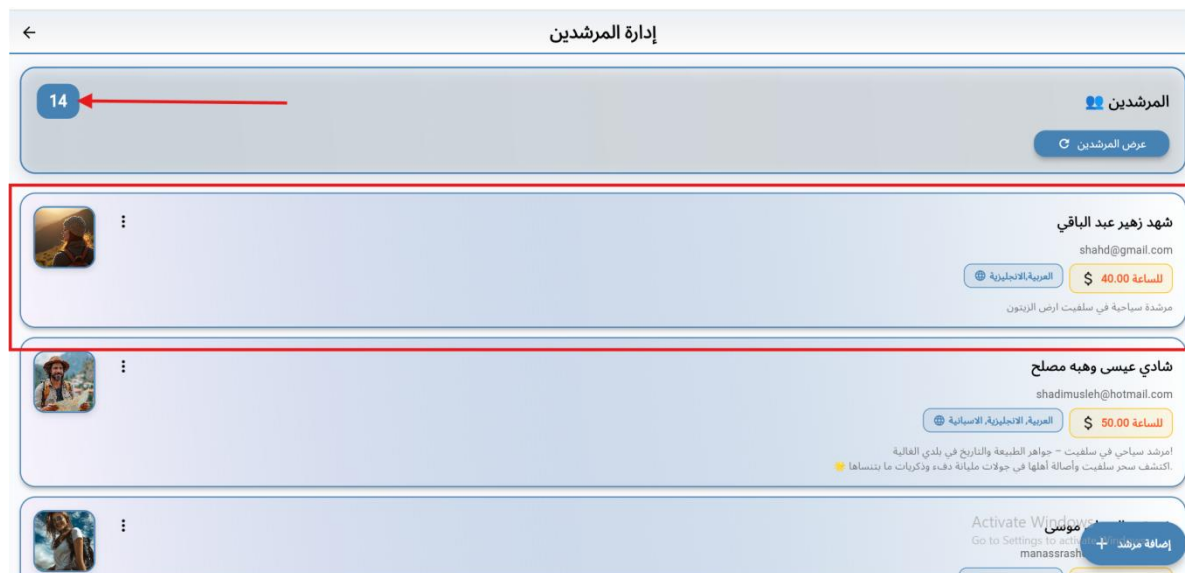


Figure 91 Guide Management Page

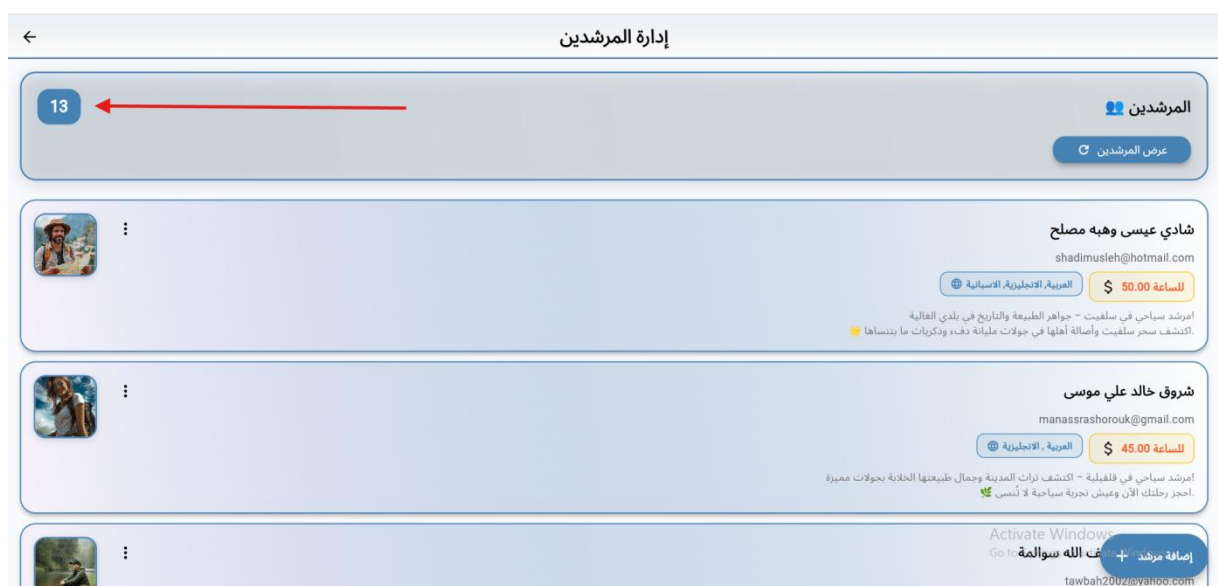


Figure 92 Guide Management Page

System Settings Page : The system settings page allows me to switch between dark mode and normal mode. It also provides access to the "About System" page to view application information, along with the option to log out of the account.

