

An-Najah National University Facultuty of Engineering Department of Computer Engineering

Customizable Service Provider Platform

Accomplished by:
Shahd Lubbadeh
Yaqout Salameh

Supervisor: Anas Toma

Presented in partial fulfilment of the requirements for Bachelor degree in Computer Engineering

Jan 29, 2024

Acknowledgment

We would like to express our sincere gratitude to all those who have contributed to the successful completion of this project.

First and foremost, we extend our deepest thanks to our supervisor, Anas Toma, for his guidance, support, and valuable insights throughout the entire project. His expertise and encouragement played a pivotal role in shaping the project's direction and outcomes.

Special thanks go to our families and friends for their unwavering encouragement and understanding during the challenges and joys of this endeavor.

Finally, we appreciate the collaborative efforts of our fellow students and colleagues who provided valuable feedback and shared their experiences, enriching the overall development process.

Thank you to everyone who has been a part of this journey, contributing to the successful completion of this project.

Disclaimer

This report was written by students Yaqout Salameh and Shahd Lubbadeh at the Computer Engineering Department, Faculty of Engineering, An-Najah National University. It has not been altered or corrected, other than editorial corrections, as a result of assessment and it may contain language as well as content errors. The views expressed in it together with any outcomes and recommendations are solely those of the students. An-Najah National University accepts no responsibility or liability for the consequences of this report being used for a purpose other than the purpose for which it was commissioned.

Contents

1	Inti	roduction	7
	1.1	General Background	7
	1.2	Objectives	7
	1.3	Significance	7
	1.4	Organization of the Report	8
2	The	eoretical Background and Previous Work	ç
	2.1	Theoretical Background	Ć
		2.1.1 Service Management	Ć
		2.1.2 Digital Platforms	Ć
		2.1.3 User Experience Design	Ć
	2.2	Previous Work	10
3	Me	thodology	11
	3.1	Standards and Specifications	11
	3.2	Constraints	13
	3.3	User Interface Overview	14
		3.3.1 Mobile	14
		3.3.2 Web	40
4	Res	sults and Discussion	60
	4.1	Functionality and User Experience	60
	4.2	Anticipated Impact on Service Providers	
	4.3	Anticipated Impact on Clients	
	4.4	Integrating Features from Existing Platforms	
	4.5	Discussion	
5	Cor	nclusion	62
	5.1	Summary	62
	5.2	Recommendations for Improvement	
	5.3	Lessons Learned	
	5.4	Future Work and Directions	
	5.5		

List of Figures

3.1	Swagger documentation	12
3.2	Landing screen for the app	14
3.3	Getting started Screens	15
3.4	Log In screen	15
3.5	Customer Sign Up Screens	16
3.6		17
3.7		18
3.8	Side Navbar	19
3.9	Request Details Screen	19
3.10	Different status for request with different action for each	20
3.11	Searching Requests	21
3.12	Filtering Requests	21
3.13	Calendar View for worker appointments	22
3.14		23
3.15	Services Screen	24
3.16	choosing category for the new service	25
3.17	Add service general details	26
3.18	Adding service options	27
3.19	Adding service required details from the customer	28
	O 11	29
3.21	Adding the service successfully	30
3.22	Customer Home Screen	31
3.23	Search Page	32
3.24	Search Filters First Example	32
3.25		33
3.26	Fisrt Example Service Details	33
3.27	Second Example Service Details	34
3.28	Booking initial details page	35
3.29		36
		37
3.31	Successful Booking	37
	Booking a service that doesn't have details, will directly start on step	
		38
3.33	Booking service of consultation mode, customer don't have the option	
	to select date and time	38

	Customer request history	39
3.35	submitting feedback for done requests	39
3.36	Website Main Page	40
3.37	Log in page	41
	choose Registration type	41
3.39	Customer Registration	42
3.40	Employee Registration	42
3.41	Company Registration	43
	Search page	44
	Service Details Page	45
3.44	Select Date and time	46
	Fill other required details	46
3.46	Confirm Booking	47
	Service History	48
	Account Info	48
	Update Account Info	49
	Company overview page	49
3.51	Company calendar	50
3.52	Company requests	50
	Request filtering funcionality	51
	Technical support request	52
	Training session request	53
	Company's employees Page	54
	Categories Page	54
	Add new category dialog	55
3.59	Category page (allow update/ delete)	56
	Categories' services page	56
3.61	Add new service dialog	57
3.62	Company account page	58
	Supplies page	58
3.64	Add new supply dialog	59

Abstract

The Customizable Service Provider Platform is a versatile solution comprising a mobile application and a website tailored to empower a wide range of service providers, whether they are established companies or individual freelancers. This project aims to streamline the service request process for clients and enhance efficiency for service providers, addressing complexities across various domains such as homecare, gardening, electrical services, maintenance, and more. The platform integrates features from existing platforms, offering a unified and highly customizable space for service providers to personalize their offerings. Noteworthy functionalities include service categorization, pricing, and request management for providers, along with a straightforward booking process for customers. The application facilitates communication through a notification system and chat functionality. Different user types enjoy varying privileges, with administrators having full control over customization. The platform's significance lies in its ability to cater to the diverse needs of service providers and clients in a unified manner, acknowledging the varied structures of service providers, be they companies or freelancers. With a focus on customization and efficiency, the project responds to market demands for a comprehensive, adaptable service provider solution that accommodates the nuances of different organizational types. The platform is developed using modern tools and technologies. React was used for web front-end development, React Native for mobile app development, and Spring Boot for the robust back-end infrastructure.

Chapter 1

Introduction

1.1 General Background

In an era where service provision spans various domains, the Customizable Service Provider Platform emerges as a comprehensive solution, addressing the complexities faced by both service providers and clients. Challenges in service customization, scheduling, and communication are common across diverse sectors, from healthcare to household maintenance. The platform offers a one-stop solution, unifying the management of various service offerings, and meeting the needs of both companies and freelancers.

1.2 Objectives

The primary goal of this project is to simplify and enhance the service-seeking experience for clients while optimizing organizational processes for service providers, whether they are established companies or individual freelancers. Specific objectives include improving the service requesting process and management, increasing customer satisfaction, and providing service providers, regardless of their organizational structure, with a unique, customizable space. By integrating features from popular platforms, the project aims to foster efficiency and personalized service delivery for a diverse array of service providers.

1.3 Significance

This platform's significance lies in its ability to cater to the diverse needs of service providers and clients in a unified manner, acknowledging the varied structures of service providers, be they companies or freelancers. With a focus on customization and efficiency, the project responds to market demands for a comprehensive, adaptable service provider solution that accommodates the specific details of different organizational types. The integration of modern technologies ensures scalability, positioning the platform as a cutting-edge solution for a wide range of service providers.

1.4 Organization of the Report

The report is structured to provide a comprehensive understanding of the Customizable Service Provider Platform. Following this introduction, chapter 2 delves into the theoretical background and previous work, setting the foundation for the project. Chapter 3 outlines the methodology employed in developing the platform. Chapter 4 presents results and discussions, offering insights into the project's outcomes. Chapter 5 combines conclusions and recommendations, providing a holistic overview of the project journey.

Chapter 2

Theoretical Background and Previous Work

2.1 Theoretical Background

2.1.1 Service Management

Service management encompasses a range of strategies and practices aimed at delivering high-quality services efficiently. Key concepts include service categorization, pricing strategies, appointment scheduling, and customer feedback mechanisms. By integrating these principles, service providers can enhance operational efficiency and improve customer satisfaction.

2.1.2 Digital Platforms

The spread of digital platforms has transformed the way services are delivered and accessed. These platforms facilitate seamless interactions between service providers and clients, offering features such as real-time booking and personalized user experiences. Understanding the dynamics of digital platforms is crucial for designing effective solutions that meet the evolving needs of users.

2.1.3 User Experience Design

User experience (UX) design focuses on creating intuitive and engaging interfaces that optimize user interactions with digital products and services. Principles of UX design, such as usability, accessibility, and visual hierarchy, play a significant role in shaping the overall user experience of the Customizable Service Provider Platform. User-centric design principles revolve around creating products, services, or interfaces with the end user in mind. The primary goal is to ensure a positive and satisfying user experience. By prioritizing user-centric design principles, the platform aims to enhance user satisfaction and engagement.

2.2 Previous Work

Previous development efforts have explored various aspects of service management platforms and digital solutions for service providers. While existing platforms offer valuable insights and functionalities, they often lack the flexibility and customization options required to meet the diverse needs of service providers across different industries.

Service-oriented businesses face challenges and opportunities when it comes to scheduling services, allocating resources, and managing customer relationships. We've noticed hurdles in existing platforms, particularly in terms of flexibility and customization. Many platforms struggle to accommodate the diverse requirements of service providers across different industries. Gaps in functionality and user experience have been recognized as areas that need attention in the development of future solutions.

Additionally, previous work has highlighted the importance of scalability and data privacy in the context of digital service platforms. As the demand for online services continues to grow, ensuring robust infrastructure is essential for building trust and reliability among users.

