

AN-NAJAH NATIONAL UNIVERSITY



## **FACULTY OF ENGINEERING AND INFORMATION TECHNOLOGY**

Computer Engineering Department

Software Graduation Project



PalEase

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Presented in partial fulfillment of the requirements for a Bachelor's degree in Computer Engineering

## **Acknowledgment**

We would like to express our heartfelt gratitude to all those who have contributed to our journey and aided us in achieving the successful completion of this integrated project.

First, we extend our sincerest appreciation to our beloved families and mentors for their unwavering support, valuable guidance, and continuous encouragement throughout this endeavor.

We are especially grateful to our project supervisor, Dr. Ala'a Aldeen Al-masri, for his invaluable expertise, insightful feedback, and dedicated supervision, which played a crucial role in shaping the project's direction and ensuring its success.

Lastly, we extend our thanks to our friends who provided us with encouragement, constructive suggestions, and helpful tips, contributing to the refinement of our work.

We are truly fortunate to have professors in the Department of Computer Engineering of individuals who believed in our abilities and invested their time and efforts in our personal and academic growth. Their contributions have been instrumental in our achievements, and we are sincerely grateful for their presence in our lives

## **DISCLAIMER**

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## **Abstract:**

In the fast-paced world we live in today, technology has become an integral part of our lives, especially in the fields of programming and technology. As smart devices become more and more common, there is a growing demand for applications that simplify our daily tasks. Our project aims to meet this demand by providing a platform that connects the citizens of Palestine with the public services provided by the government. So this project will help the Palestinians get their work done, effortlessly and with reduced time investment.

The "PalEase" project is designed to transform the way users in Palestine access public services and manage documents through a mobile application. By consolidating a wide array of government services on its platform, "PalEase" eliminates the need for users to wait in long queues for hours. This innovative app streamlines essential tasks such as school enrollment, official document management, and educational exploration, all within a user-friendly interface. Users can easily navigate through bureaucratic processes to acquire important documents like IDs, certificates, and permits. Additionally, "PalEase" includes an educational section that allows users to explore schools, universities, and course materials effortlessly. Through the use of technology to simplify administrative procedures, "PalEase" aims to empower users and improve their overall experience in accessing public services in Palestine.

We will develop and create this app using flutter for Front End programming, and Dart& PHP for the BackEnd.

## Chapter 1: Introduction

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The complex political and social landscape in Palestine has created numerous challenges for its residents, impacting their daily lives significantly. To address these challenges effectively, innovative solutions are needed to simplify access to essential services and information. The project "PalEase" has been developed with the aim of providing a user-friendly digital platform that integrates various governmental and community services to enhance the lives of Palestinian individuals.

The main goal of PalEase is to enhance the quality of life for Palestinian citizens by offering a centralized platform for essential services. This project seeks to:

- Streamline government services, such as ID and passport issuance and renewal, as well as driving license applications and renewals.
- Provide specialized assistance for individuals with special needs, including information on relevant facilities, guidance, and application services.
- Improve educational opportunities by enabling users to search for schools and universities based on specific criteria and offering direct links to application portals.
- Support orphanages by showcasing their details and providing avenues for donations and sponsorship opportunities.

The significance of PalEase lies in its potential to simplify and modernize the interaction between Palestinian citizens and essential services. In a region where bureaucratic procedures can be particularly cumbersome, this platform is poised to save time, alleviate stress, and enhance accessibility for all users. By consolidating these services, PalEase not only meets the current demands of the market but also aligns with global trends towards digitalization and smart city initiatives. This project plays a critical role in fostering an inclusive, efficient, and responsive service environment in Palestine.

The report is structured into various sections to present a thorough analysis of the PalEase project. These sections include:

1. **Introduction:** Providing an overview of the background, objectives, significance, and overall structure of the report.

2. **Literature Review:** Examining existing solutions and the current landscape of service accessibility in Palestine.
3. **Methodology:** Explaining the approach and methods utilized in the development of PalEase.
4. **System Design:** Delving into the design and features of the platform, encompassing aspects such as user interface and user experience.
5. **Implementation:** Addressing the technical components and the process of implementing PalEase.
6. **Conclusion and Future Work:** Summarizing the key findings and proposing potential enhancements for the future of the project.

## **Chapter 2: Theoretical Background and Previous Work**

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### **2.1 Theoretical Background**

#### **2.1.1 Digital Government Services:**

Digital government services, or e-Government, refer to the utilization of information and communication technologies (ICT) to improve the provision of government services to citizens, businesses, and various government entities. The primary goal of e-Government is to streamline governmental procedures, promote transparency, and ensure accessibility. The advantages of e-Government encompass decreased administrative workload, enhanced public service provision, and heightened citizen participation.

#### **2.1.2 Accessibility and Special Needs Support**

People with special needs need care from people around them, and many of them need care from people specialized in this aspect, but finding a care centre for the special need I want may take so much time. The goal of this app is to make the searching and applying for care centres easier and faster, in order to help reduce the pressure on these people families.

#### **2.1.3 Educational Resource Platforms**

Searching for schools and universities is not always easy. Some people may find it hard to find schools in their home towns, or their cities, some want to find a private school, while another want to find a governmental one. And for universities, it is sometimes hard for high school students to search for universities and decide where to study. So our aim is to make it easier for every one to search for schools and universities, and make the applying for universities easier and faster.

#### **2.1.4 Support for Orphanages**

Sometimes you may want to Donate for an orphanage, or sponsor an orphan, but you may not know how to do so. So we made it easier for you, you can find the orphanages, and a link to the donation page, or the sponsor an orphan page.

### **2.2 Previous Work**

In Palestine there is no such application for e-government services, but some of the features added in the app has some e-services, such as universities, the universities provide a way for students to search in the majors they have and to apply to them, but what we did is that we made it possible to search in all the universities at once, so you can decide which university to choose.

## Chapter 3: Methodology

---

### 3.1 Tools, Methods and Programming Languages

#### 3.1.1. Tools



Visual Studio Code was used for writing and executing the server side code(API) . It provided essential features and tools for code editing, debugging, and project management.



Android Studio was the primary IDE used for writing the code, and utilized as an emulator to test the mobile application on different virtual devices, ensuring compatibility and smooth functionality, and to run and test the web application.



We utilized GitHub for collaborative development, code management, and tracking changes.



Firebase was integrated into our project to leverage its real-time database and cloud storage capabilities. This allowed us to securely and efficiently store messages and images. We also utilized Firebase's messaging service to enable notification functionality, enabling communication from the web to mobile and between mobile devices.

#### 3.1.2. Programming language

The mobile application and web pages were developed using a combination of programming languages: For the frontend, we utilized Dart and the Flutter framework. Dart is a language specifically designed for building user interfaces, while Flutter provides a rich set of tools and widgets for creating visually appealing and interactive mobile applications.

For the backend, we utilized php, node.js to write the codes that interact with the database.

For the database, MySQL (MyPHPAdmin) with XAMPP server. It is a free and open source MySQL and MariaDB management tool. It has become one of the most popular MySQL admins Tools, especially for web hosting services, such as a mobile web application mostly developed in PHP. And firebase was used for real time data transfer, for storing images, for chatting and notifications.

#### 3.1.3. Database Tables:

We built a database for the project, called PalEase, using mysql, and used phpMyAdmin to use it like a local server.

The data base has the following tables:

Table	Action	Rows	Type	Collation	Size	Overhead
applications	★ Browse Structure Search Insert Empty Drop	56	InnoDB	utf8mb4_unicode_ci	48.0 KiB	-
applications_data	★ Browse Structure Search Insert Empty Drop	34	InnoDB	utf8mb4_unicode_ci	64.0 KiB	-
departments	★ Browse Structure Search Insert Empty Drop	57	InnoDB	utf8mb4_general_ci	16.0 KiB	-
department_type	★ Browse Structure Search Insert Empty Drop	5	InnoDB	utf8mb4_general_ci	16.0 KiB	-
majors	★ Browse Structure Search Insert Empty Drop	53	InnoDB	utf8mb4_general_ci	32.0 KiB	-
needs	★ Browse Structure Search Insert Empty Drop	8	InnoDB	utf8mb4_general_ci	16.0 KiB	-
orphanages	★ Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_general_ci	32.0 KiB	-
processed_applications	★ Browse Structure Search Insert Empty Drop	4	InnoDB	utf8mb4_general_ci	16.0 KiB	-
roles	★ Browse Structure Search Insert Empty Drop	57	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
roles_users	★ Browse Structure Search Insert Empty Drop	11	InnoDB	utf8mb4_unicode_ci	64.0 KiB	-
schools	★ Browse Structure Search Insert Empty Drop	12	InnoDB	utf8mb4_general_ci	32.0 KiB	-
specialneedscenters	★ Browse Structure Search Insert Empty Drop	48	InnoDB	utf8mb4_general_ci	64.0 KiB	-
tokens	★ Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_general_ci	16.0 KiB	-
universities	★ Browse Structure Search Insert Empty Drop	6	InnoDB	utf8mb4_general_ci	16.0 KiB	-
users	★ Browse Structure Search Insert Empty Drop	17	InnoDB	utf8mb4_unicode_ci	48.0 KiB	-
_statistics	★ Browse Structure Search Insert Empty Drop	6	InnoDB	utf8mb4_unicode_ci	32.0 KiB	-
<b>16 table(s)</b>	<b>Sum</b>	<b>378</b>	<b>InnoDB</b>	<b>utf8mb4_general_ci</b>	<b>528 KiB</b>	<b>0 B</b>

Figure 3-1-2- 1

Now let's talk about each table and its purpose, first the users table, is a table that has users info, and their profile data, like email, password, phone number, id, and so on. There is an is\_admin flag, in the users table, if it is true, then this user is a worker in some institute, in order to know where the user works, you need to check the roles\_users table, which has user\_id and role\_id, to know the role\_id is for which working institute, you can check the roles table, and you will find the role name.

The department\_type table has the types of working departments in our project, which are: Governmental ( ID's , Passports and Driving License), School for schools, university for universities, orphanages for orphanages and special needs center for special needs. Not for the departments table, you will find the department\_name, and department\_type (for which of the five department types described does this department belong), and the last department is for the administrator, who accepts or rejects the user request to have a worker account.

Now the universities table has the info and data of the universities, same for schools, and orphanages, needs table has the 8 special needs discussed in this project, and the specialneedscenters has the centers and each of them connected to the needs id that it work on.

Applications table has the application that the user can apply for in each department, and applications\_data has the application data the user filled when applying for the application, in firebase there is a collection for these applications to save the images submitted with each application. And lastly there is the Tokens table, for each user signing in, there will be a token generated and saved in this table.

## 3.2 System Features Implementation

### 3.2.1 Mobile Application

#### 1. Login & Signup

When the user open the application, he sees the home page, with log in and signup buttons, each navigate to it's page:

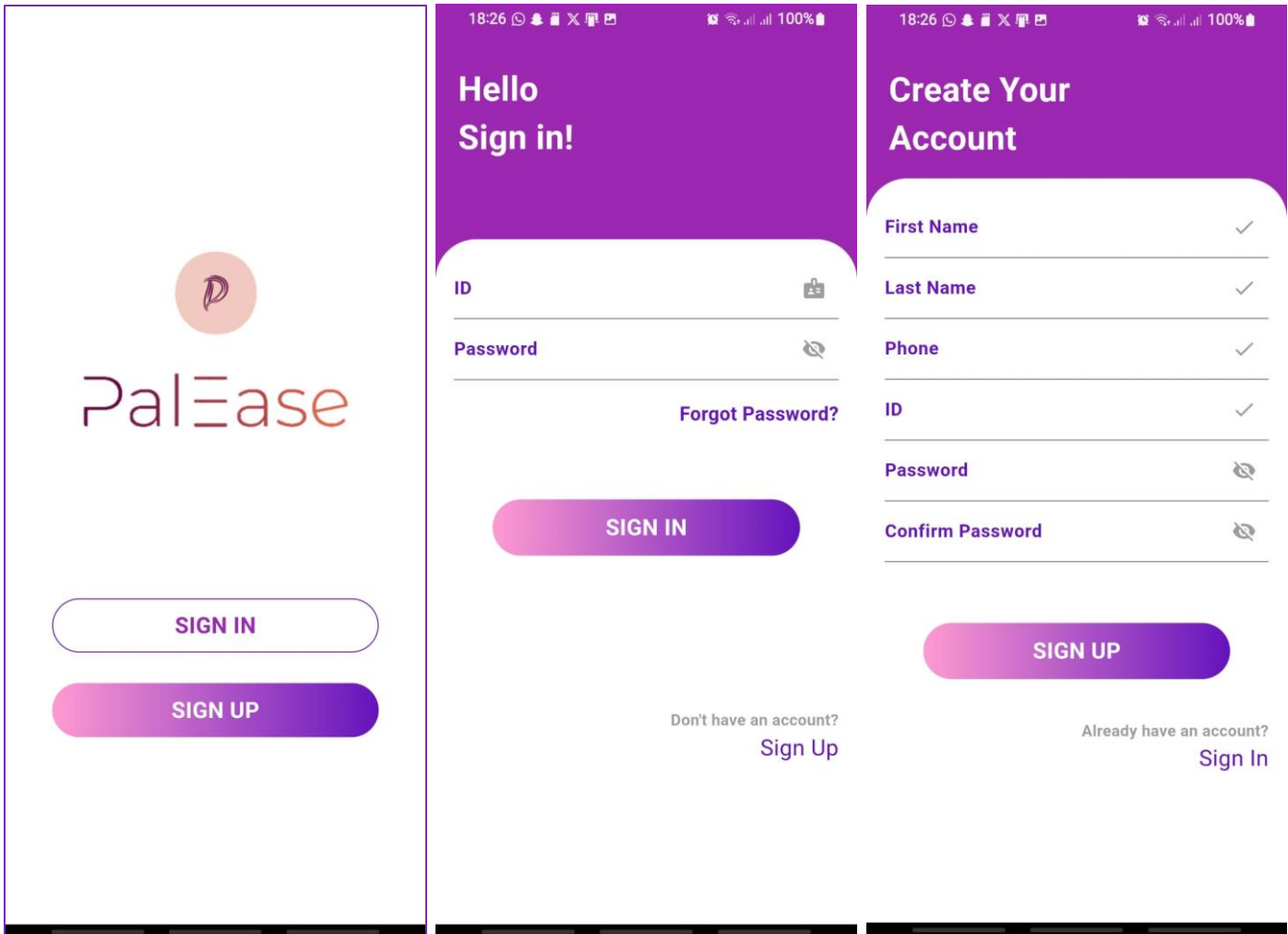


Figure 3-2-1- 1

#### 2. forgot password:

As shown in the above figures, the sign up and sign in depends mainly on the ID, and password, and for signing up you need to add a phone number. So when the user forgets the password, he can press on the forgot password button shown, add his userID, recives the verification code through whatsapp, and then reset the password.