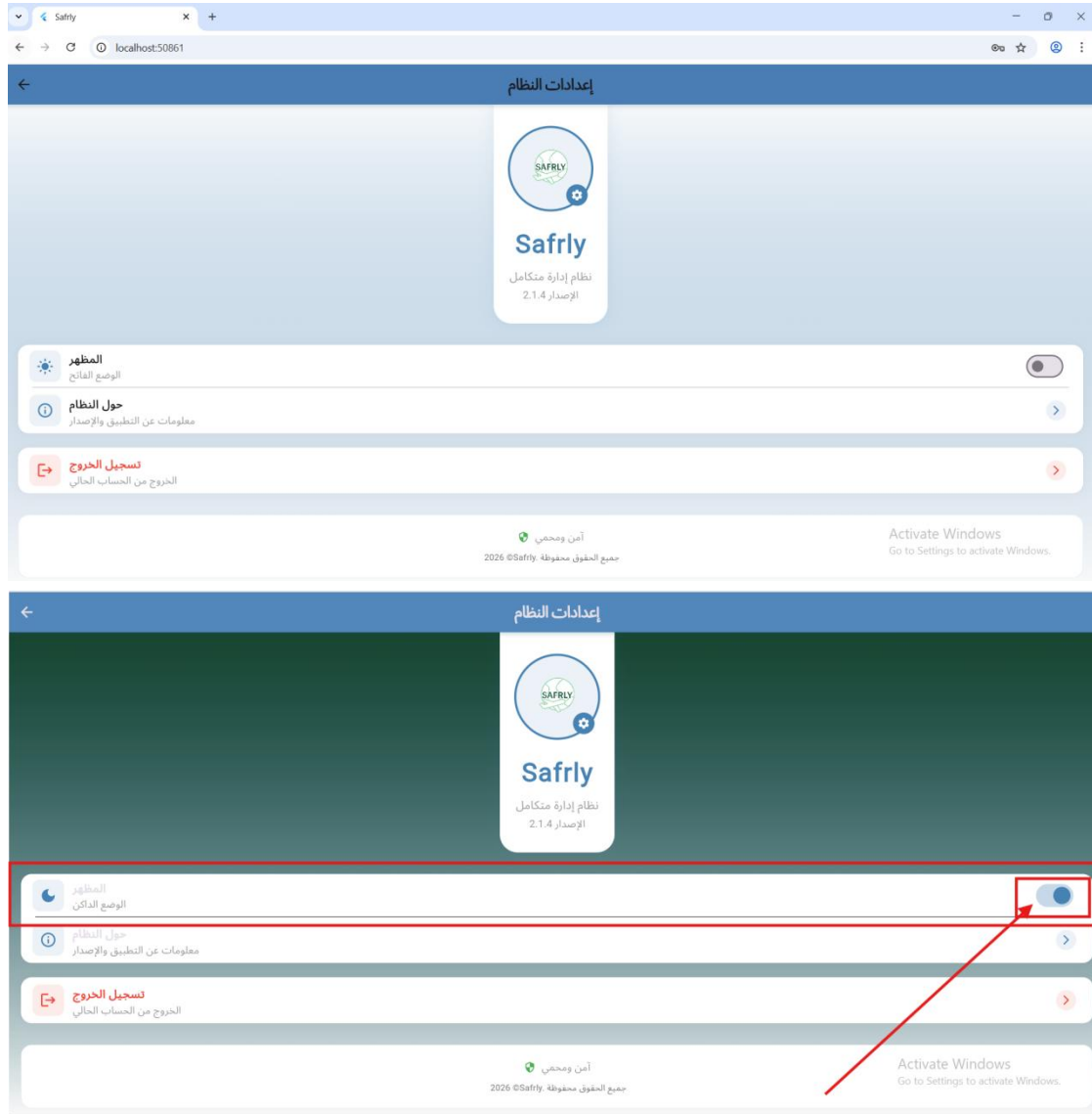


Figure 93 System Settings Page