While various platforms excel in specific functionalities, the integration of features from existing platforms has been a less-explored area. The Customizable Service Provider Platform distinguishes itself by offering a unified space where service providers can personalize their offerings, drawing inspiration from successful features across different platforms.

By building upon the lessons learned from previous works and addressing identified gaps, the Customizable Service Provider Platform aims to provide a comprehensive solution that empowers service providers and enhances the overall service-seeking experience for clients.

Chapter 3

Methodology

In this chapter, we dive into more details about the implementation of the solution for the previously described problem, discussing the work we've done to deliver the final value to various stakeholders that will benefit from this platform namely: companies, company employees, self-employed individuals, customers, and system admin. In addition, a comprehensive overview of different technologies and tools utilized throughout the development process, and the user interface for both mobile and web platforms will be provided.

3.1 Standards and Specifications

In the development of the Customizable Service Provider Platform, a selection of powerful tools and frameworks ensured robustness, efficiency, and scalability, aligning with established standards and specifications. Here is a highlight of the key tools and their roles in adhering to industry standards:

1. Programming Languages and Frameworks:

- Front-end Development: React facilitated the creation of dynamic user interfaces.
- Mobile App Development: React Native enabled cross-platform mobile app development for a unified user experience.
- Back-end Infrastructure: Spring Boot prioritized convention over configuration for efficient application development.

2. Integrated Development Environments (IDEs) and Tools:

- **IDEs:** *VScode* and *IntelliJ* provided feature-rich environments for seamless coding and debugging.
- Containerization: *Docker* ensured consistent deployment across diverse environments.

3. Version Control and Deployment:

- Version Control: GitHub streamlined collaborative development and effective code management.
- **Deployment Workflows:** GitHub Actions automated deployment workflows for efficient releases.

4. API Development and Documentation:

- **API Development:** Swagger standardized API interfaces for improved usability.
- **Documentation:** Postman and Swagger offered comprehensive documentation for transparent API insights.

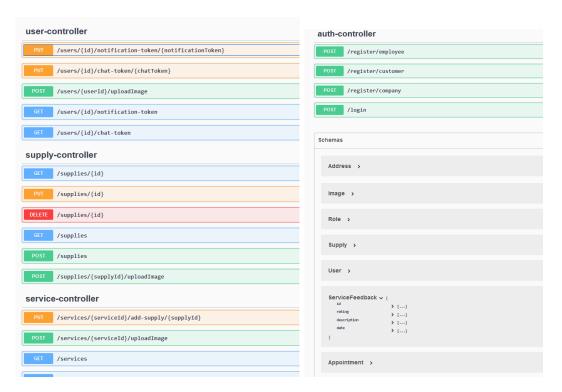


Figure 3.1: Swagger documentation

5. Database Management:

- Database System: MySQL served as a reliable relational database management system.
- Cloud Deployment: AWS RDS ensured security, automated backups, and scalability for the MySQL database.

6. User Interface (UI) Enhancements:

• Search Functionality: Algolia provided instant search capabilities for quick and efficient user experiences.

• Calendar Integration: FullCalendar seamlessly integrated calendar features for effective service scheduling.

7. Real-time Communication and Notifications:

• **Firebase:** Firebase was integrated for real-time chat and notification functionalities, enhancing user engagement.

These aspects underscore its value and importance in aligning with industry standards and specifications. The utilization of Swagger for API development and documentation, coupled with deployment on $AWS\ RDS$, demonstrates a dedication to transparency, reliability, and scalability – foundational elements of the Platform.

3.2 Constraints

• Free Tier AWS Plan: We encountered constraints during the project, particularly in the hosting of our backend server, which runs in a Docker container on an EC2 instance, and the deployment of our database to AWS RDS. These limitations were attributed to the selection of services eligible for the AWS free tier.

3.3 User Interface Overview

3.3.1 Mobile

In this section, we explore our mobile interface, focusing on user-friendly design. We aim to ensure a seamless experience for customers to search and book services that fit their needs.

General Screens

• Main Landing Screen

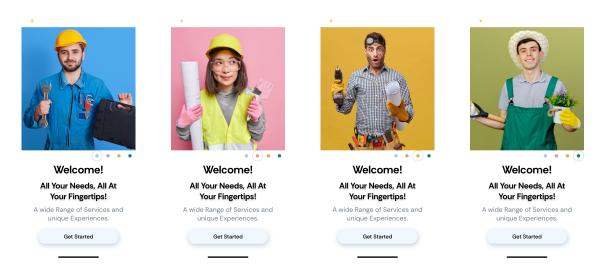


Figure 3.2: Landing screen for the app

• User can choose to log in or create a new account as a customer or worker.

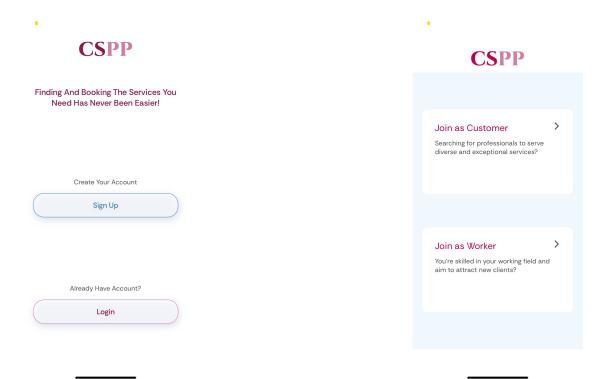


Figure 3.3: Getting started Screens

• Log In screen, user inputs are validated before sending to server.

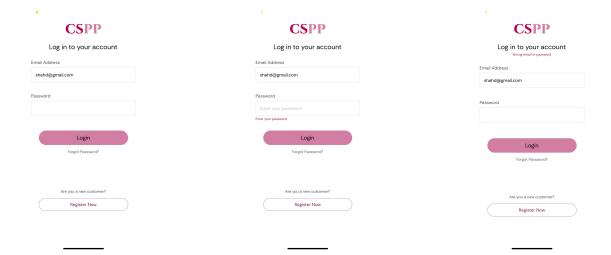


Figure 3.4: Log In screen

• Customer Sign Up pages

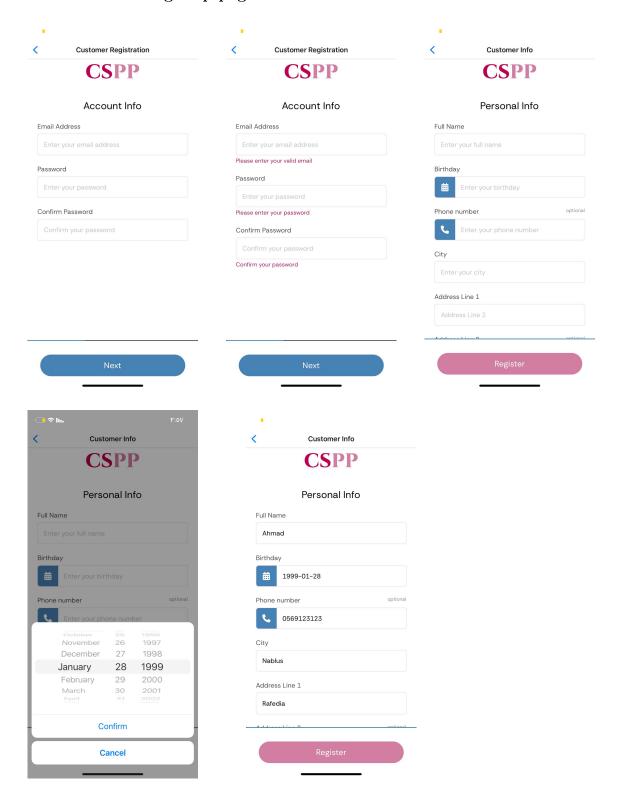


Figure 3.5: Customer Sign Up Screens

• Worker can sign up as a self-employed individual and have the full potential to add services of his own and accept customer requests and complete them, or register as a company employee and his company admin will be the one responsible for assigning customer requests to him.

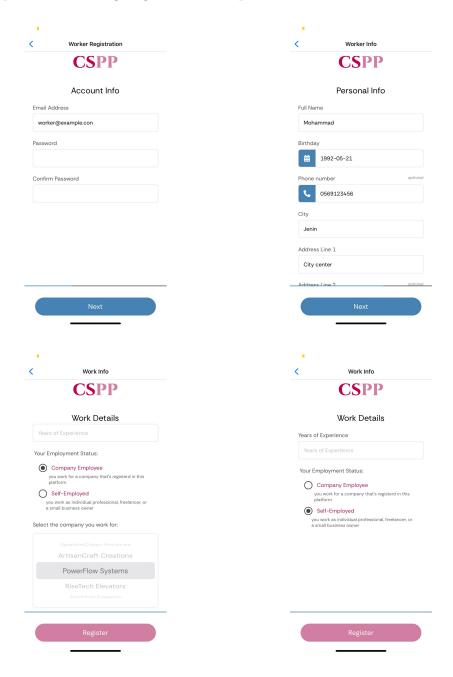


Figure 3.6: Worker Sign Up Screens

Worker Screens

• Worker Home Screen: worker can obtain quick access to new requests from customers if he self employed, or requests assigned to him by his company if he is a company employee. Additionally, the home screen displays today's schedule, including upcoming bookings to enable workers to efficiently organize and never forget about any booking, when press any of these requests a screen with full details will be displayed.