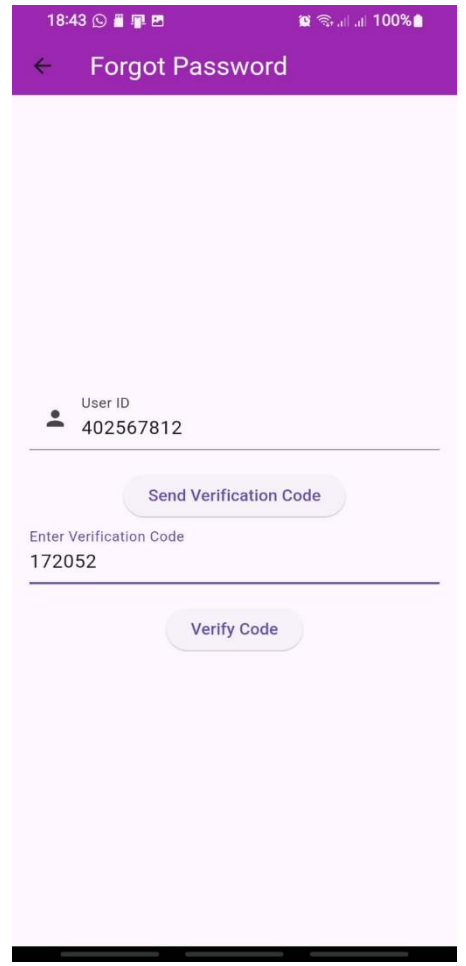
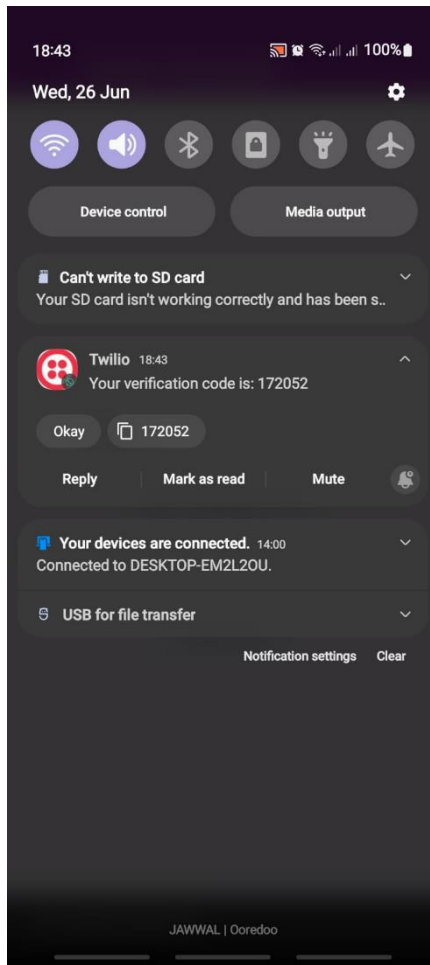
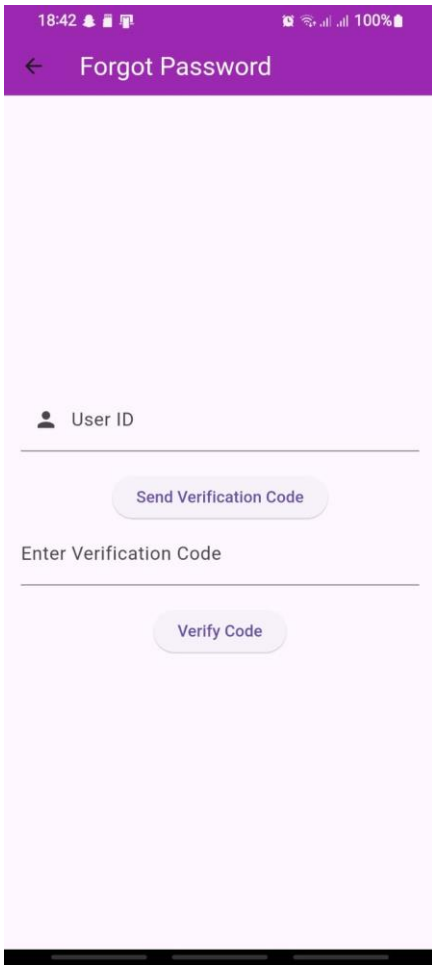


Figure 3-2-1- 2

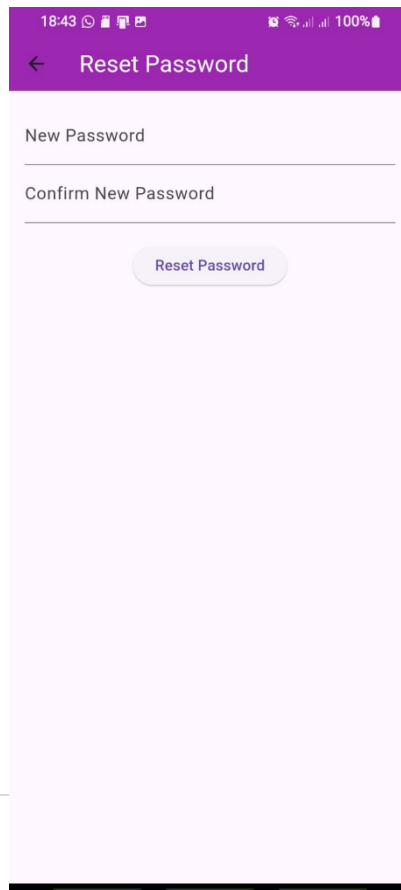


Figure 3-2-1- 3

### 3. User login:

After signing in to the app from the sign in page, the user now sees the home page that has three buttons, one navigate to the services page, another to the applications page, and the last one for the inbox page, and on the app par there are icon buttons, to visit the profile page, or to change between English and Arabic, and the last for signing out and leaving the app, these three icon buttons will be on all pages.

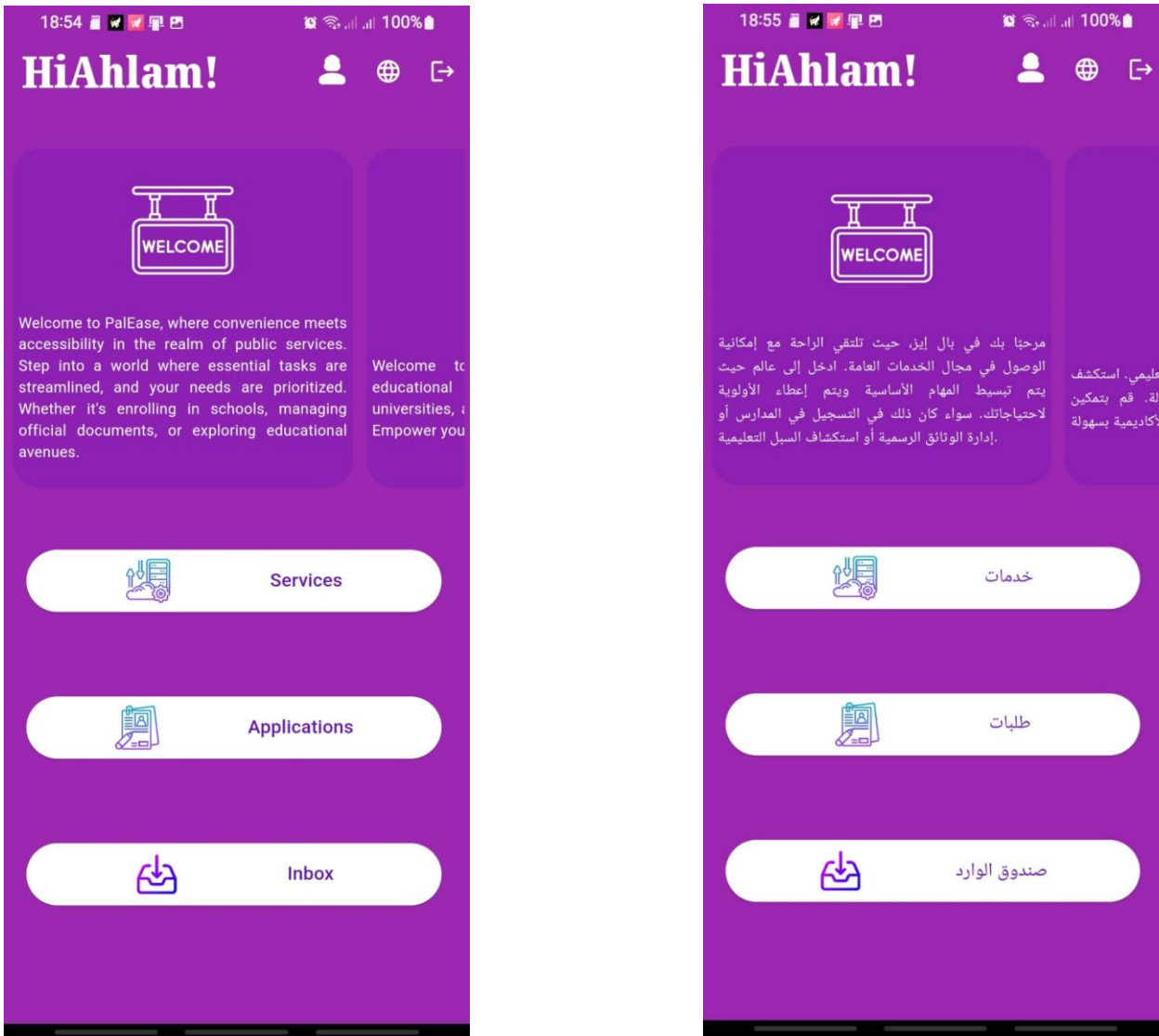


Figure 3-2-1- 4

### Services page:

In the services page, the user sees 8 buttons, each navigate to a page for one of the services provided by the app

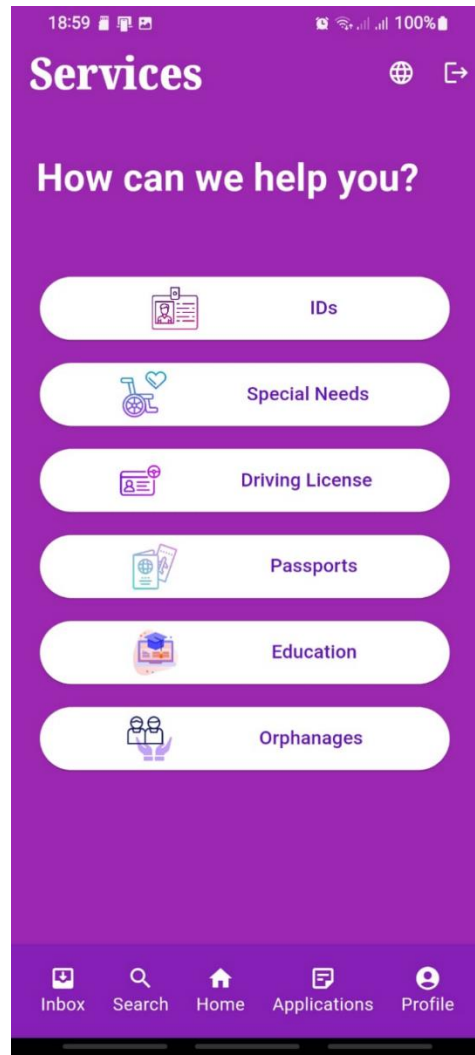


Figure 3-2-1- 5

Now, let's go through the services one by one, let's start with the government services.

The government services are the IDs, Passports, Driving License. They have similar services; so for the ID, it has New ID, ReNew ID, and Lost ID, same goes for passports, and for the driving license it has New License and renew License.

For the convenience, we will attach some things in Arabic and others in English.  
let's start with the IDs

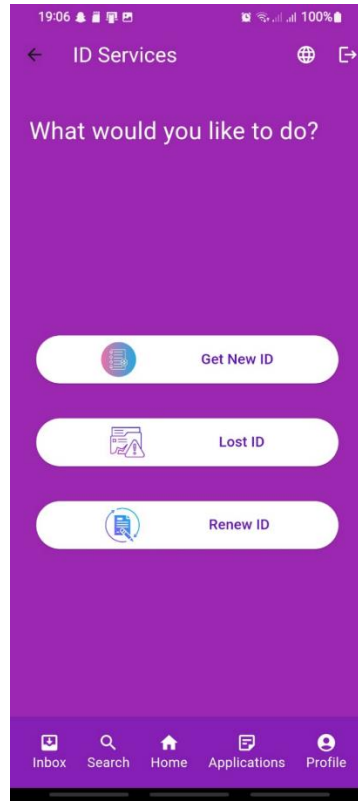


Figure 3-2-1- 6

For the ID lets take the New ID Service, the other two are similar just have some small differences in the thing the user is asked to fill in the form

Figure 3-2-1- 7

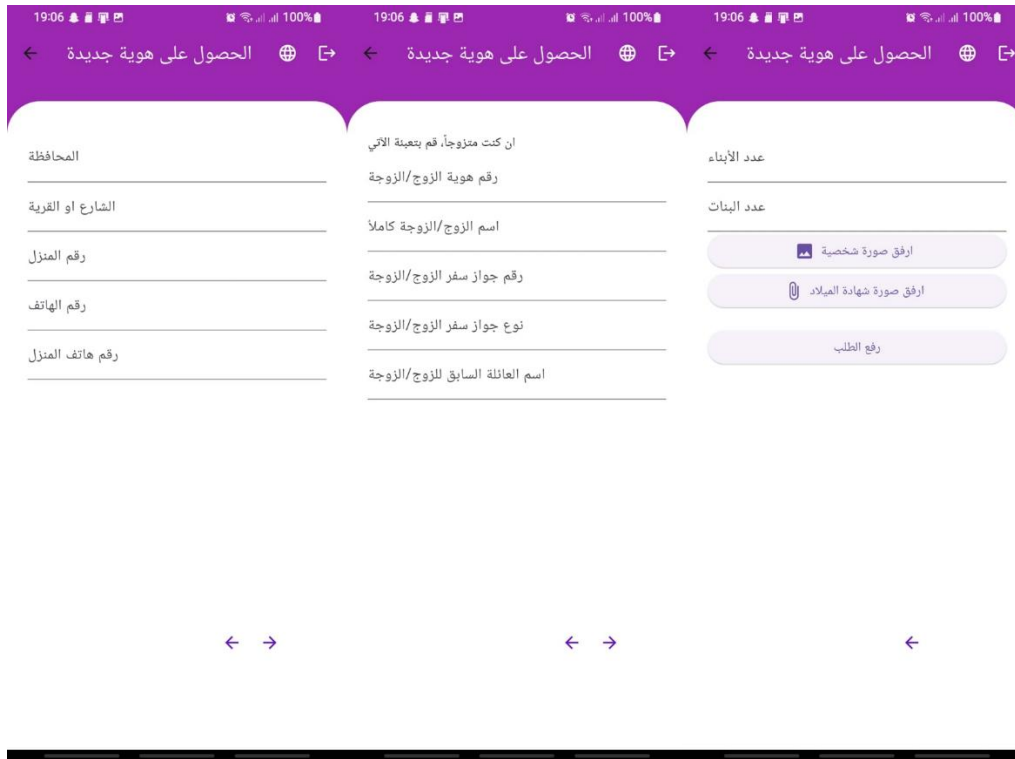


Figure 3-2-1- 8

After pressing submit the user will go to the payment page, to pay for the service, after paying the application of the user can now be process by the workers, so they can approve it or reject it.

The payment method used in the mobile app is Google Pay, and due to security measures, it does not allow taking screenshots, or screen record, so we took pictures of the payment using another phone. So Let us apologize in advance for the quality of the photos.

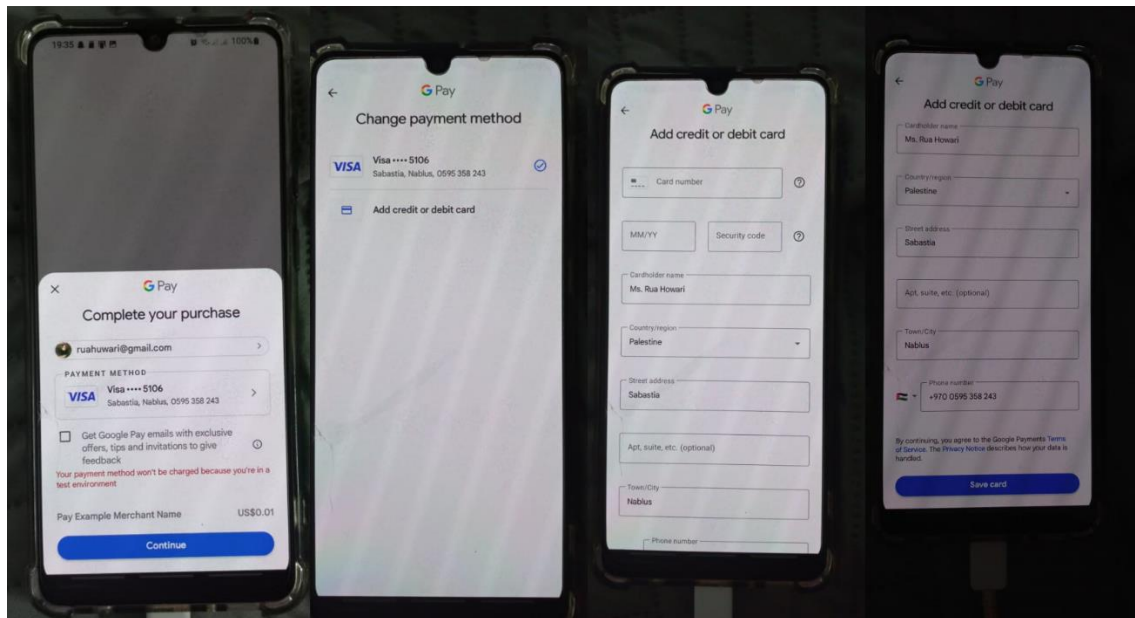


Figure 3-2-1- 9

Now for the Passport, as stated above it has similar features to the ID, but with the differences in what is asked in the form,

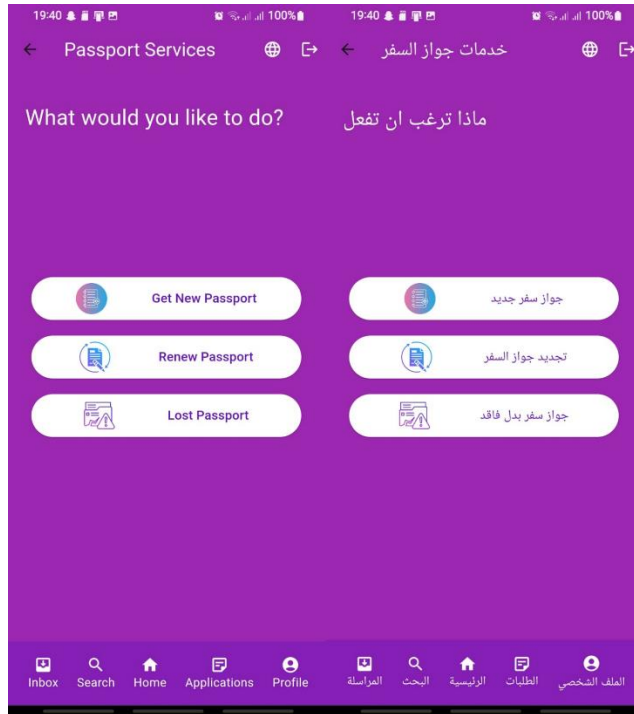


Figure 3-2-1- 10

The following is the form for getting new Passport, the first three pages stays the same no matter the age of the applicant, but the last page asks for different documents, depending on the age of the applicant.