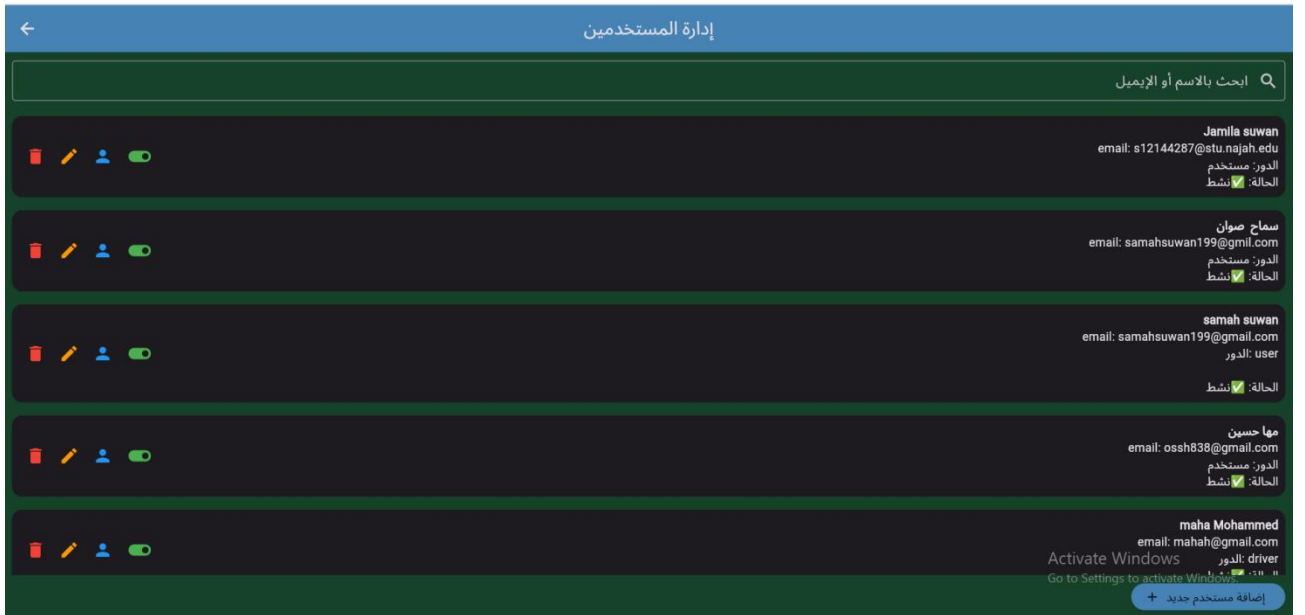
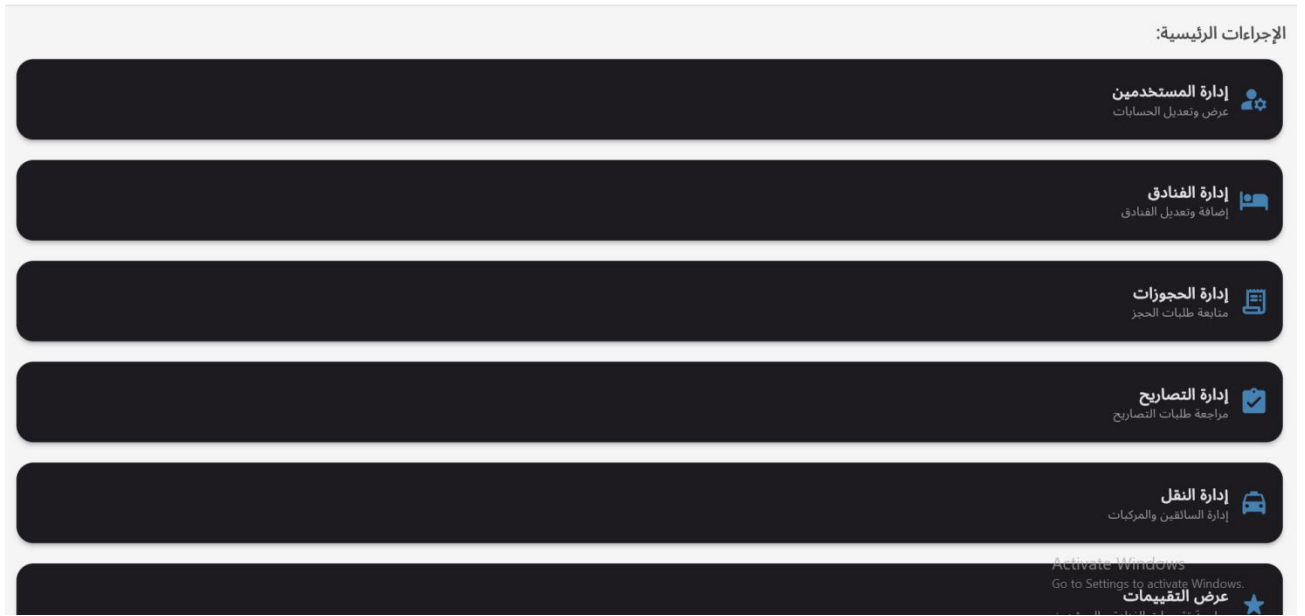