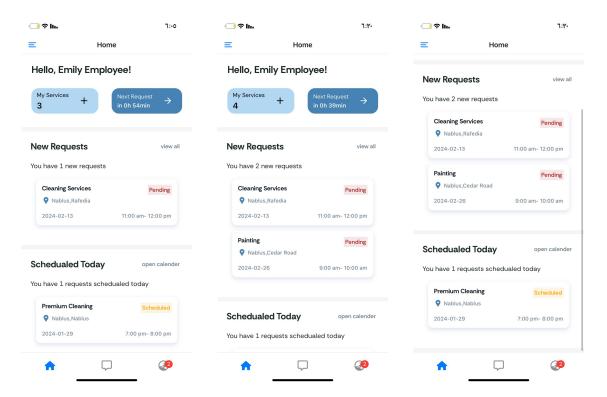


Figure 3.7: Worker Home Screen

• Side NavBar to navigate through different pages of the app.

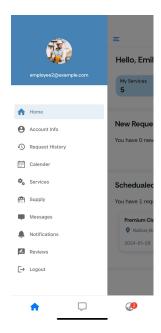


Figure 3.8: Side Navbar

• Request Details Page: with full information about the appointment, status, location and the customer who order this request, with the customer choices and preferences.

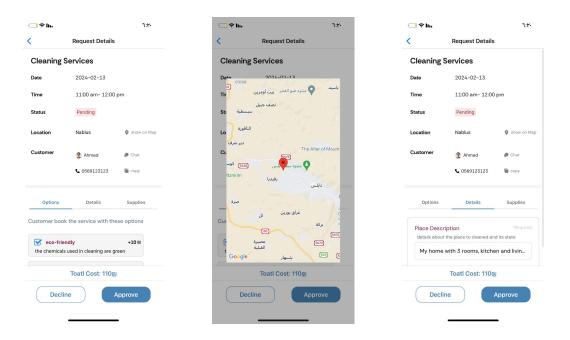


Figure 3.9: Request Details Screen

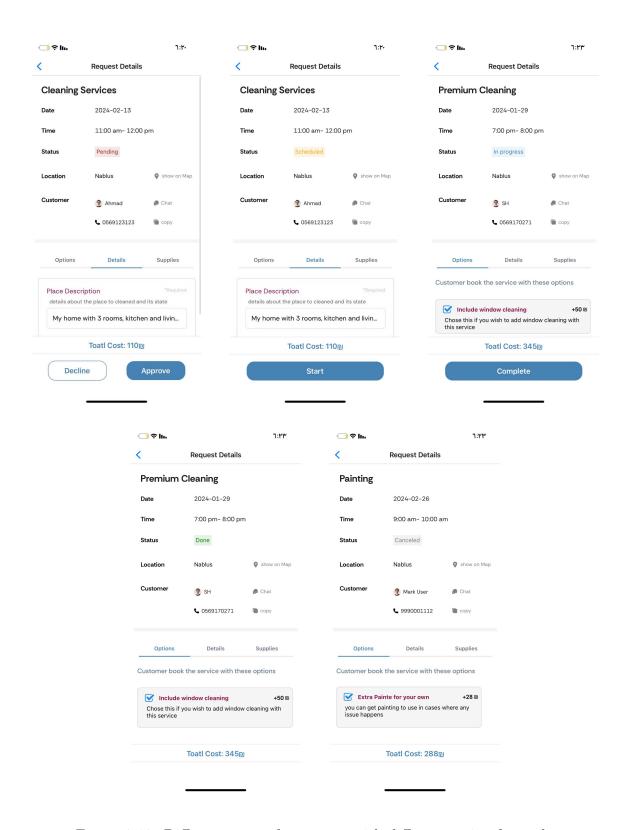


Figure 3.10: Different status for request with different action for each.

• Request History page: where worker can see full history of all requests, worker can search for a certain request by service name, customer name or email, and also can filter requests according to their status.

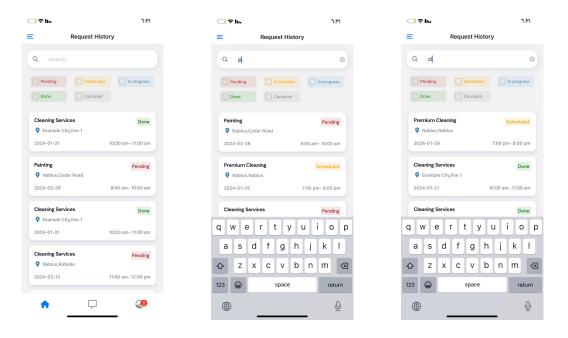


Figure 3.11: Searching Requests

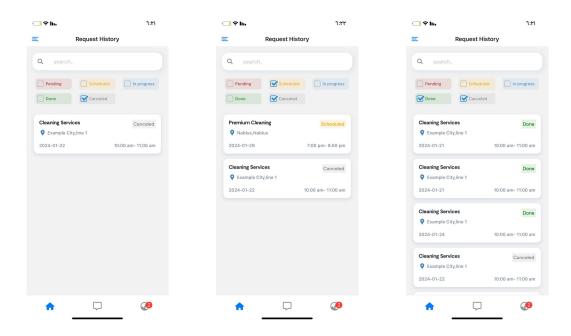


Figure 3.12: Filtering Requests

• Worker Schedule: offering workers a clear overview of their upcoming requests and appointments to never miss any booking, when clicking on any appointment, additional details will appear.

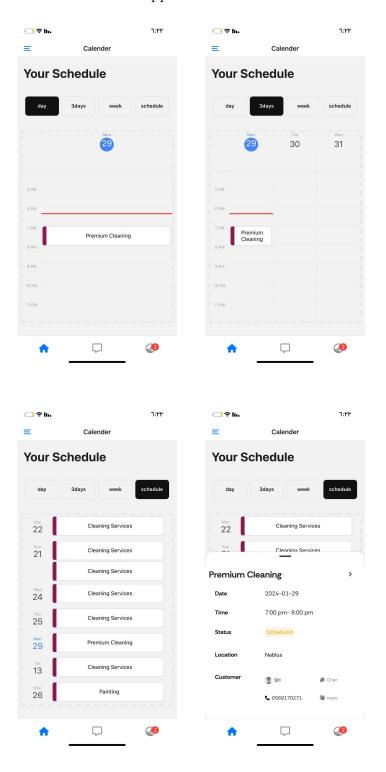


Figure 3.13: Calendar View for worker appointments

• Supplies: workers can add supplies to use in their services by assigning supplies to specific services they offer, enabling them to provide a comprehensive and specialized service, This enhances customization options for users by allowing them to choose whether to have specific supplies with their service requests. Additionally, This will increase transparency and clarity in service offerings.

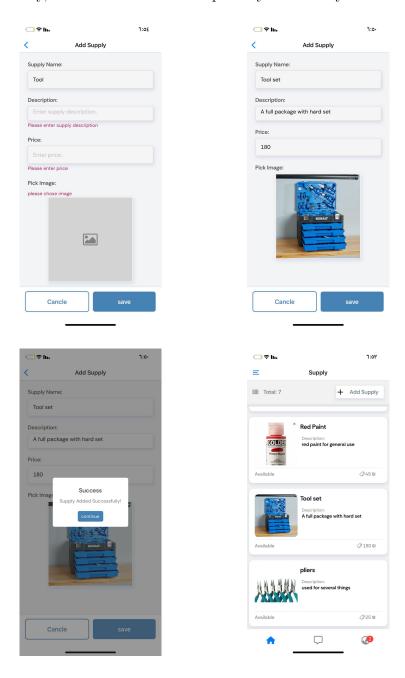


Figure 3.14: add supply page and Supplies

• Services: self-employed workers can add their own services, while company employees' services are assigned to them by their company, both types of workers can see their services with a few insights about each service.