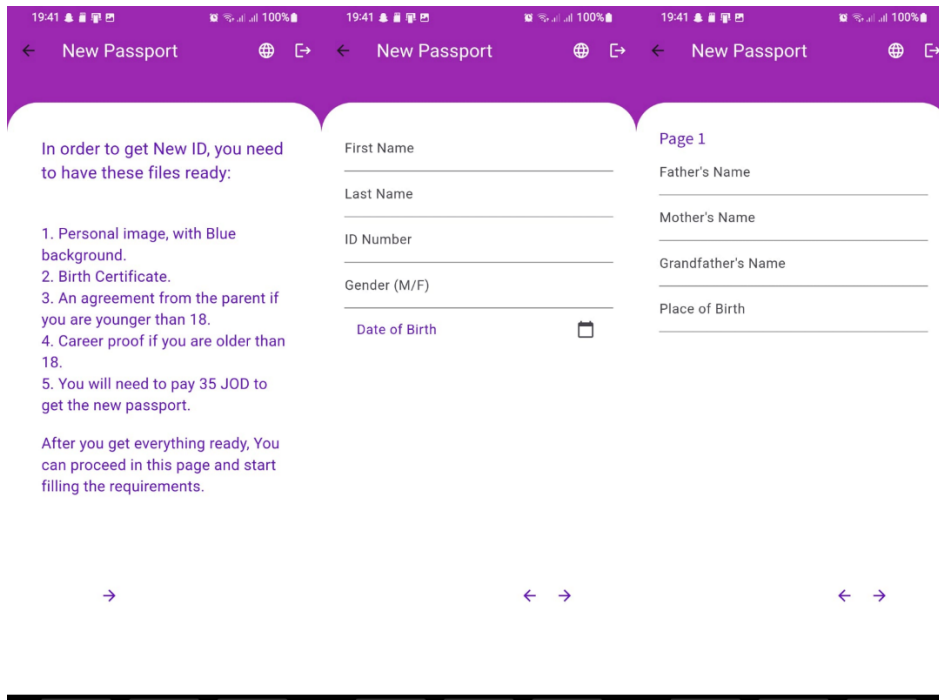


Figure 3-2-1- 11

The last page will have the format on the left, if the age of the applicant is less than 18, so it ask for an agreement statement from the guardian. While the one on the right is when the applicant age is older than 18, so the user will be asked for career proof.

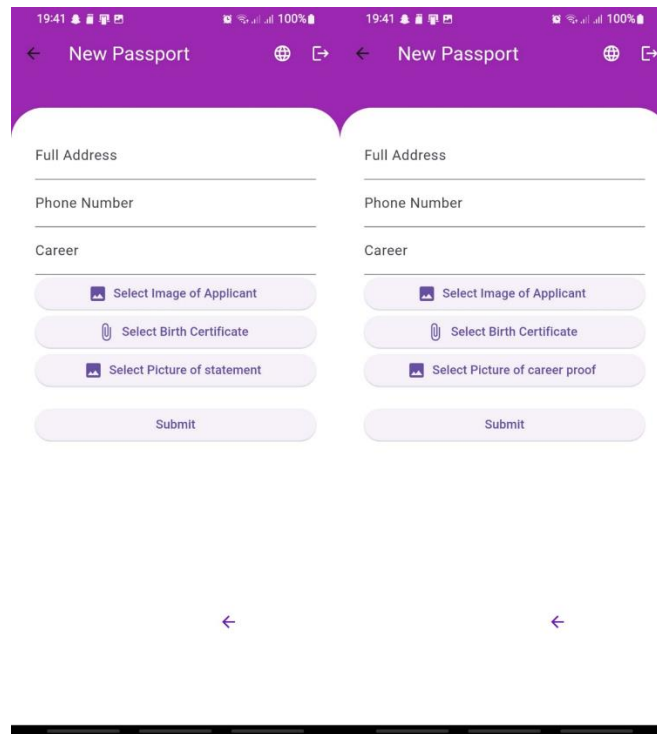


Figure 3-2-1- 12

And when the user submits the form, he will be navigated to the page for paying, so he can pay with google pay, same as the ID.

For the Driving License, the renew license is simple, and only asks for the old license, and some basic info about the user, but for the new license, we have some more details, the first page that has the buttons for new license or new license is the same as ID and Passport.

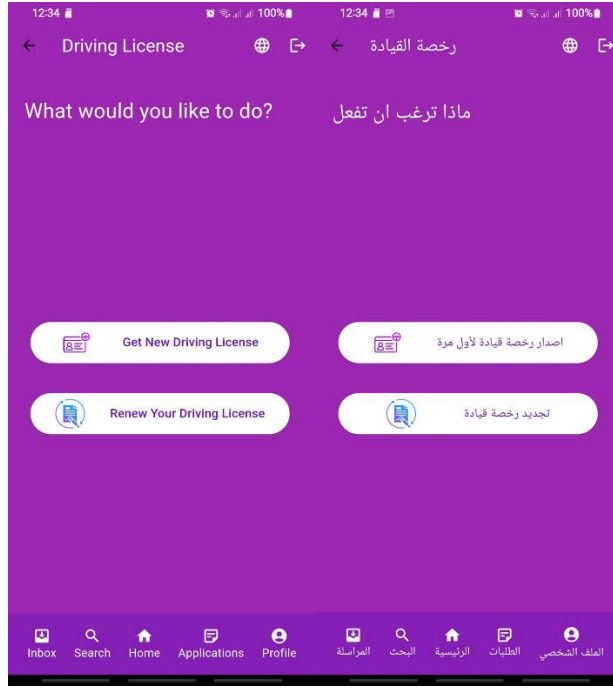


Figure 3-2-1- 13

Now after choosing that you want to get a new license, you will be navigated to a page, that allow you to choose the degree of the license, depending on the degree, you will be asked for which documents you need to approve, so after choosing the degree, you will be navigated to an instructions page, that lets you know what is needed for this degree.

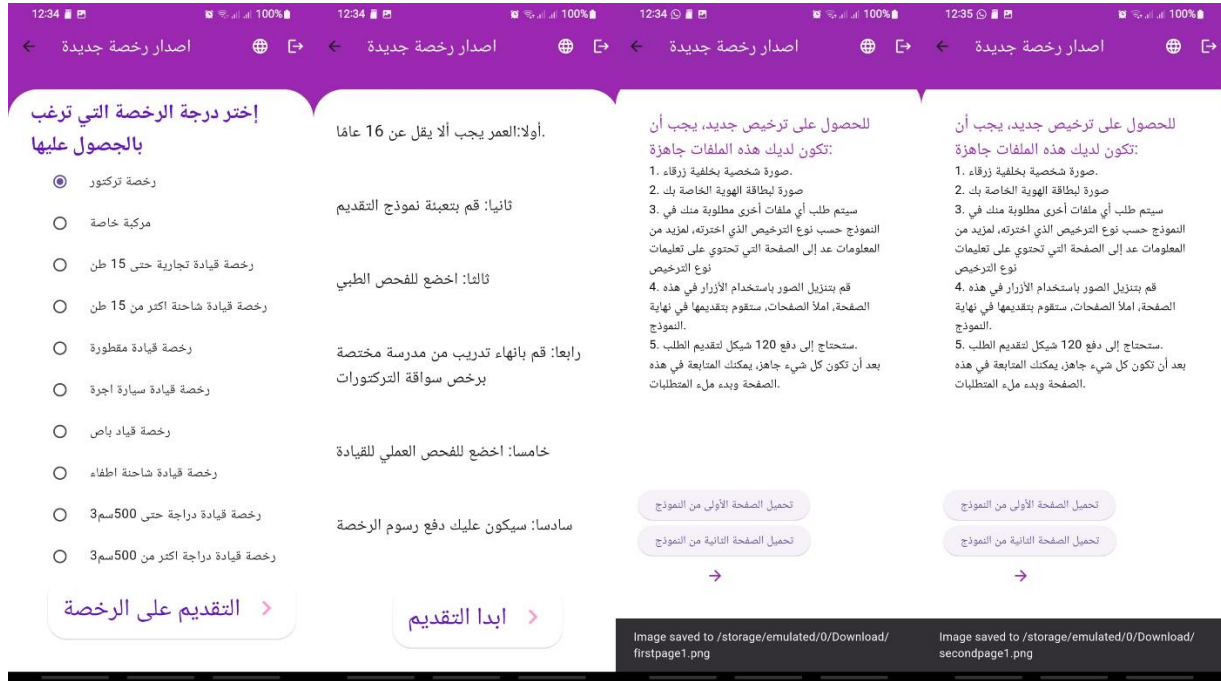


Figure 3-2-1- 14

Figure 3-2-1- 15

The above was for when you choose to get a truck license, but if you decided to get a private car license, the the instruction page, and last page will be different.

Figure 3-2-1- 16

Now we are basically done with the Government services, lets move on to the Educational Services. Lets Start with the Schools, schools section of the application is quite simple, it help the user search for the schools, in an easy way, so that it will be easier for parents to know what are there and where are they located. And some other basic information.

So at first when you choose Education from the Services page you will be navigated to this page:

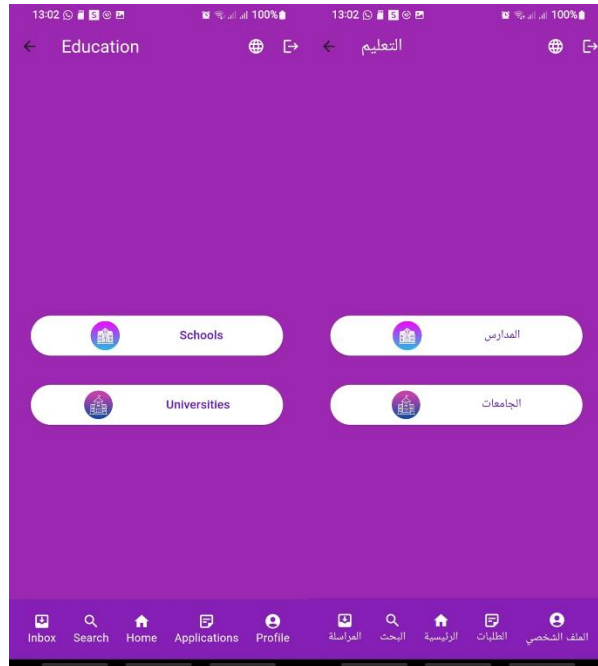


Figure 3-2-1- 17

Then after the user chooses schools, he will start seeing the schools, at first all the schools will be shown, and then the user can filter them as he like.

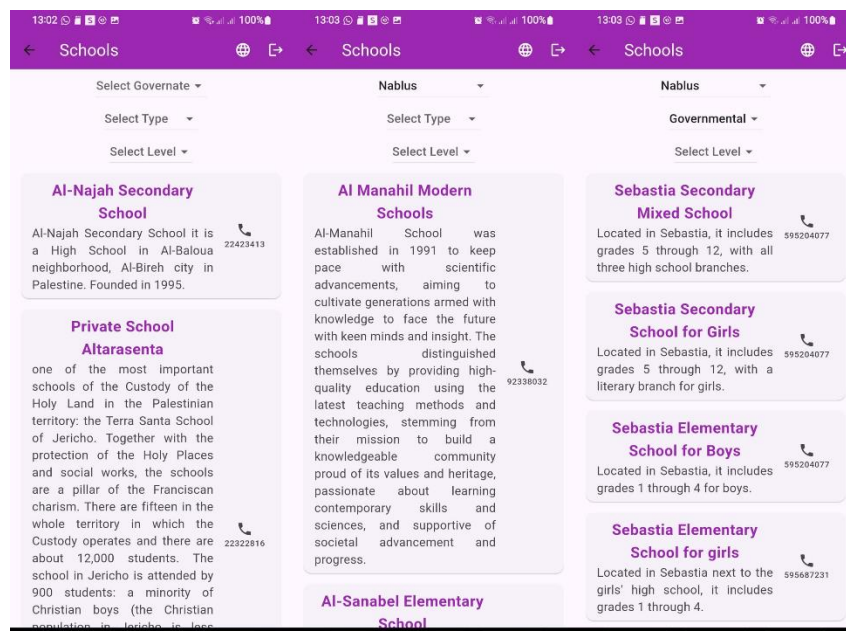


Figure 3-2-1- 18

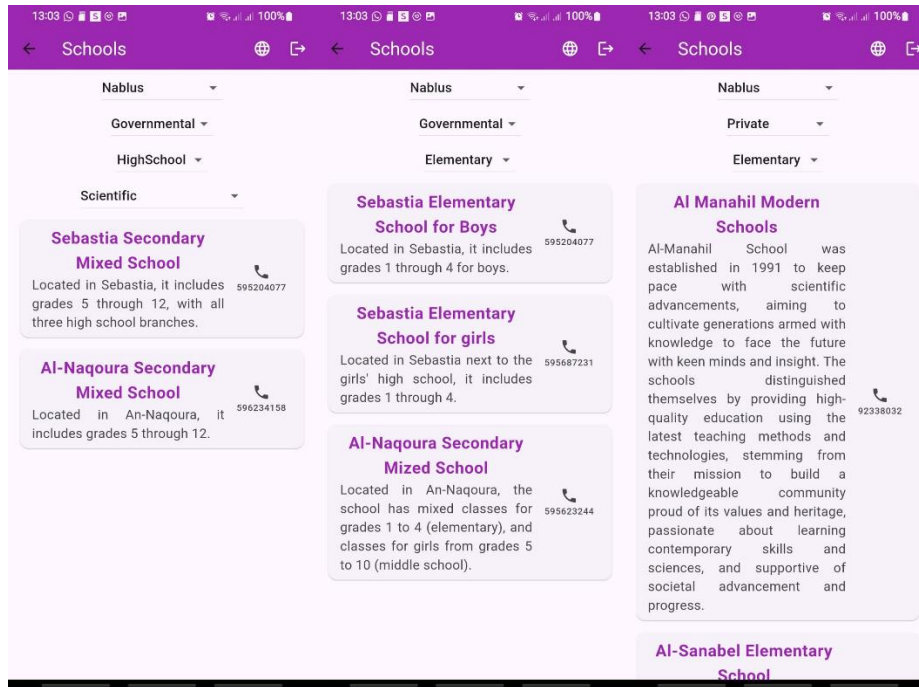


Figure 3-2-1- 19

Now for the Universities, the user first chooses if he want to show results depending on: his high school GPA or depending on the majors, or depending on the Government.