Figure 94 System Settings Page



Figure 95 System Settings Page

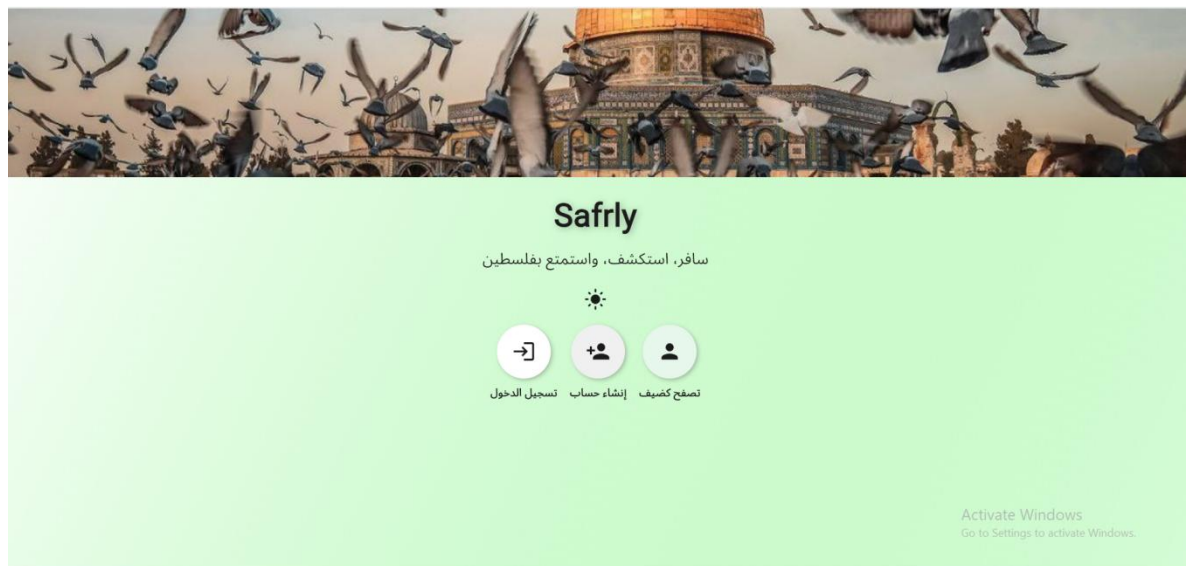


Figure 96 System Settings Page

5 Results

This project represents an integrated tourism system that provides users with a comprehensive and easy experience for planning their trips. The system allows users to select the city they wish to visit and browse hotels based on star ratings, with the ability to view reviews and feedback from previous users, as well as see the exact location of each hotel.

Users can book a hotel and specify the number of nights they want to stay, where the application automatically calculates the total price based on the number of nights, while giving users full freedom to choose their preferred payment method.

The system also enables users to book a private tour guide by viewing suitable prices and the languages spoken by each guide. Users are free to choose their preferred payment method when completing the booking, all through a visually appealing and user-friendly interface. In addition, the system includes a simplified transport management feature that allows users to select a starting point and a destination. The shortest path is calculated using the **Dijkstra algorithm**, and the trip cost is calculated based on the price per kilometer according to the following formula:

Trip Cost = Distance × Price per Kilometer + Time.

Users are given full freedom to choose their preferred payment method, and available drivers are displayed so the user can select and book the driver they prefer. Users can also rate the system after using the services.

Moreover, the system provides a permit booking feature that allows users to enter all required and essential information, saving them time and effort, while also allowing them to choose their preferred payment method.

In addition, the system offers a dedicated offers page that helps users save money by selecting a complete trip that includes a tour guide and a hotel, with multiple payment method options available and the possibility of choosing hotels from the highest classifications.

Overall, the system successfully achieves its goal of delivering a fully integrated tourism solution that meets user needs efficiently and conveniently.

6 Discussion