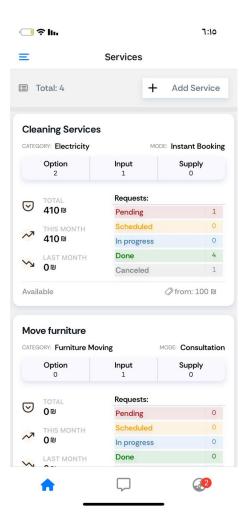


Figure 3.15: Services Screen

for self-employed workers and after clicking on add service button the process of adding a service follows these steps:

1. Chose Category

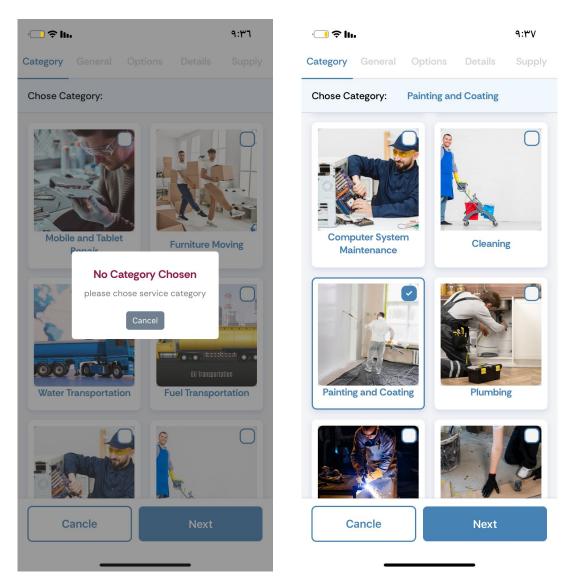


Figure 3.16: choosing category for the new service

2. Enter General Details: in this step worker will set the general details about the service, we have 2 modes for services, the first one is instant booking where customers have the ability to specify their preferred date and time for bookings. The availability of time slots is aligned with the worker's schedule and existing appointments, ensuring no conflicts arise with other bookings, the second is consultation mode where no prior appointment is specified by the user, instead, the worker will analyze customer request and provide the suitable appointment then get back to the customer with his offer and take his approval on it.

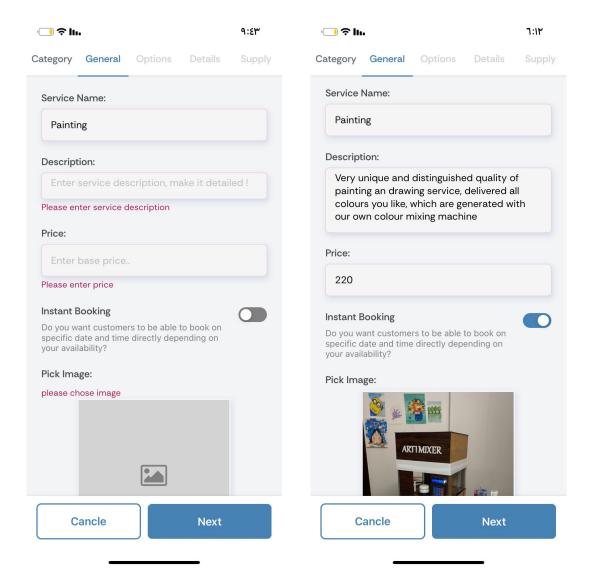


Figure 3.17: Add service general details

3. Add options and variants of the service: worker has the ability to deliver his service with multiple options to support more customization and involvement from the customer side where customer can chose to have the service with any option or options he likes.

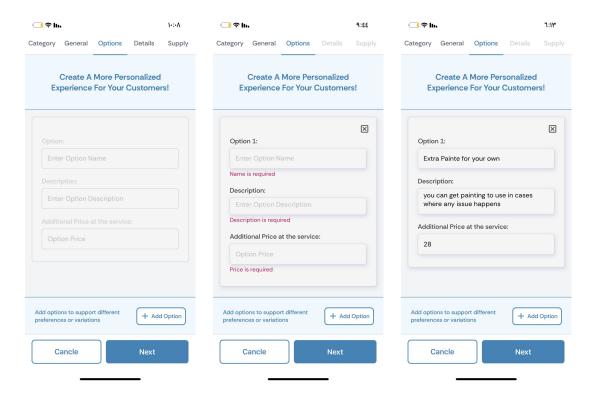


Figure 3.18: Adding service options

4. Add required details from the customer side: some service types require gathering more details about the circumstances or any relevant details that may affect how the service will be provided, the worker with his experience is the best one to tell what these details could be, and to make it easier for both customers and workers we enabled the worker to ask the customer about some details at booking time.

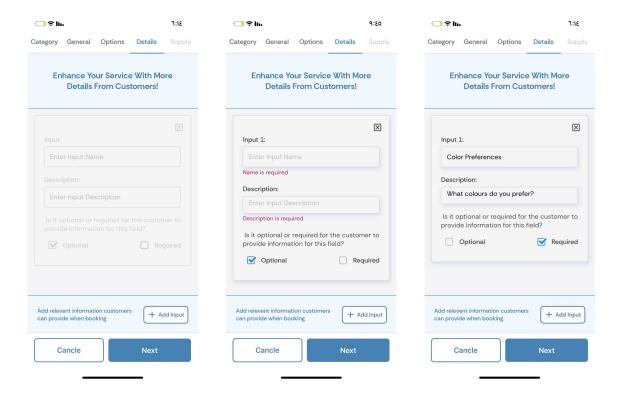


Figure 3.19: Adding service required details from the customer

5. Assign supplies to the service: worker can optionally assign supplies from his supplies list to the service, which means that these supplies are useful or needed for completing this service, and the customer can optionally have them with his booking.

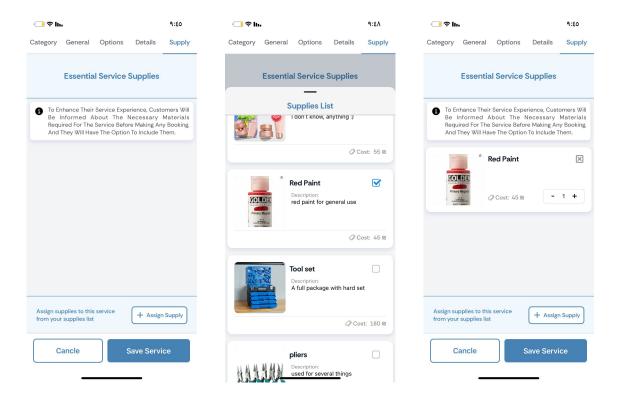


Figure 3.20: Assign supplies to the service

6. After completing the above steps the service will be created and become available for customers to book and see all the details the worker put on it.

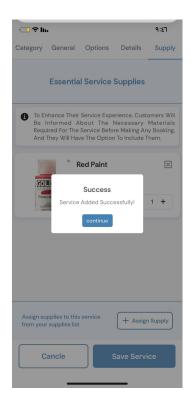


Figure 3.21: Adding the service successfully

Customer Screens

• Customer Home Screen

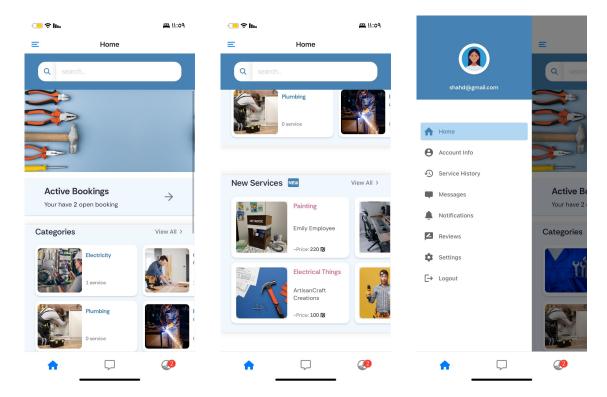


Figure 3.22: Customer Home Screen

• Search Experience: for customers finding what they need quickly is the key. A good search experience helps customers easily discover the services they're looking for, for that reason, we implement instant search and filters to make finding services easier for users. Instant search shows results as users type they can search by service name and description, While filters help them narrow down options quickly, they can filter by category, company, city, price, and service mode if it is instant booking or consultation.

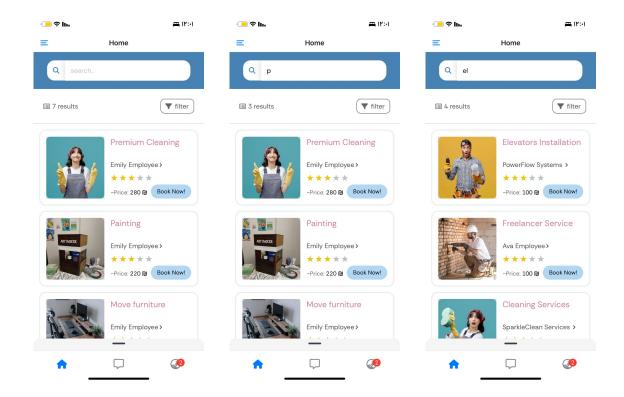


Figure 3.23: Search Page

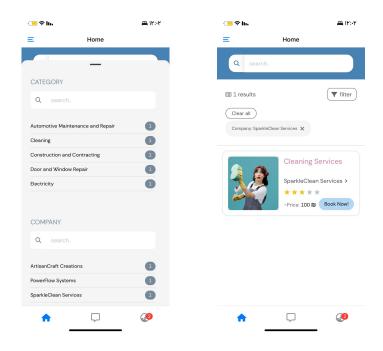


Figure 3.24: Search Filters First Example

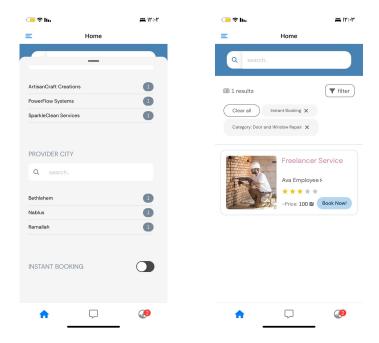


Figure 3.25: Search Filters Second Example

• Service Details Page: provides users with comprehensive information about each service before they book. This allows customers to explore various options from different providers and compare them to find the best fit for their needs. This creates a competitive environment among providers where customers benefit from improved offerings and choices.