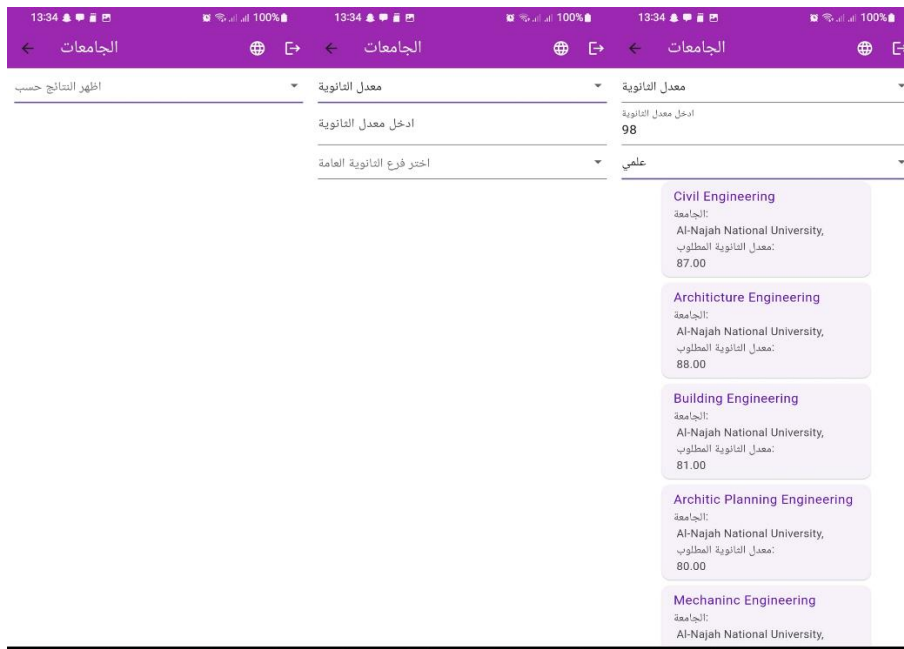


Figure 3-2-1- 20

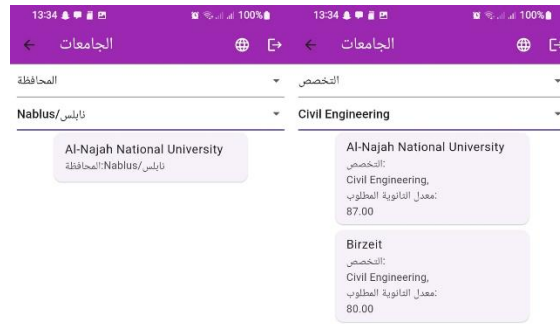


Figure 3-2-1- 21

If the user presses on of the results, he will be navigated to a page that have information about the universities, and at the end of the page there is a video to let the user know how to apply for the university, and a button to take the user to the applying page provided by the university.

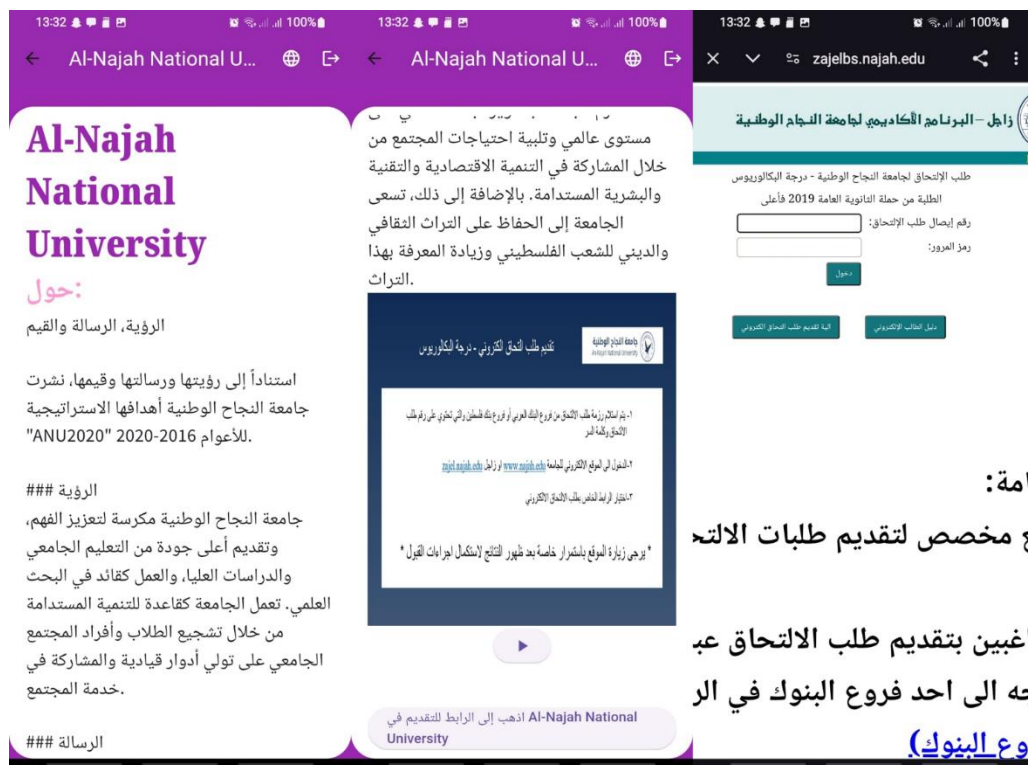


Figure 3-2-1- 22

Now the next is the Special needs section of the application, at first it takes the user to a page to see the needs and choose which he is interested in browsing, after choosing he will navigated to a page with basic info and advice

about how to handle people with this need, and if he is interested in browsing the centers for this need he can press the button at the end of the page, the a new page with the centers that deal with people with this kind of special need, and the if the user found that he is interested in one of the centers, he can press on it, and an form page will be in front of the user, so that he can fill in the form and apply for the center if he has someone with this special need.

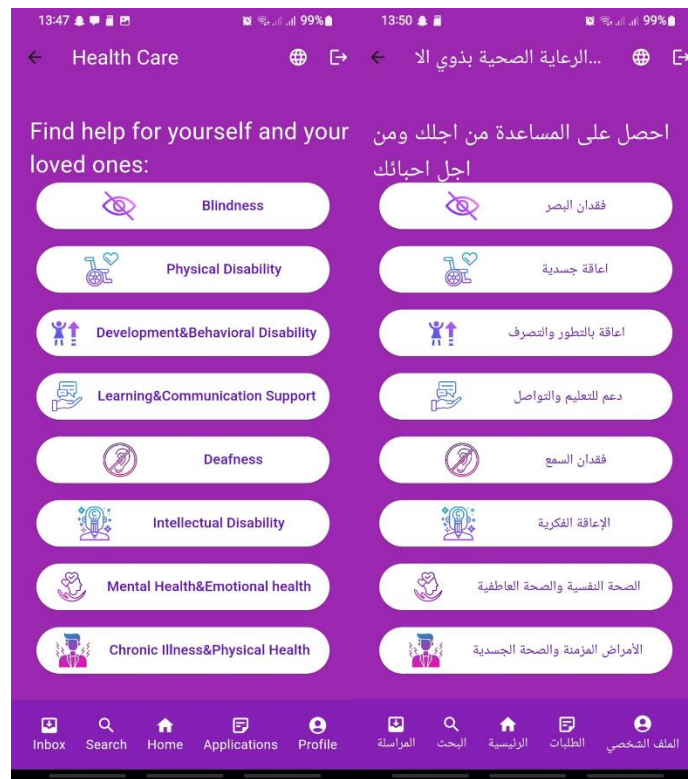


Figure 3-2-1- 23

Then here the user chose to preview the physical disability page

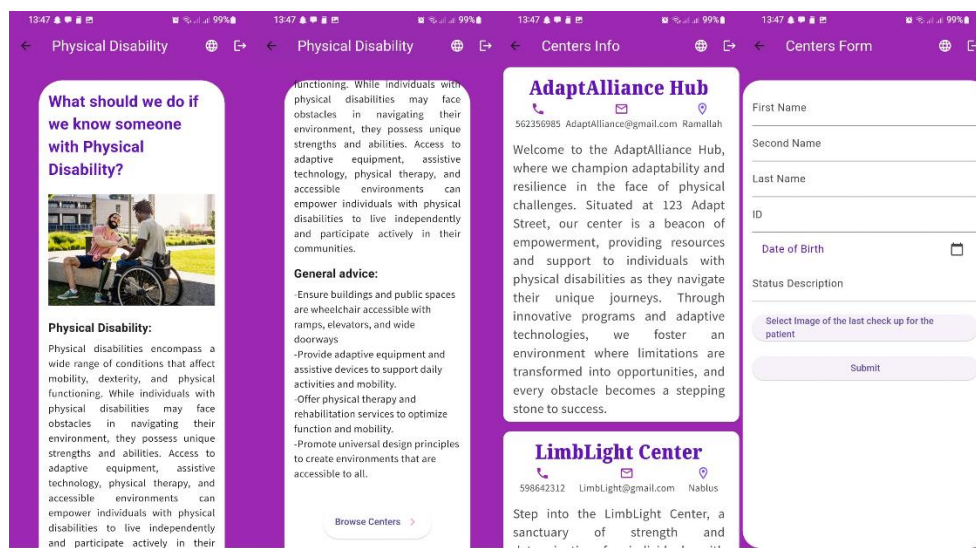


Figure 3-2-1- 24

After filling in the form he will be navigated to the payment page, same as ID, Passport and Driving License.

Now lets move on the last section of our services, which is the orphanages service. When the user press on the Orphanages button from the Services page he will be taken to the page that has info about the orphanages, and there will a be a button for each orphanage to take the user to the official donation page provided by the orphanage website, and if they provide a sponsor link it will be added.

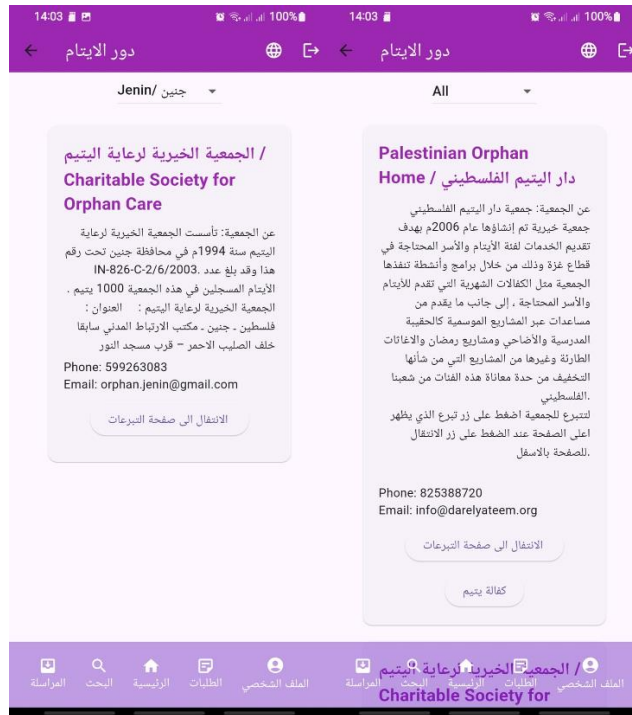


Figure 3-2-1- 25

## Applications Page:

Now lets move on to the Applications page, after the user submit his application, it will be found on the application page, if the user completed the payment, it will be stated in the Payment status of the application that it is already paid for, and If he did not complete the payment, it will be stated that he needs, to complete the payment, with a link to take the user to the payment page.

When the user chooses to go to the application page, he will be taken to a page with 4 buttons, one for All Application, the other for the rejected applications, the third for the Accepted ones, and the last for the application that are still waiting to be processed.

When previewing the applications there is also a get report button, that extract the application filled data, into a Zip file and download it.

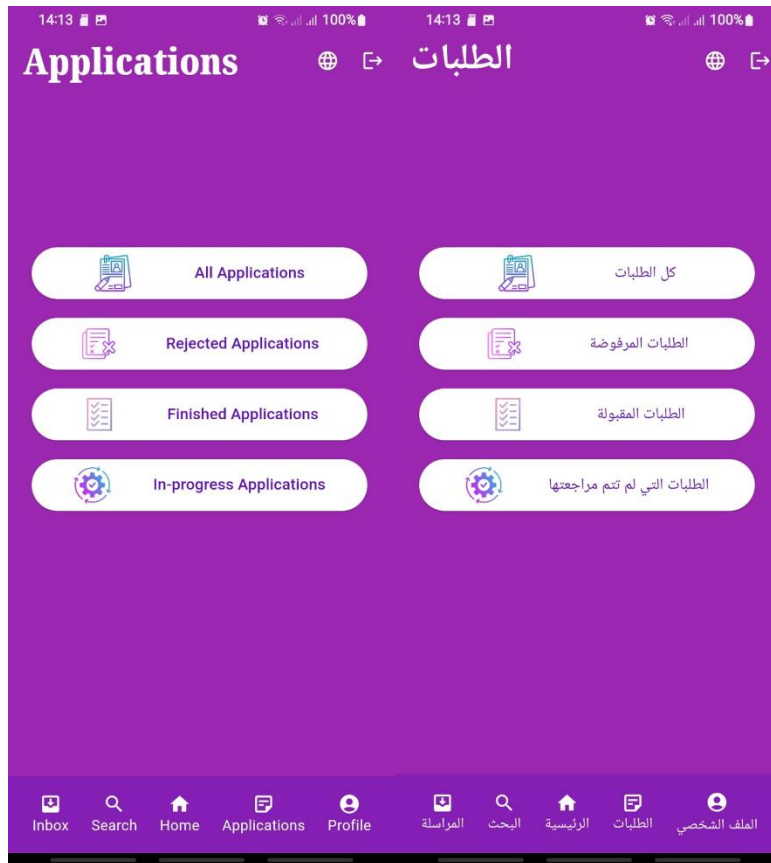


Figure 3-2-1- 26

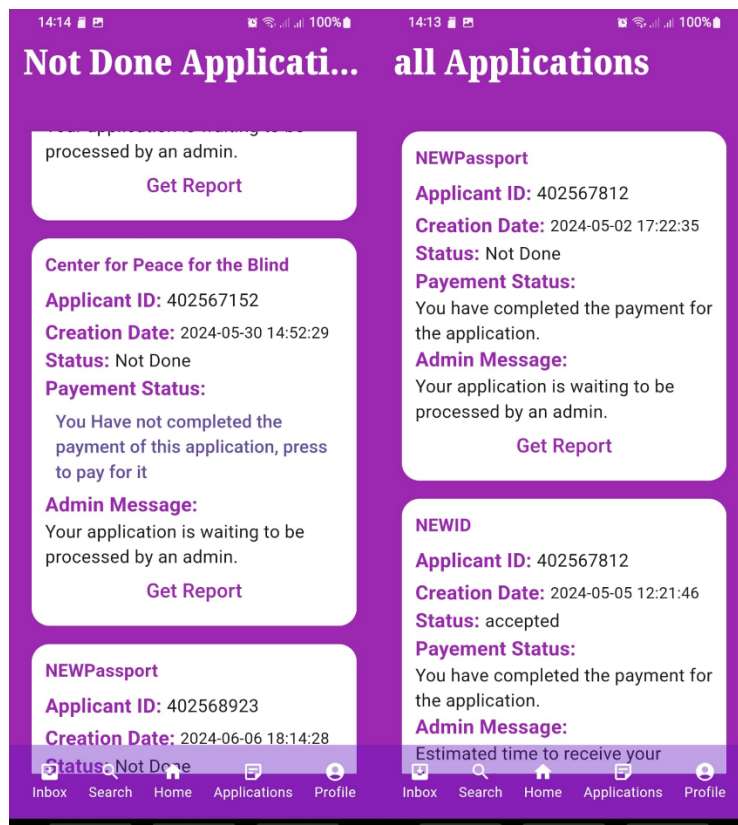


Figure 3-2-1- 27

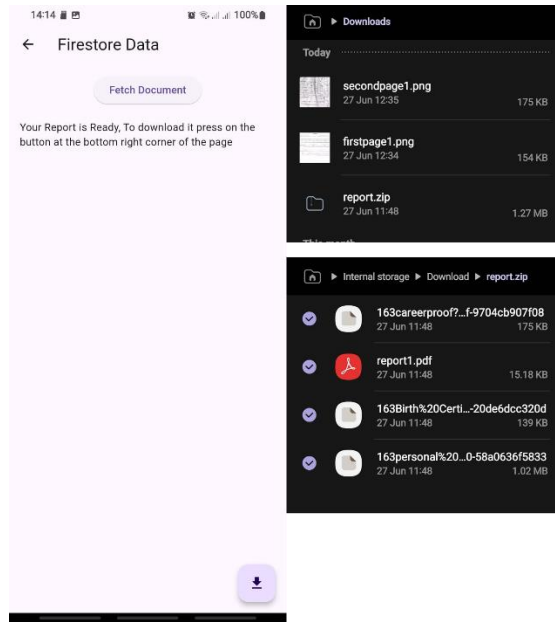


Figure 3-2-1- 28

## Search Page:

The search page show results depending on what the user write on the search field, and what filter did he set for the results.