Safrly is a comprehensive tourism application designed to meet all tourists' needs in one place.

The application provides multiple services, including hotel booking, tour guide booking, and driver booking for transportation.

In addition, it allows users to request permits when needed to enter the occupied Palestinian territories, such as Jerusalem, the capital of Palestine. The application also enables users to benefit from special offers that combine hotels and tour guides, helping them save time, effort, and cost while easily organizing a complete trip.

Through the development of this project, we gained many new skills, such as mobile application development, designing effective user interfaces, and integrating front-end interfaces with databases and backend systems.

Moreover, the project helped us improve our teamwork, problem-solving, and self-learning skills.

This experience enhanced our practical understanding of how to build real-world systems that efficiently and securely meet users' needs.

7 Conclusion:

At the end of this project, we successfully developed a comprehensive and user-friendly tourism application that allows users to explore tourist sites, book hotels, tour guides, and permits, in addition to effectively managing transportation services and driver bookings.

The application also includes a currency converter to help users easily handle different currencies. The app was built using the **Flutter** framework and the **Dart** programming language.

We used **MySQL** as the database to manage information in an organized and efficient manner.

The application has proven its ability to meet tourists' needs by providing multiple booking services that facilitate easy trip planning.

Future Work:

- 1-Develop a map for each hotel that enables users to track the route to the hotel similarly to Google Maps.
- 2-Create dedicated routes for popular tourist sites in Palestine, such as Wadi Al-Qilt in Jericho, and display them within the application.
- 3-Enhance the transportation service by adding new features such as choosing between individual or shared trips and assigning specific prices for each service.
- 4-Expand the transportation service coverage to include travel between villages and camps, not only between cities.

8 References

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