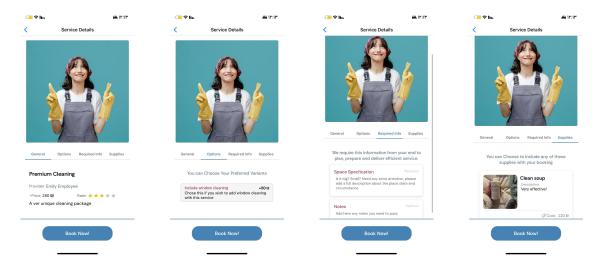


Figure 3.26: Fisrt Example Service Details

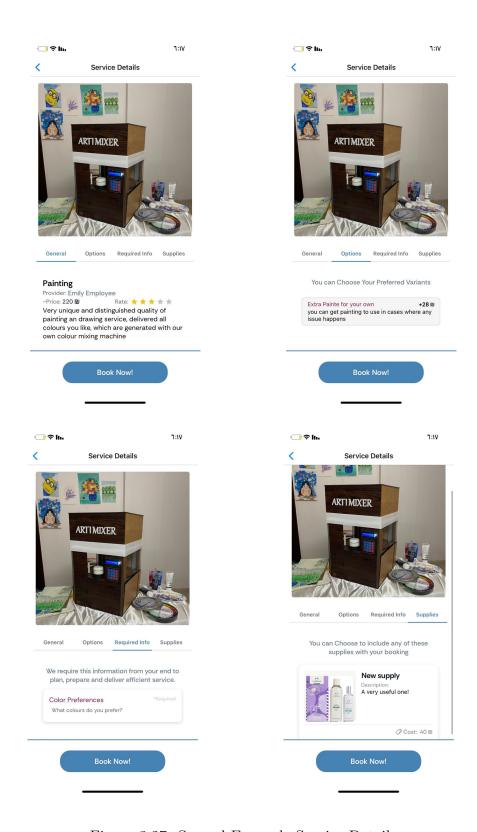


Figure 3.27: Second Example Service Details

When the customer finds the service that is most suitable for him and decides to book, he will go through some steps described below:

1. Custumization: at this step, the customer will choose between different options for the service, decide whether to have any supplies with it and enter the required details that the provider asks for, if no options, supplies, or required details with this service, customer will be directed to the next step at once.

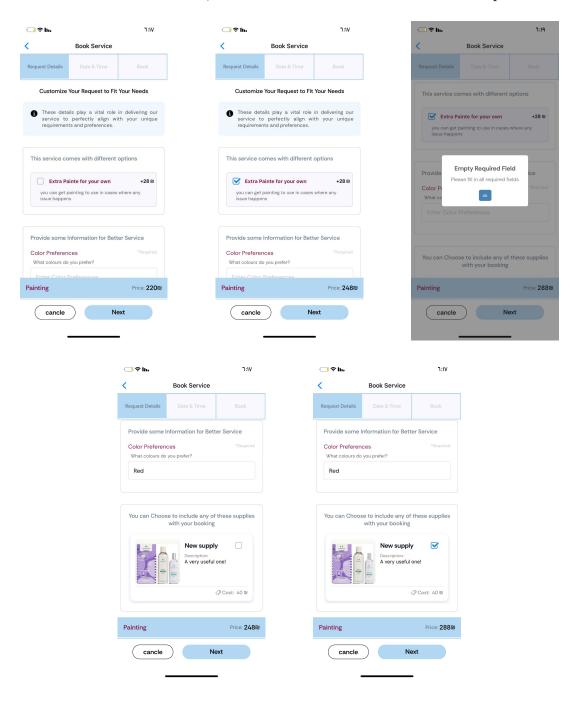


Figure 3.28: Booking initial details page

2. Chose Date and Time: this is only for instant booking services, for consultation services customer will book then the provider will send him the appointment and all other details.

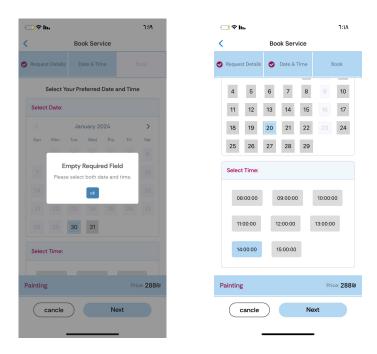


Figure 3.29: Select Date and Time

3. **Select Location:**this is the final step in the process where customer will enter the location where he needs the service, with his current location set as the default option, which they can then adjust as needed.

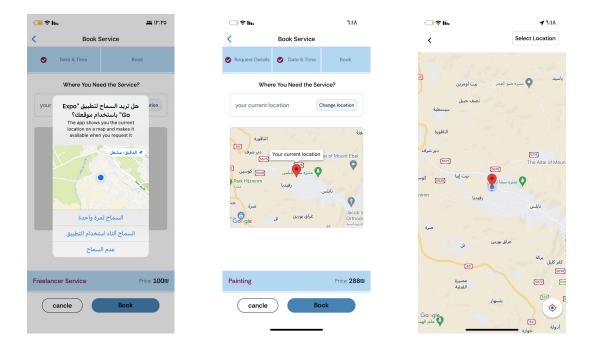


Figure 3.30: Select Location

4. After completing the previous steps customer can book the service successfully.

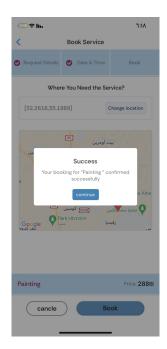


Figure 3.31: Successful Booking

• For different service options and modes, the booking pages and steps may vary.

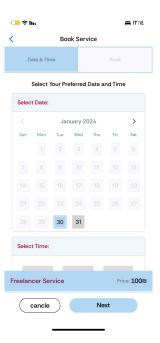


Figure 3.32: Booking a service that doesn't have details, will directly start on step 2.

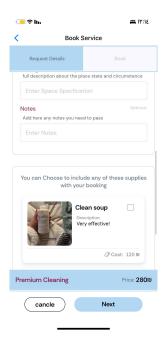


Figure 3.33: Booking service of consultation mode, customer don't have the option to select date and time.

• Request History: customer can see, search, and filter the full history of his booking

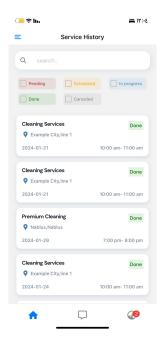


Figure 3.34: Customer request history

• Submit feedback: customer can send his feedback and rating for done requests.