If the result is and application, e.g. NEW ID, and the user presses on it, it will take the user to the ID page, if it is a special need, e.g. Blindness, then it will take the user to the advices page provided for the Blindness, if it is a special needs center, then it will take the user to the form page for the centers, if it is a university it will take the user to the university info page.

Search can be both in Arabic and English.

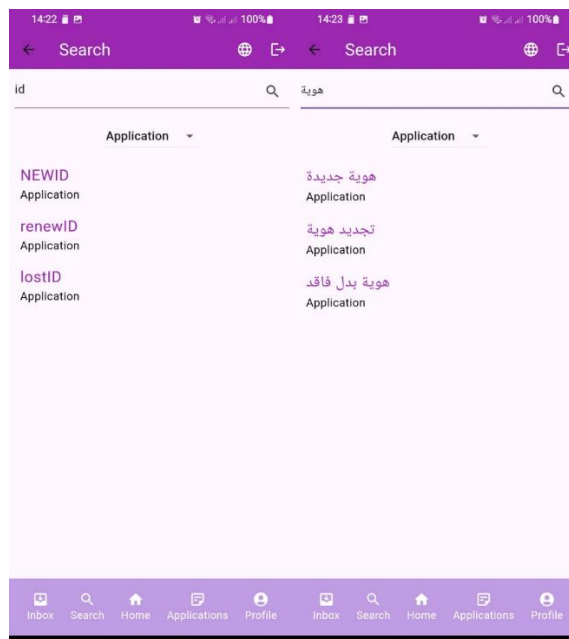


Figure 3-2-1- 29

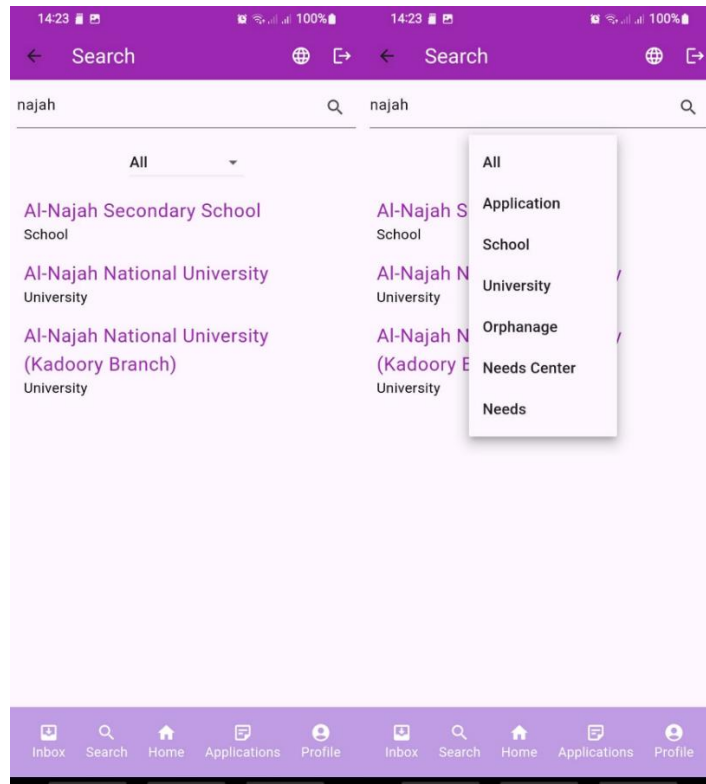


Figure 3-2-1- 30

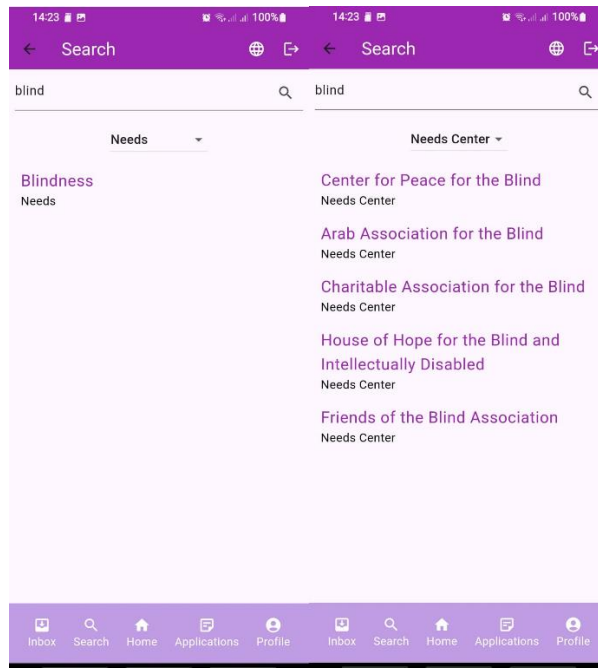


Figure 3-2-1- 31

## Chat Page:

For the chatting, when the user first press on the inbox button, he will be navigate to a page, with the old conversation, and if he chooses one of them he will be taken to the chatting page to send messages. And if the

user want to start a new conversation, he presses on + sign and then will see a list of the working departments, so the user can choose a department and send a message to one of the workers there.

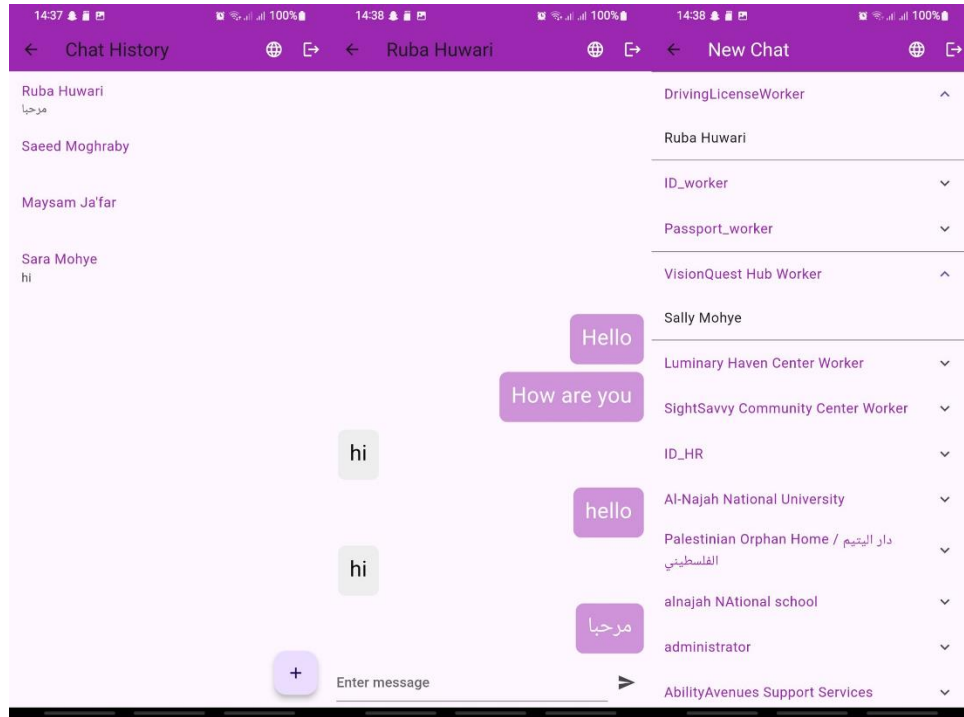


Figure 3-2-1- 32

### Profile Page:

The profile page has the basic info of the user, that he was asked to fill when he sign up, and some fields such as email, date of birth will be empty until the user fill them and complete the setting of his profile.

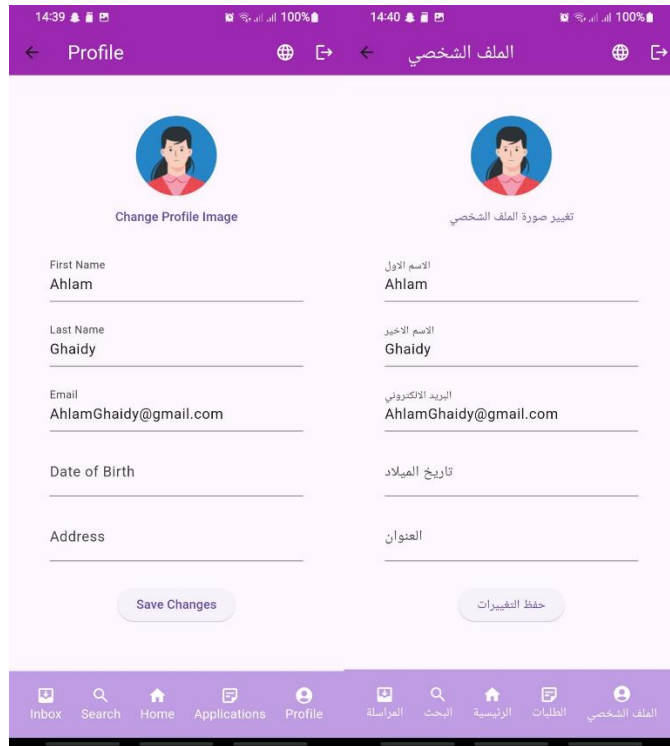


Figure 3-2-1- 33

This is the end of the mobile application featured for the user, we did not add worker features to the mobile, because of the nature of the workers responsibilities; it does not make sense for the worker to process the application from the mobile, so we made the worker features only in the web, and if the worker signed in using the mobile, he will be signed in to his user profile, not the worker profile.

### 3.2.2 Website

#### 1. login & sign up:

When the user first enters the website he will be navigated to the home page

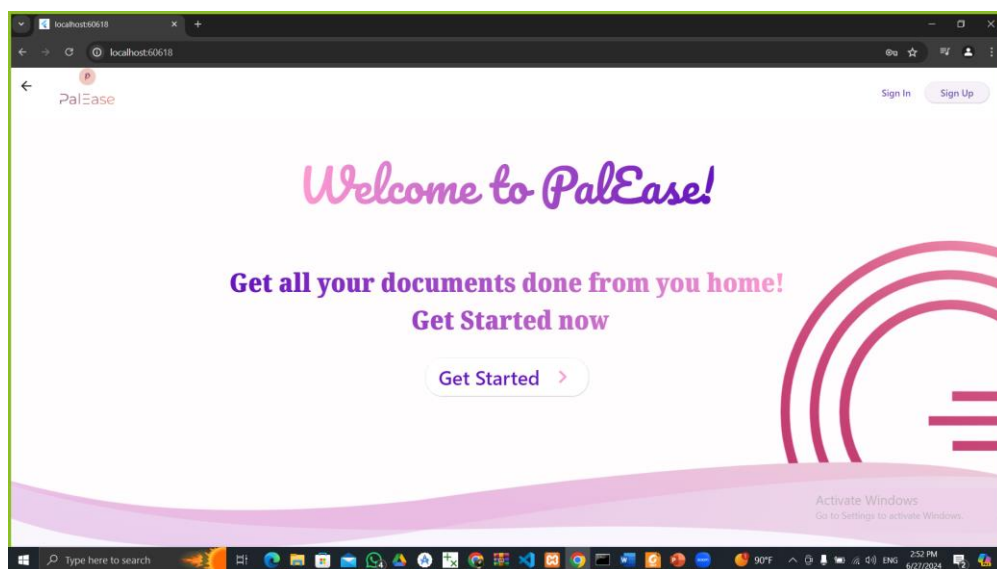


Figure 3-2-2- 1

The sign in and Get Started button both navigate to the sign in page, while the sign up navigate to the sign up page.

### Sign in page:

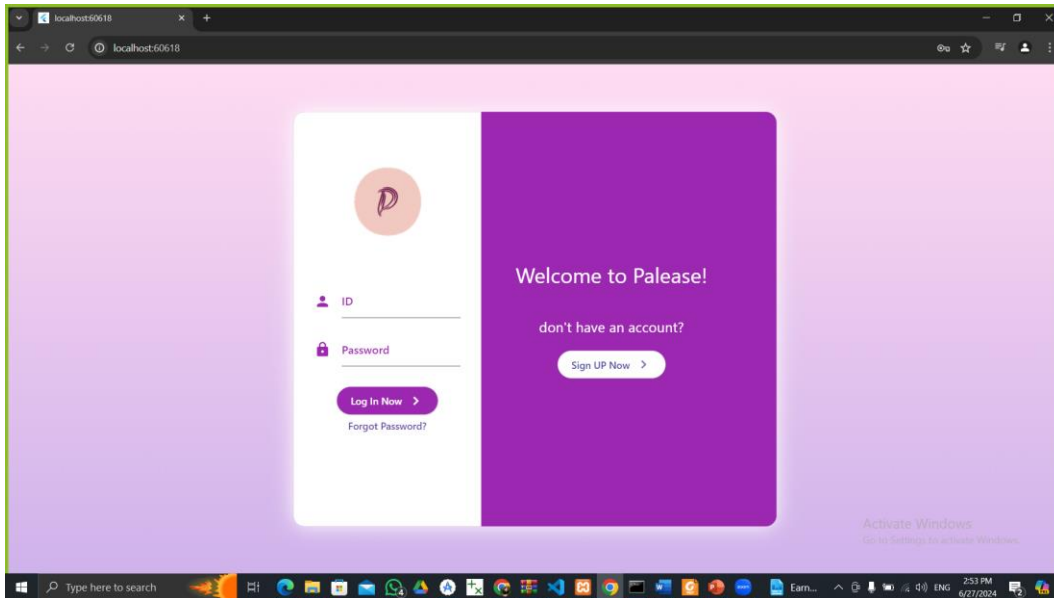


Figure 3-2-2- 2

### Forgot Password Page:

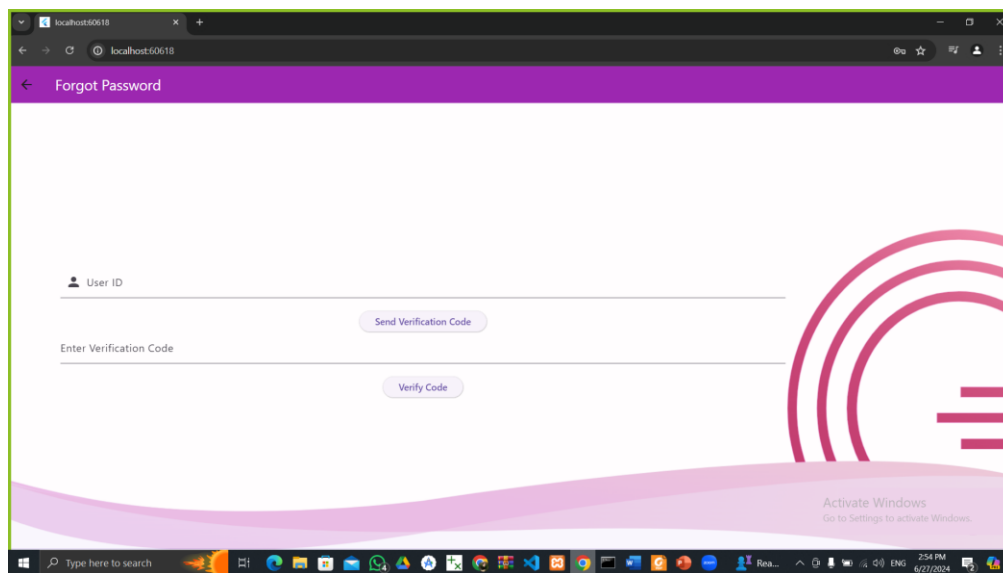


Figure 3-2-2- 3

After the user fills in the user ID and presses Send Verification Code, a code will be sent to whatsapp

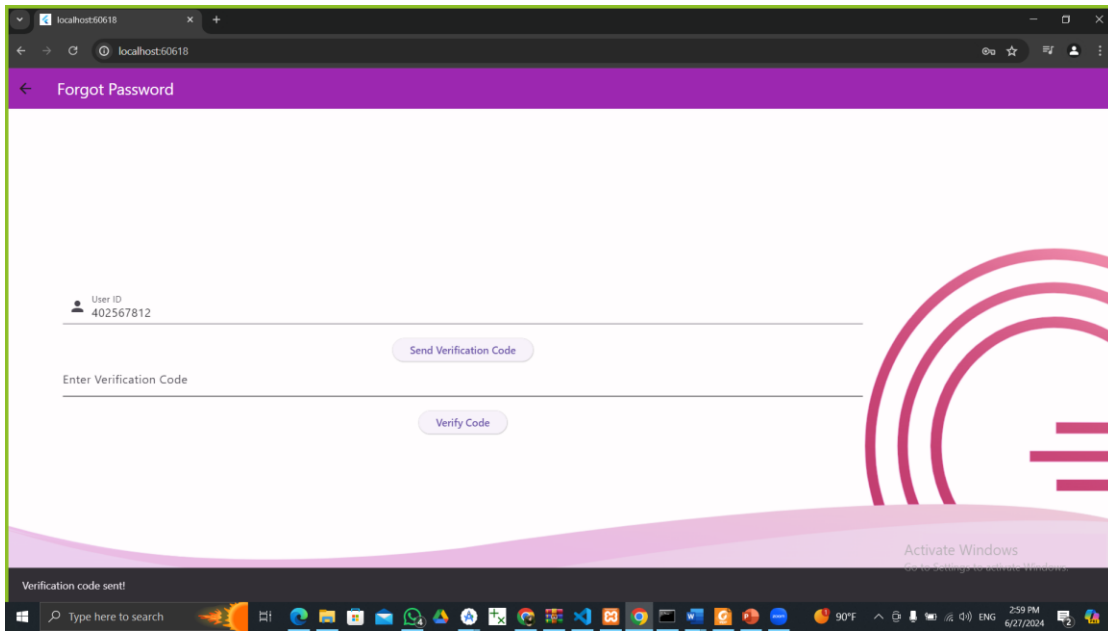


Figure 3-2-2- 4

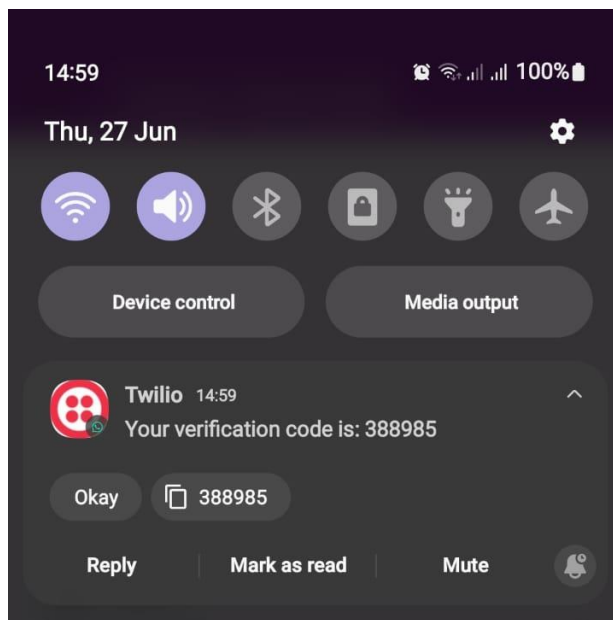


Figure 3-2-2- 5

Then the users fills in the code and go the new password page to set the new password.

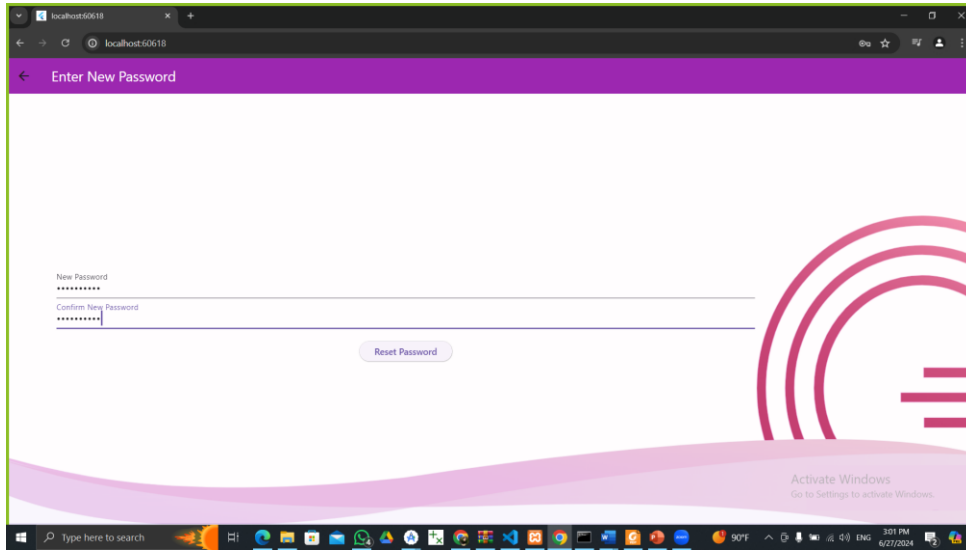


Figure 3-2-2- 6

## Sign Up Page:

### 1. User Sign up:

The user sign up page asks for the same as the mobile:

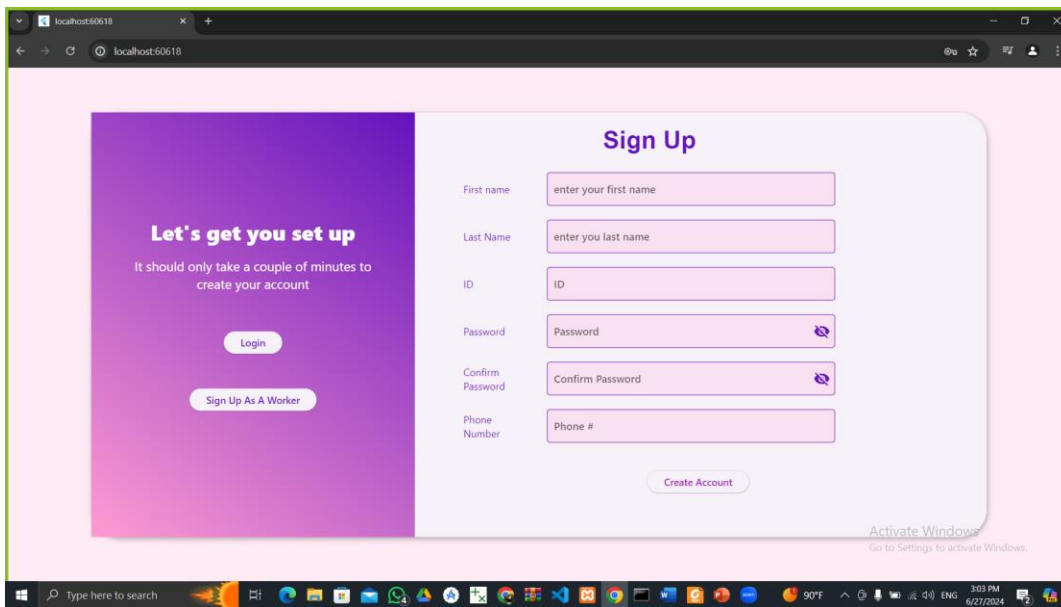


Figure 3-2-2- 7

### 2. Worker Sign Up:

If the user press on sign up as a worker he will be navigated to worker sign up page, he will be asked to choose which department he will work on, and to apply a work proof. The sign up as a worker will be considered a request, and will not be completed until the administrator review the request and accept it. Then the user will be considered a worker and can now sign in to his worker page and start working.

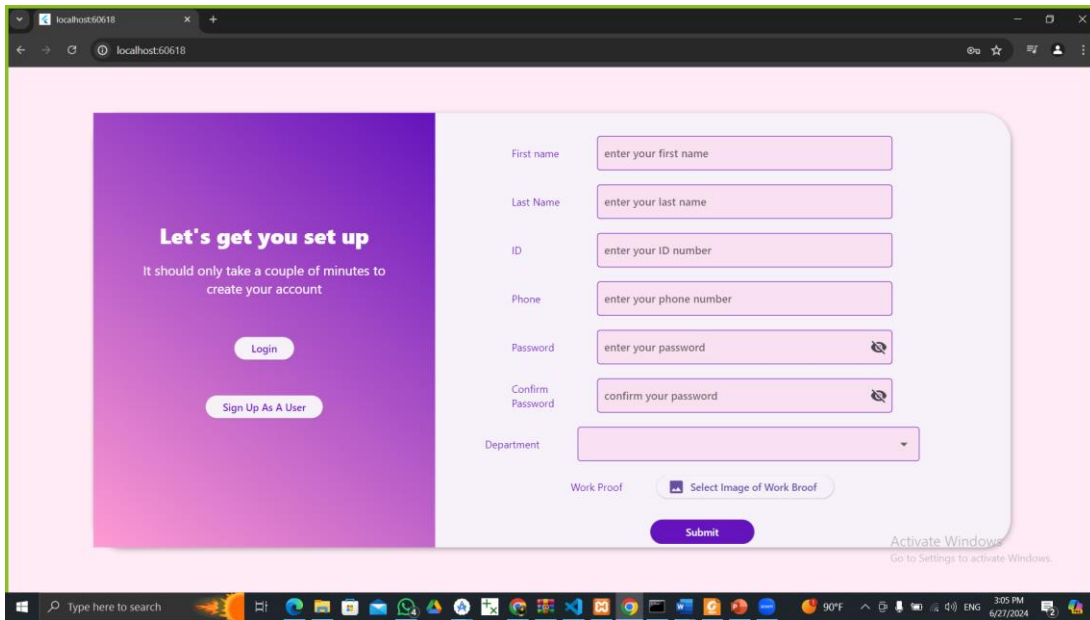


Figure 3-2-2- 8

### 3. User Side:

After the user sign in to the website, he will have the same features as the mobile, and can totally do the same, so for this part of the report, we will provide screenshots for the same things discussed in the mobile section above.

Home page:

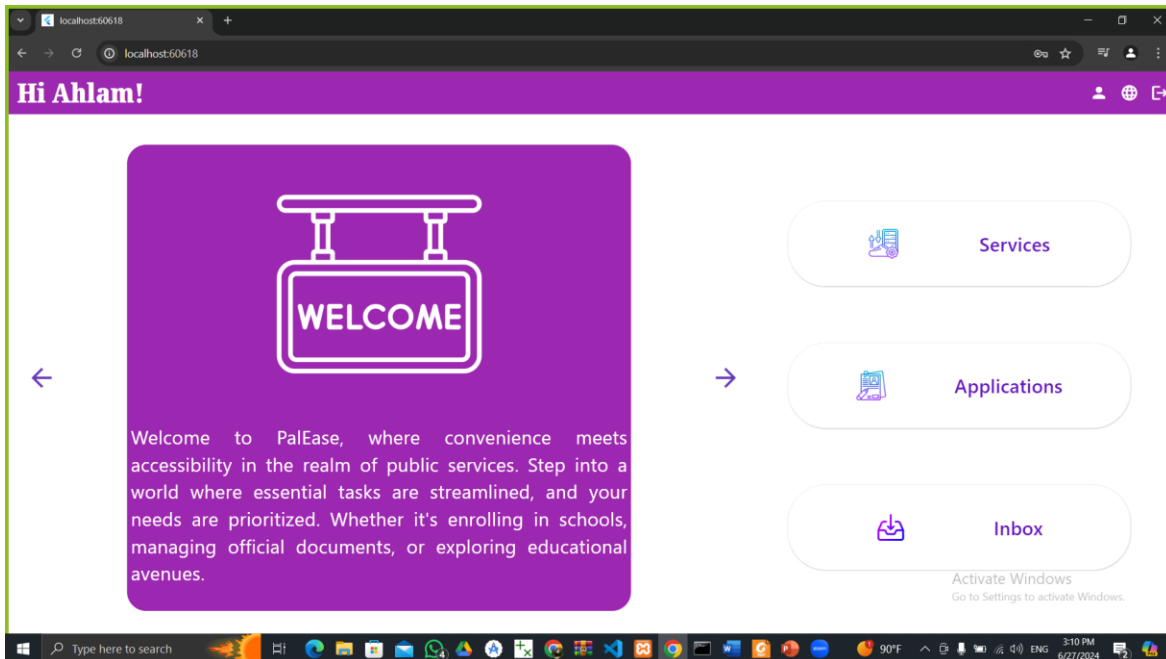


Figure 3-2-2- 9

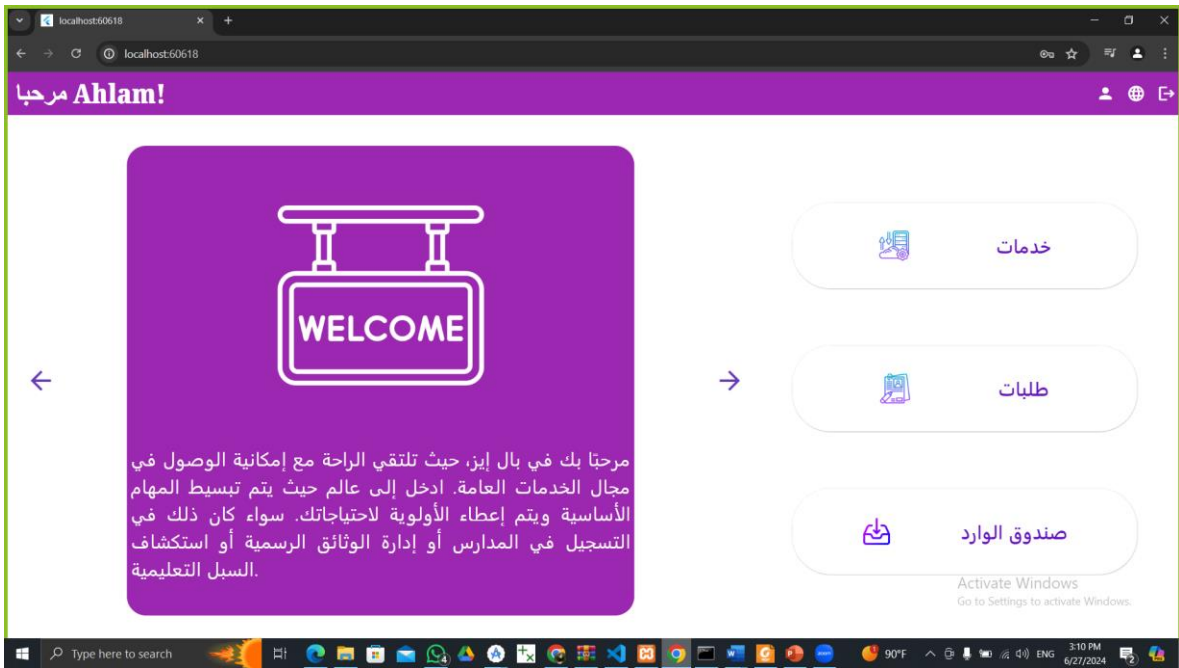


Figure 3-2-2- 10

Services Page:

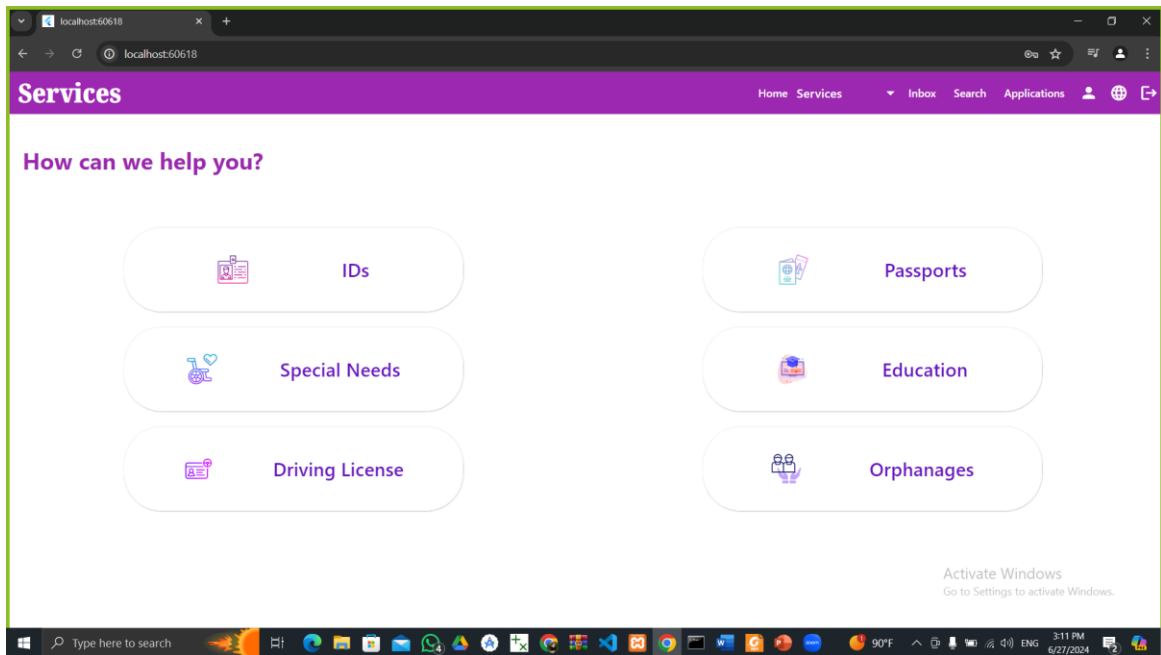


Figure 3-2-2- 11

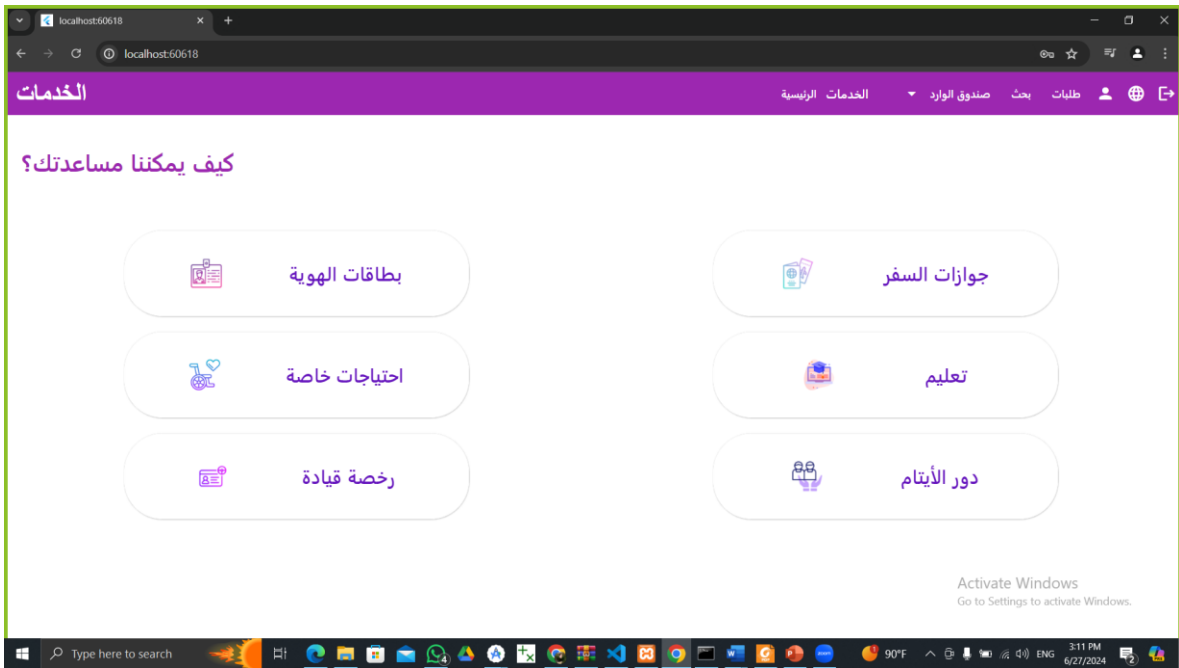


Figure 3-2-2- 12

ID Page:

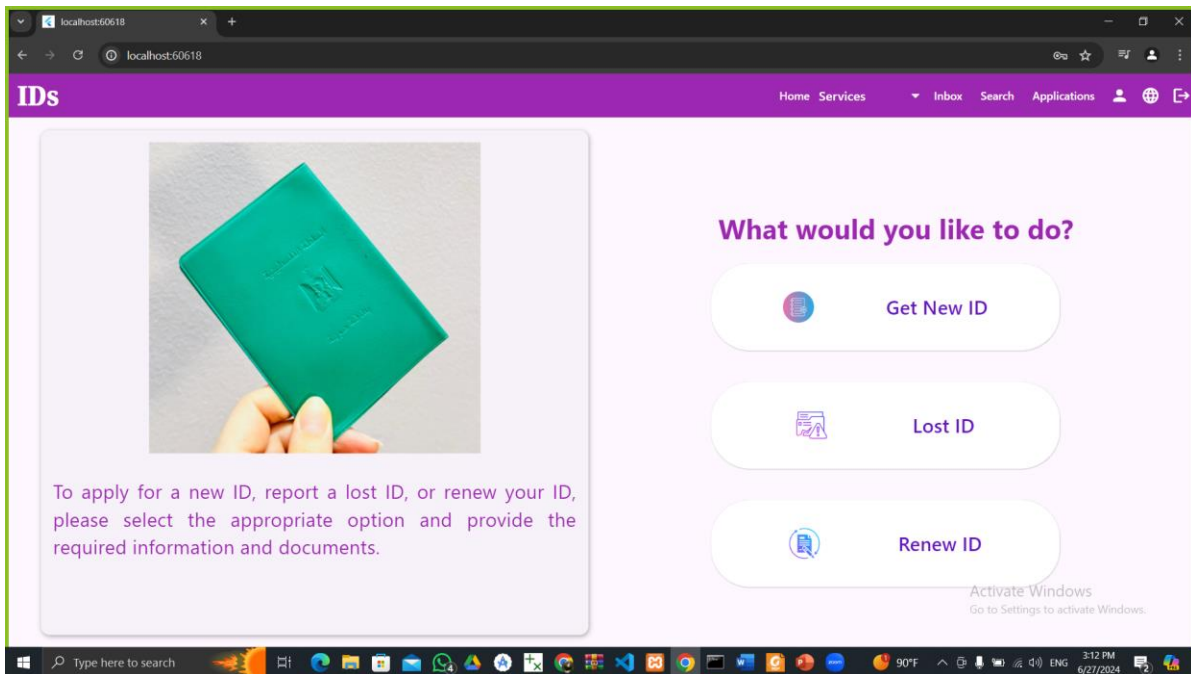


Figure 3-2-2- 13

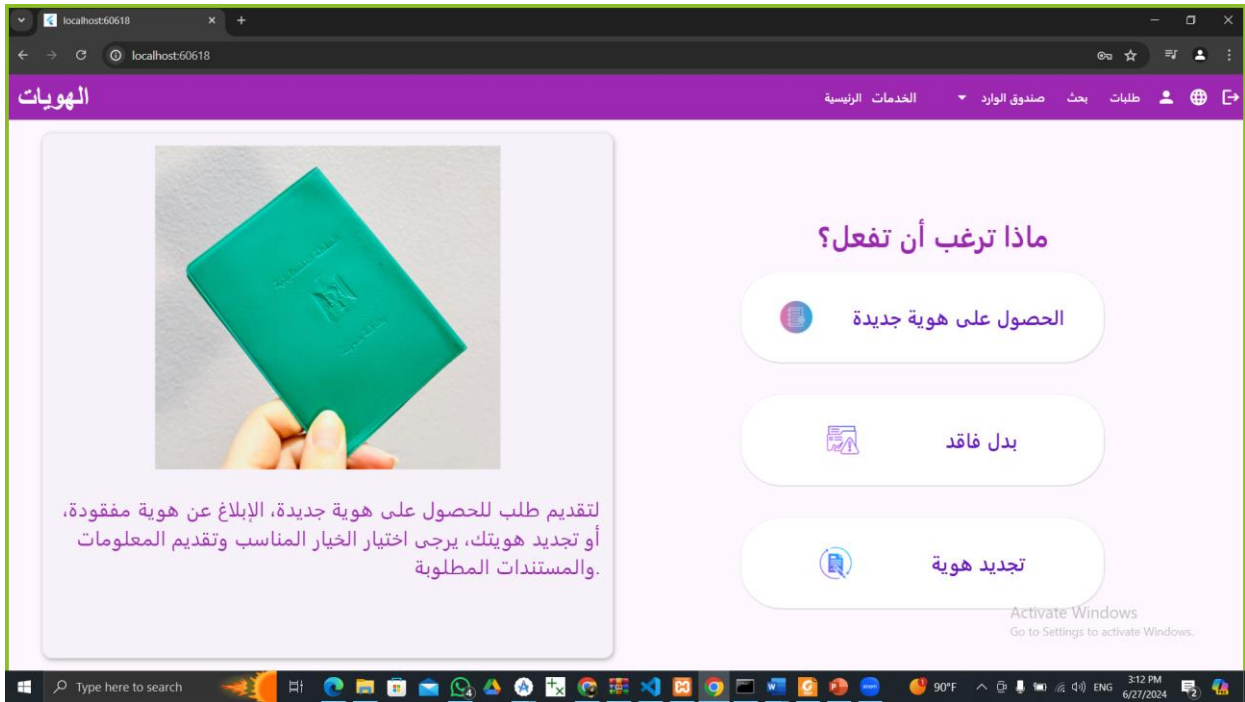


Figure 3-2-2- 14

For the mobile, we took screens of the New ID form , now lets take one for the lost ID.