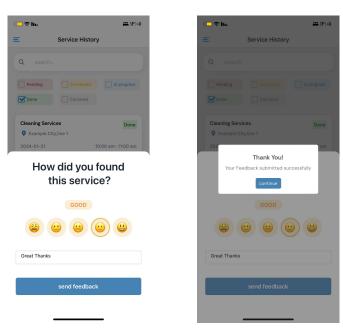


Figure 3.35: submitting feedback for done requests

3.3.2 Web

General Pages

• Main Page

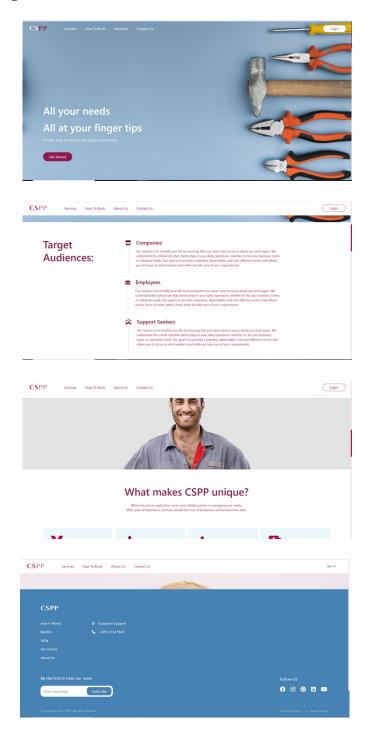


Figure 3.36: Website Main Page

• Log In Page

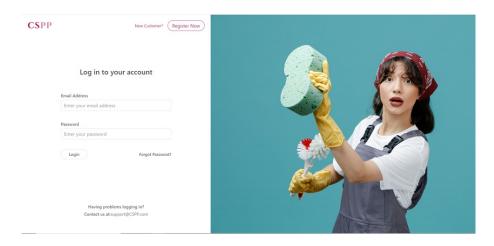


Figure 3.37: Log in page

• Register Pages

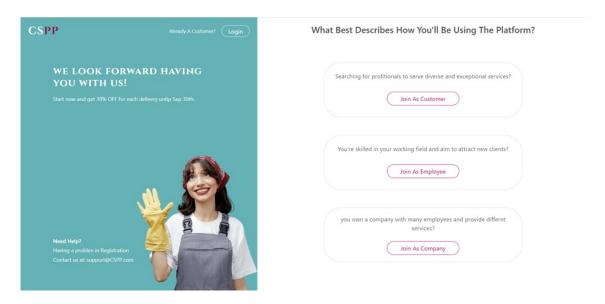


Figure 3.38: choose Registration type

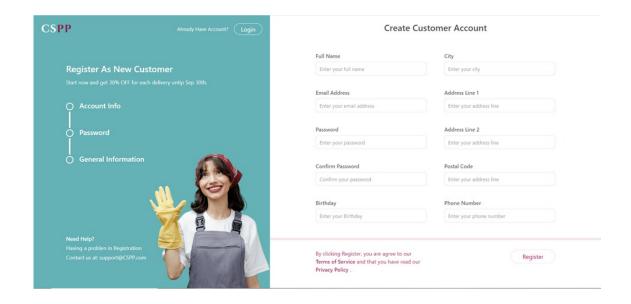


Figure 3.39: Customer Registration

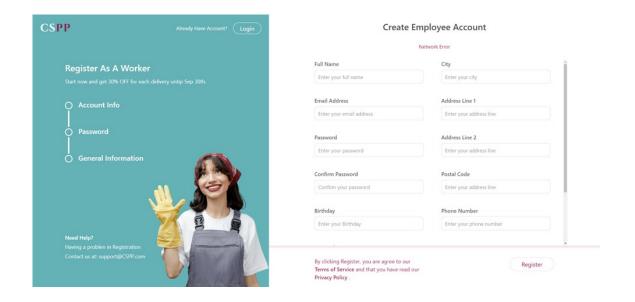


Figure 3.40: Employee Registration



Figure 3.41: Company Registration

Customer Pages

• Search Page

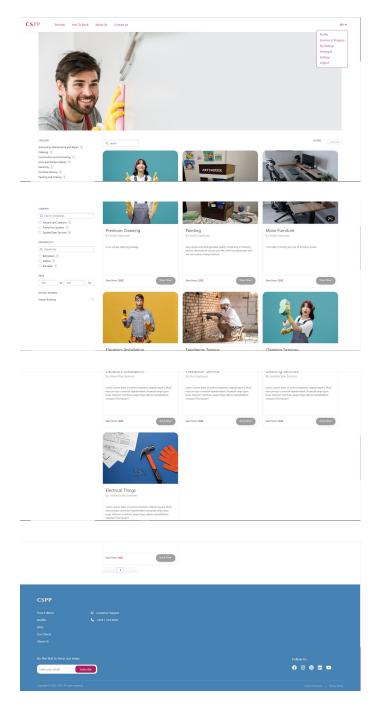


Figure 3.42: Search page

• Service Details Page

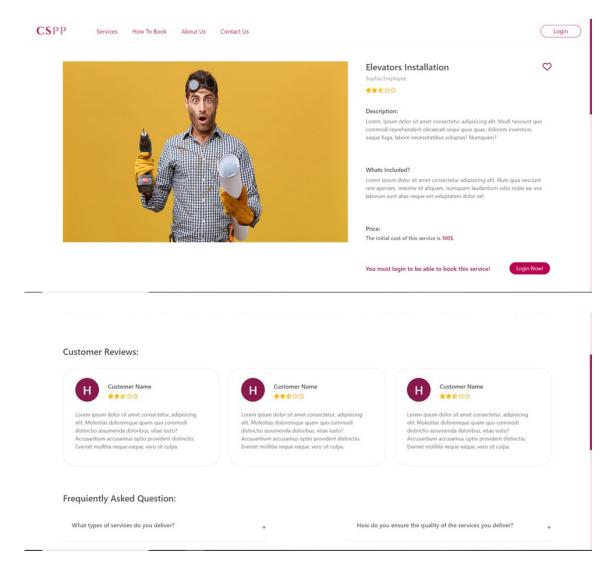


Figure 3.43: Service Details Page

• Service Booking

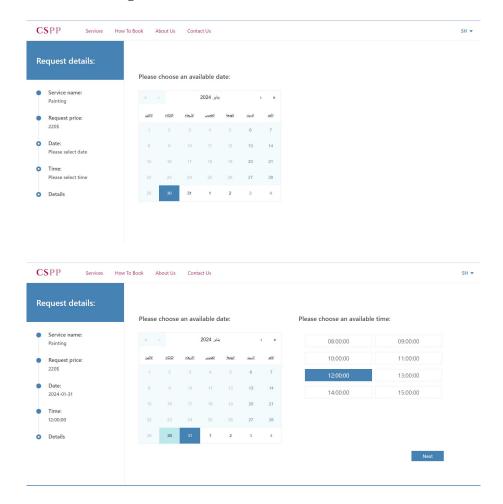


Figure 3.44: Select Date and time

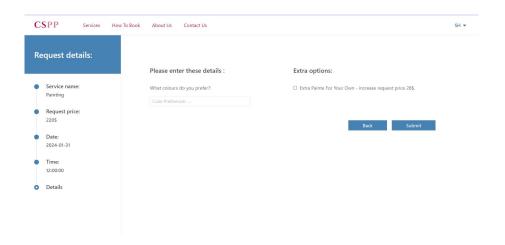


Figure 3.45: Fill other required details

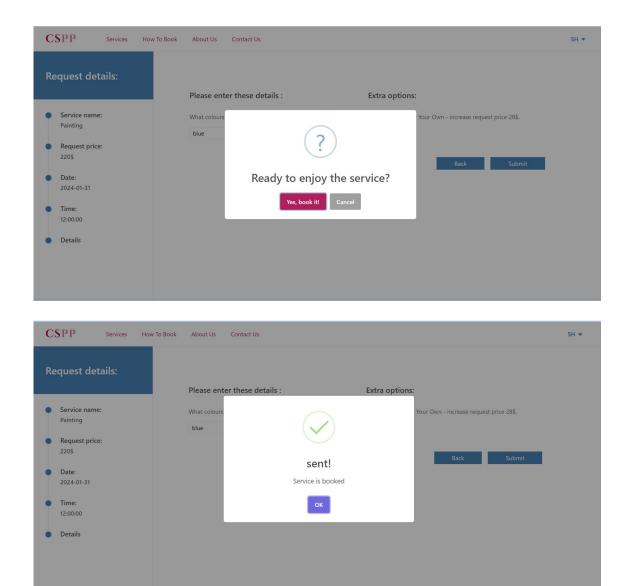


Figure 3.46: Confirm Booking

• Service History

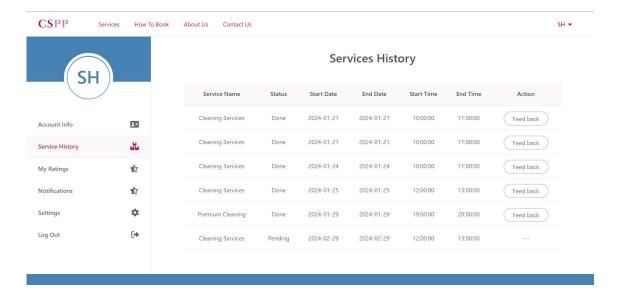


Figure 3.47: Service History

• Profile Page and Update details

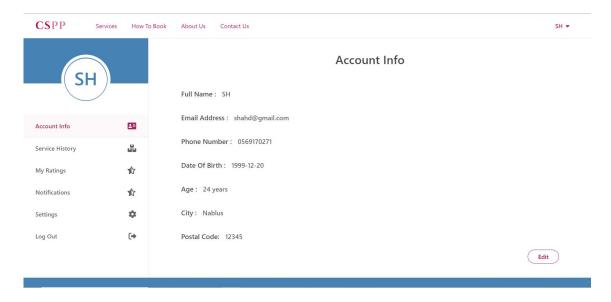


Figure 3.48: Account Info

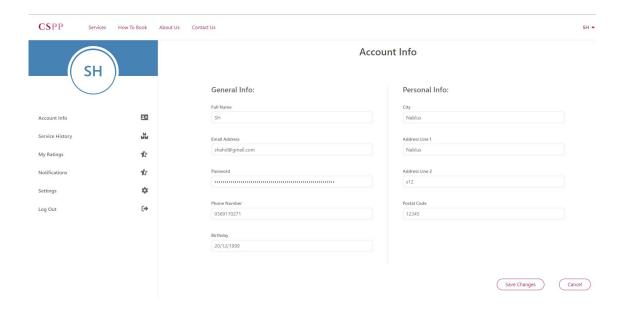


Figure 3.49: Update Account Info

Company Dashboard Pages

• Overview Page

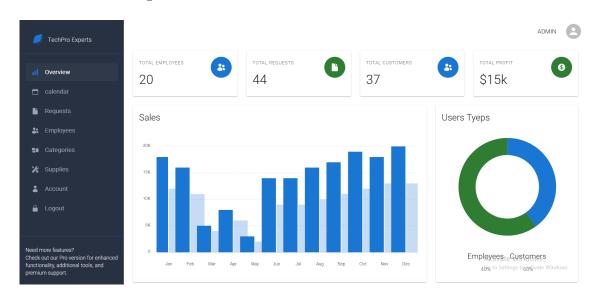


Figure 3.50: Company overview page

• Calendar

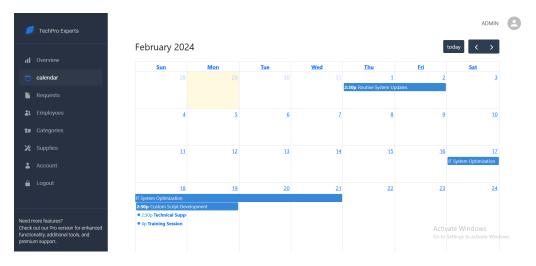


Figure 3.51: Company calendar

• All Requests Page

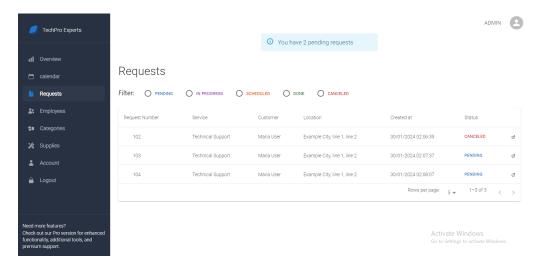


Figure 3.52: Company requests

• All Requests Page - Filtering

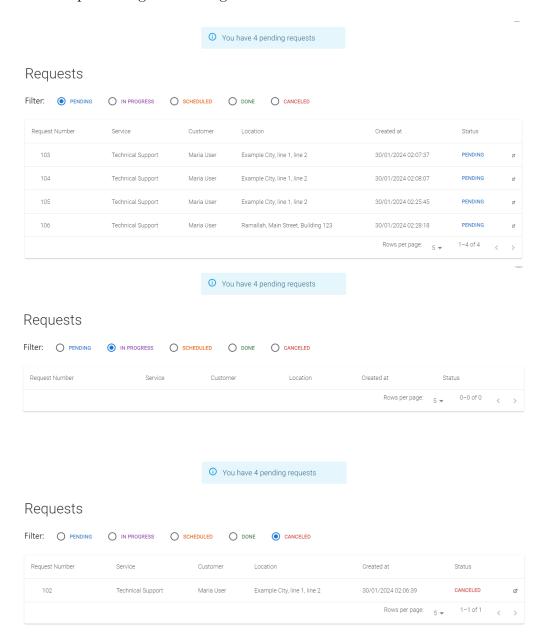


Figure 3.53: Request filtering funcionality

• Request Page (request for an instant booking service)

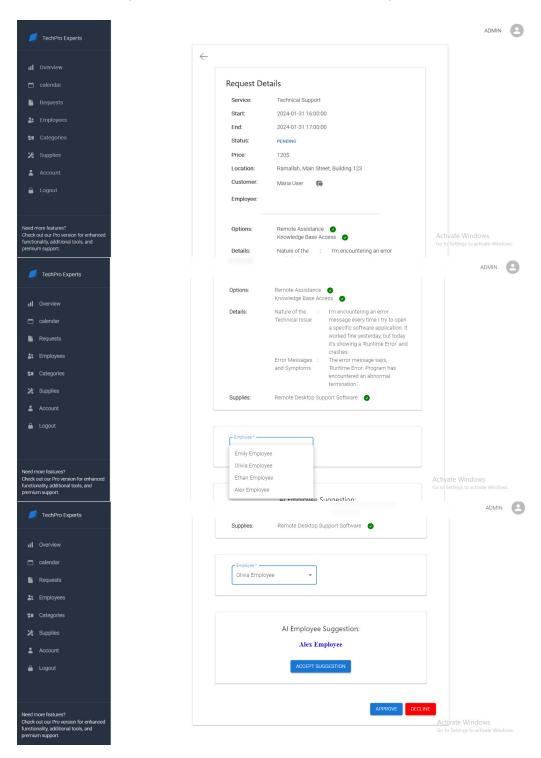


Figure 3.54: Technical support request

• Request Page (request for a consultation service)

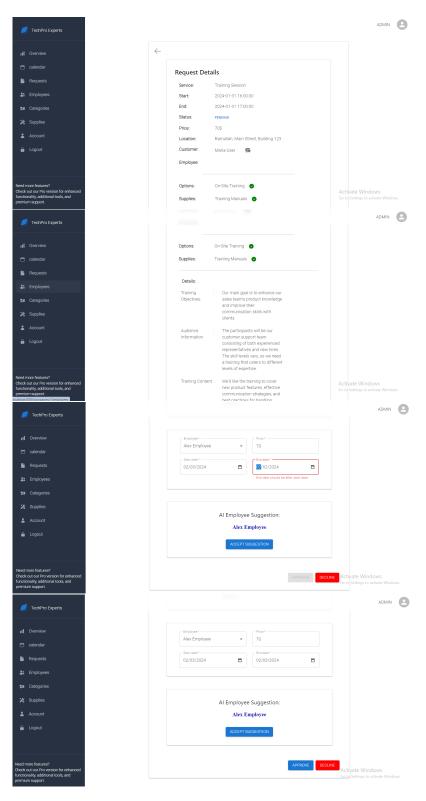


Figure 3.55: Training session request

• Employees Page

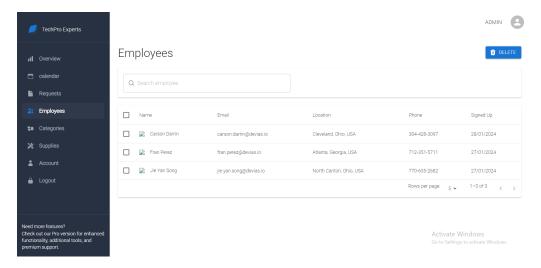


Figure 3.56: Company's employees Page

• All Categories Page

Clicking the add button opens a dialog to allow the admin to add a new category. Also, clicking on any category card allows the admin to view the associated services. Moreover, clicking on the edit button takes the admin to that category page, enabling him to update or delete the category.

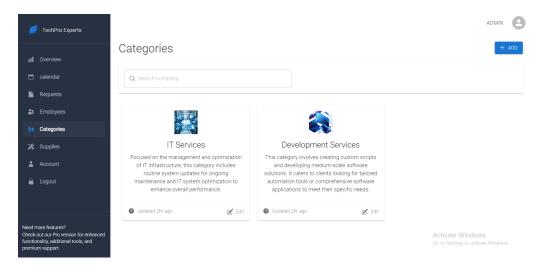


Figure 3.57: Categories Page

• Adding New Category

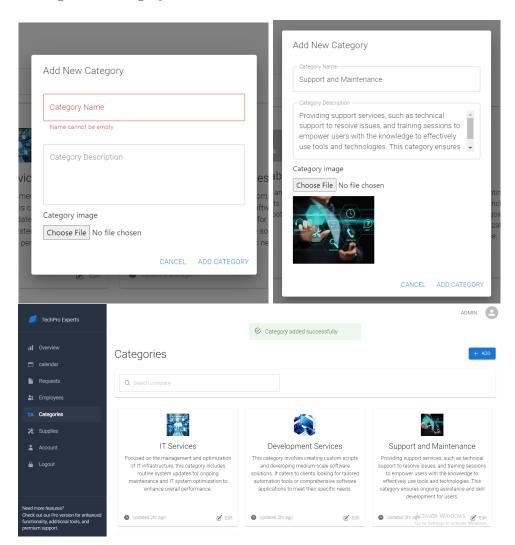


Figure 3.58: Add new category dialog

• Category Page
From this page, the company's admin can update or delete a specific category.

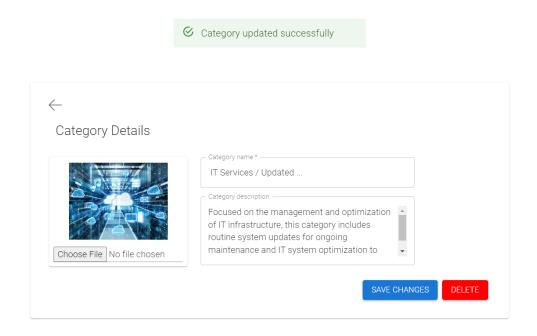


Figure 3.59: Category page (allow update/ delete)

• Categories' Services Page
Clicking the add button opens a dialog to allow the admin to add a new service.
Also, clicking on the edit button takes the admin to the service page, enabling him to update or delete the service.

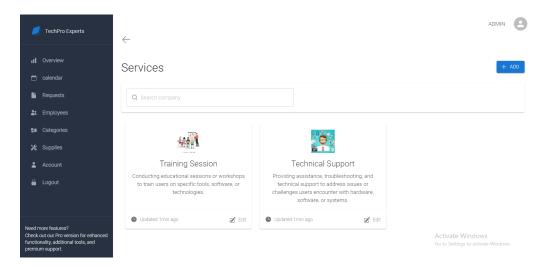


Figure 3.60: Categories' services page

• Adding New Service

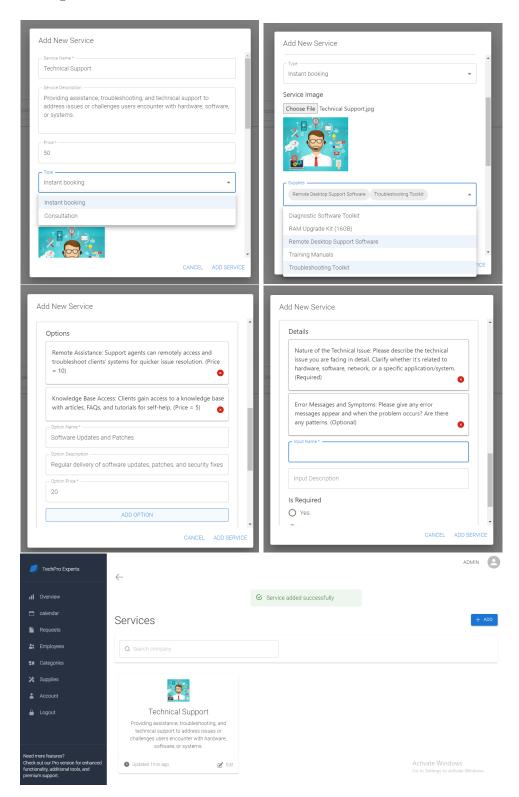


Figure 3.61: Add new service dialog

• Company Account

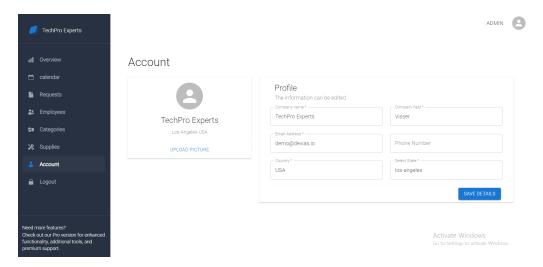


Figure 3.62: Company account page

• Supplies Page
Clicking the add button opens a dialog to allow the admin to add a new supply.
Also, clicking on the edit button takes the admin to the supply page, enabling him to update or delete the supply.

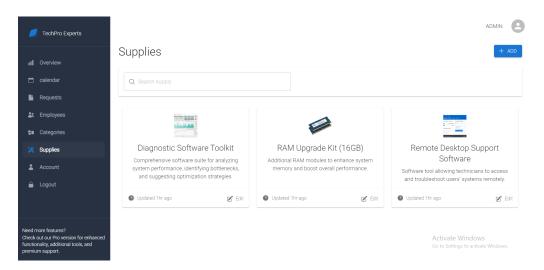


Figure 3.63: Supplies page

• Adding New Supply

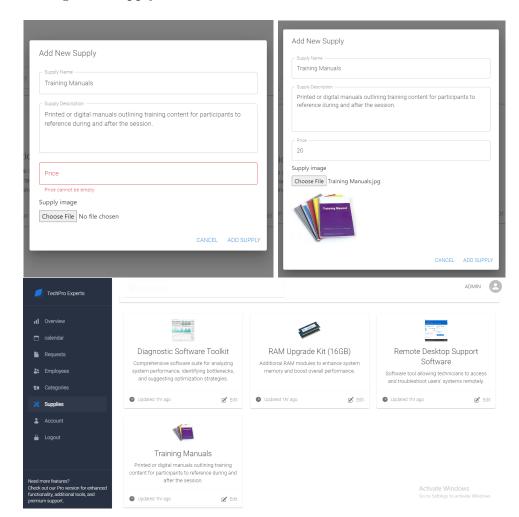


Figure 3.64: Add new supply dialog

Chapter 4

Results and Discussion

The development and implementation of the Customizable Service Provider Platform have demonstrated substantial advancements in functionality, user experience, and the potential impact on both service providers and clients.

4.1 Functionality and User Experience

The platform successfully incorporates key functionalities, such as service categorization, pricing management, and request handling. Service providers can efficiently organize and customize their offerings, while clients enjoy a user-friendly interface for service search, booking, and confirmation. The inclusion of a notification system and chat functionality enhances communication.

4.2 Anticipated Impact on Service Providers

While the platform has not yet been utilized by service providers, anticipated impacts include improved efficiency in managing client requests, streamlined organizational processes, and adaptable customization according to unique services offered.

4.3 Anticipated Impact on Clients

Despite the absence of direct user feedback, anticipated impacts on clients involve a straightforward service-seeking experience, intuitive booking, confirmation notifications, and post-service rating options. The user-centric design aims to enhance overall customer satisfaction.

4.4 Integrating Features from Existing Platforms

The successful integration of features from different platforms offers a promising foundation. The platform's versatility, allowing customization for various service domains, stands out as a notable feature.

4.5 Discussion

Although user feedback is currently unavailable, the platform's positive aspects, including adaptability, successful feature integration, and robust functionality, are highlighted. Challenges faced during development were effectively addressed, ensuring scalability and alignment with market demands.

Given the absence of real-world user feedback, the platform's potential impact is discussed in terms of anticipated benefits for both service providers and clients. Ongoing improvements and user feedback will play a crucial role in refining the platform based on actual experiences and needs.

In conclusion, the Customizable Service Provider Platform demonstrates promise as a comprehensive and adaptable solution in service management platforms. Subsequent chapters will explore recommendations and further enhancements to accommodate evolving requirements.

Chapter 5

Conclusion

In concluding the exploration of the Customizable Service Provider Platform, we gather key findings, insights, and look towards the future of this project.

5.1 Summary

The development and implementation of the Customizable Service Provider Platform mark a significant achievement in creating a unified, versatile solution for service providers and clients. Key accomplishments include the successful integration of features from diverse platforms, robust functionality encompassing service categorization and pricing management, and the establishment of a user-friendly interface for clients.

5.2 Recommendations for Improvement

While the platform demonstrates promise, ongoing improvements are recommended to enhance its performance and user experience. Key areas for refinement include incorporating real-world user feedback to address specific needs and challenges faced by service providers and clients. Additionally, continuous updates and adaptations will ensure the platform remains aligned with evolving industry standards and technological advancements. The incorporation of security measures is also recommended to ensure the platform's trustworthiness.

5.3 Lessons Learned

Throughout the project, valuable lessons were learned in navigating the complexities of service-oriented businesses, digital platforms, and the integration of diverse features. The importance of adaptability, scalability, and user-centric design emerged as crucial considerations in developing effective solutions. These lessons contribute to ongoing efforts to refine and optimize the platform.

5.4 Future Work and Directions

In the pursuit of continual enhancement and expansion, the following areas present avenues for future development:

- Evolution into a Social Platform: Extend the platform's capabilities to include social features, enabling customers to follow companies and workers for updates on new services, posts, and articles, fostering a more engaging user experience.
- Suppliers and Inventory Management: Elevate the platform's capabilities in suppliers and inventory management, implementing advanced tools for tracking, forecasting, and optimizing the procurement and utilization of supplies associated with diverse services. This will contribute to operational efficiency and cost-effectiveness for service providers.
- Comprehensive HR Management: Develop a comprehensive HR management system, allowing employees to request time off, track their time logs, and generate reports to enhance organizational efficiency.
- Innovative Service Request System: Introduce an innovative system where customers can propose requests for non-existing services. Companies can then submit proposals, allowing customers to choose the service that aligns best with their needs, fostering a dynamic marketplace.

5.5 References

The following references were consulted and utilized during the development of the Customizable Service Provider Platform:

- Our Platform API Documentation: http://3.83.44.116:8085/swagger-ui/index.html
- React: https://react.dev/
- React Native: https://reactnative.dev/
- Spring Boot: https://spring.io/projects/spring-boot
- VScode: https://code.visualstudio.com/
- IntelliJ: https://www.jetbrains.com/idea/
- Docker: https://www.docker.com/
- GitHub: https://github.com/
- GitHub Actions: https://github.com/features/actions
- Swagger: https://swagger.io/
- Postman: https://www.postman.com/
- Algolia: https://www.algolia.com/
- FullCalendar: https://fullcalendar.io/
- MySQL: https://www.mysql.com/
- AWS RDS: https://aws.amazon.com/rds/
- Firebase: https://firebase.google.com/

These references provided valuable insights, documentation, and tools that significantly contributed to the successful implementation of the Customizable Service Provider Platform.