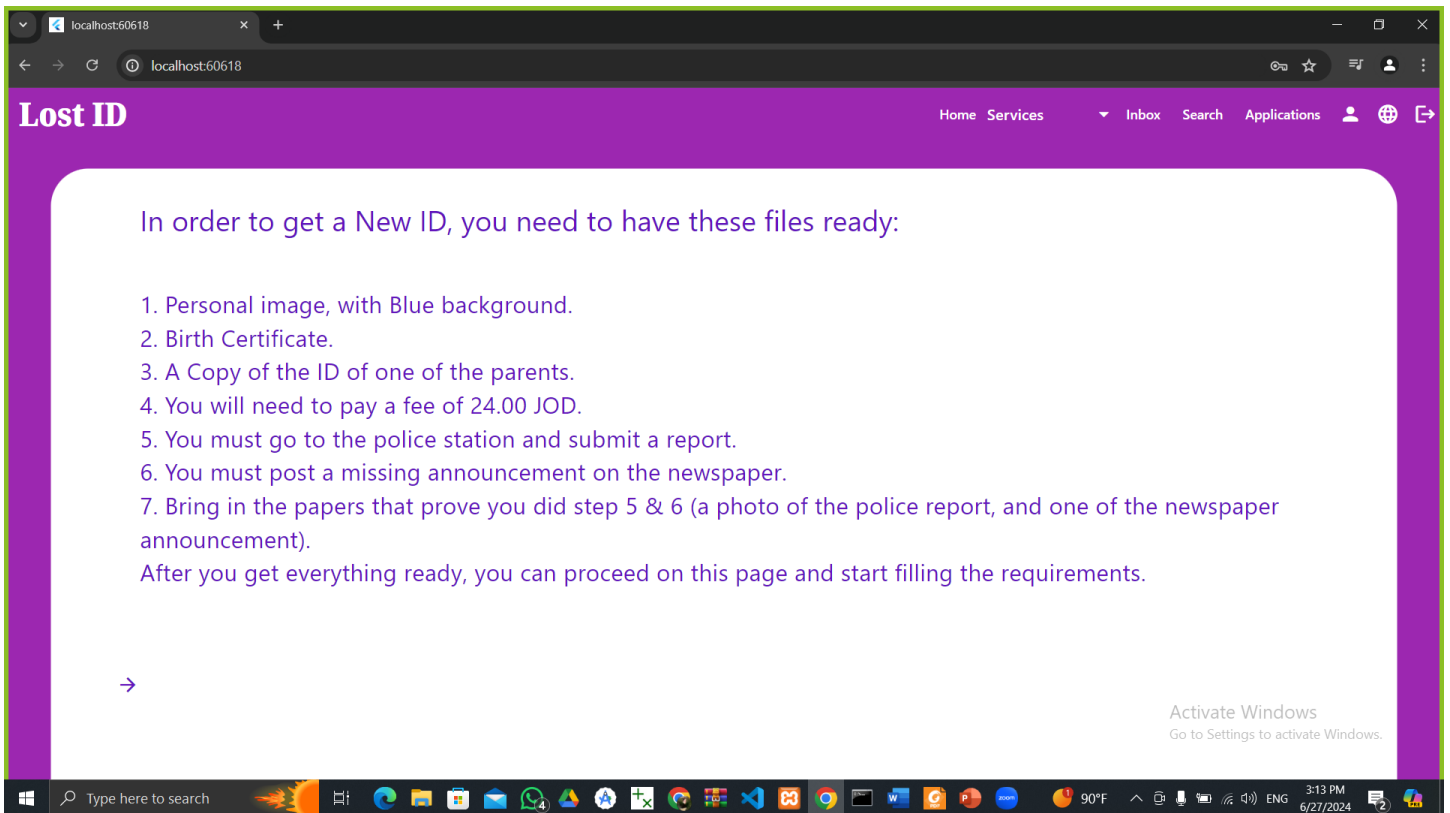


Figure 3-2-2- 15

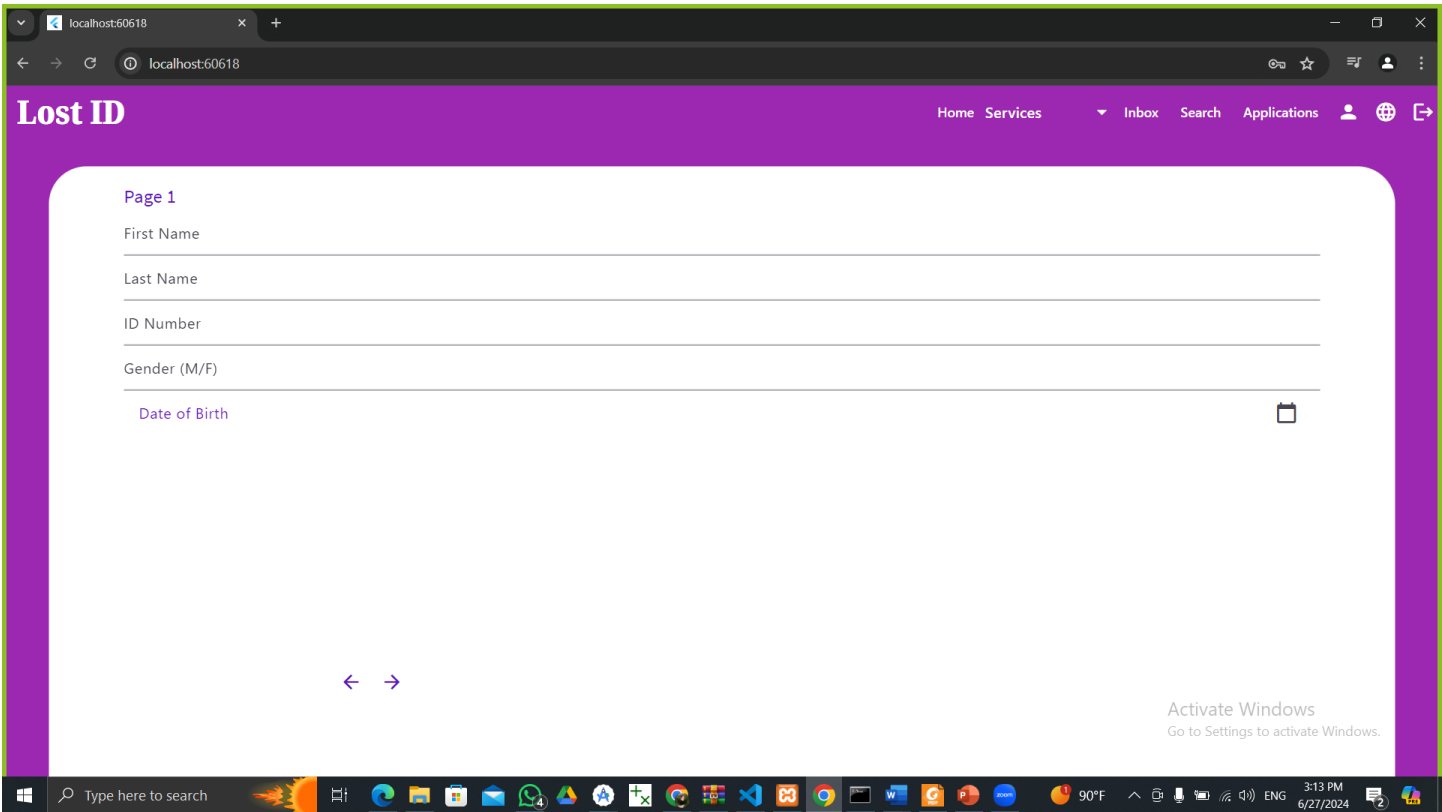


Figure 3-2-2- 16

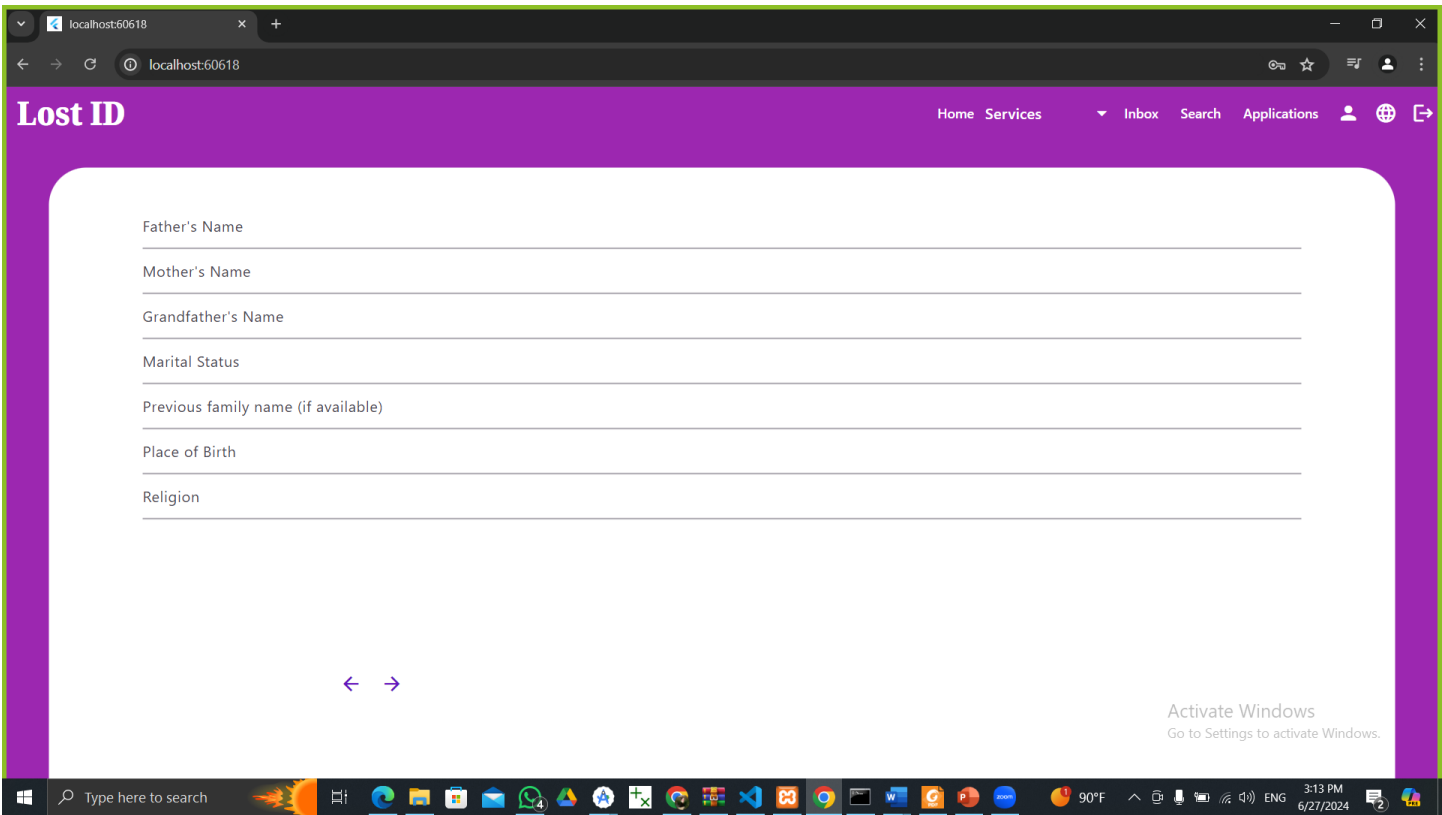


Figure 3-2-2- 17

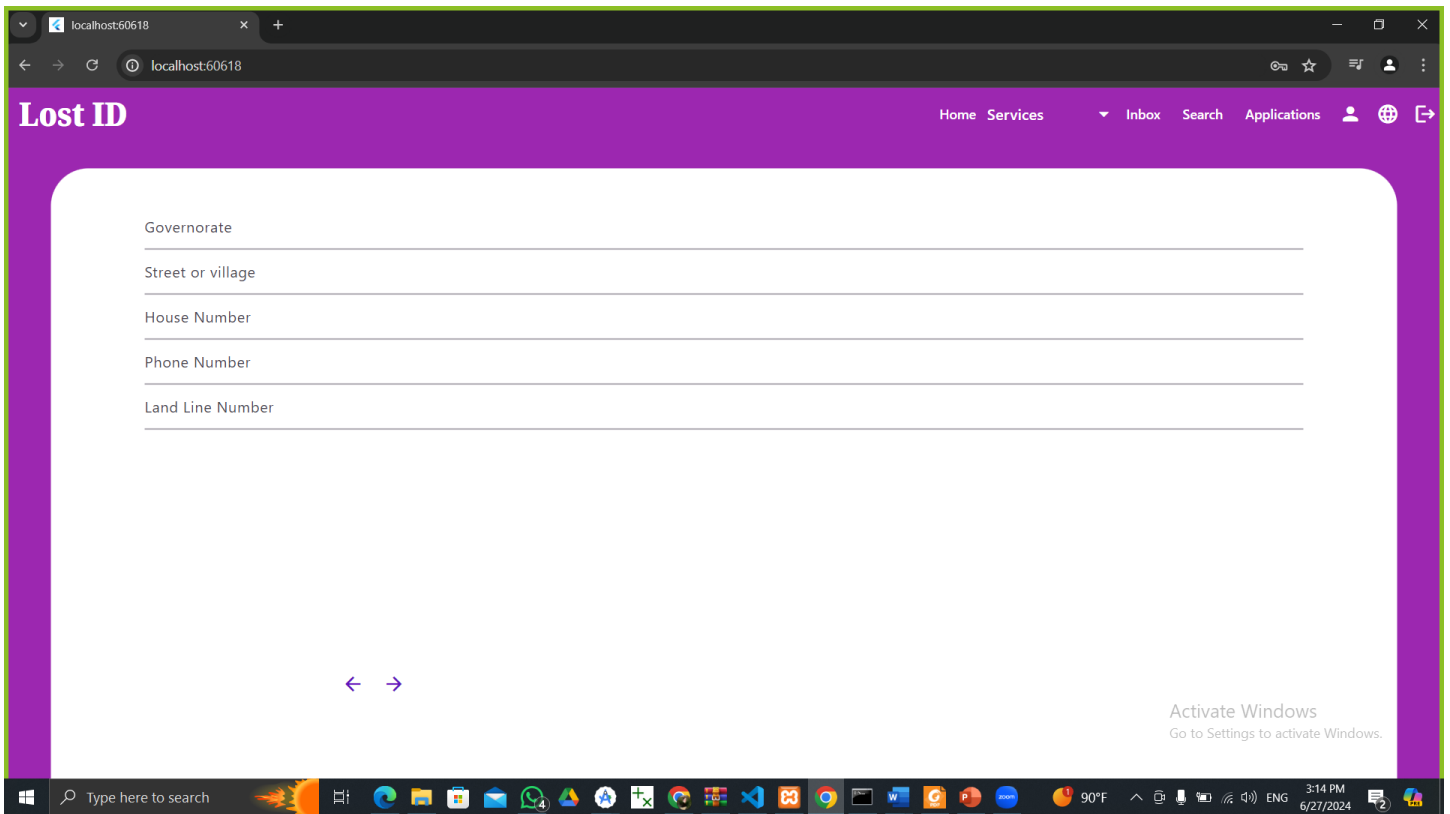


Figure 3-2-2- 18

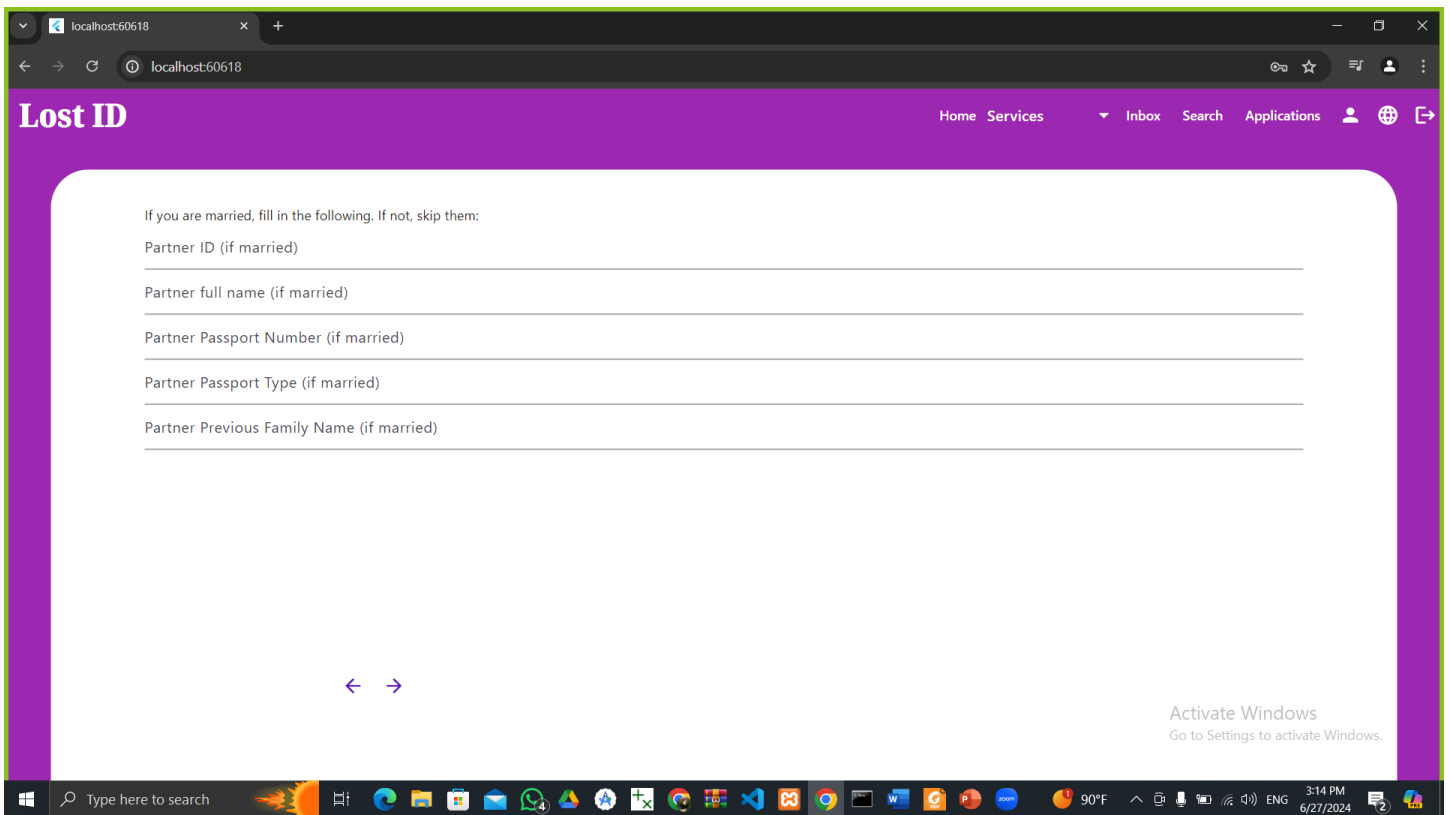


Figure 3-2-2- 19

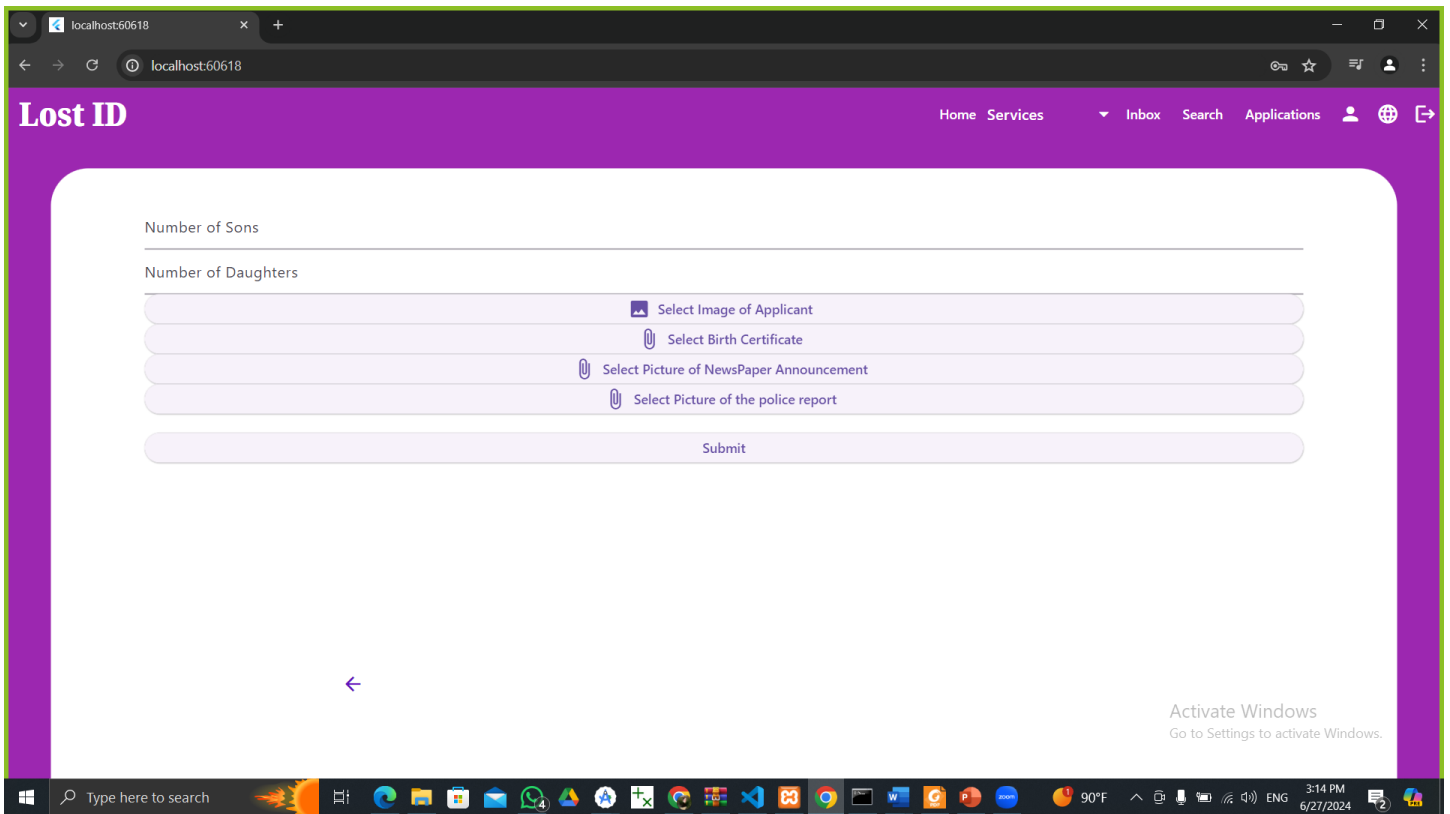


Figure 3-2-2- 20

For the Passports, lets take renew passport:

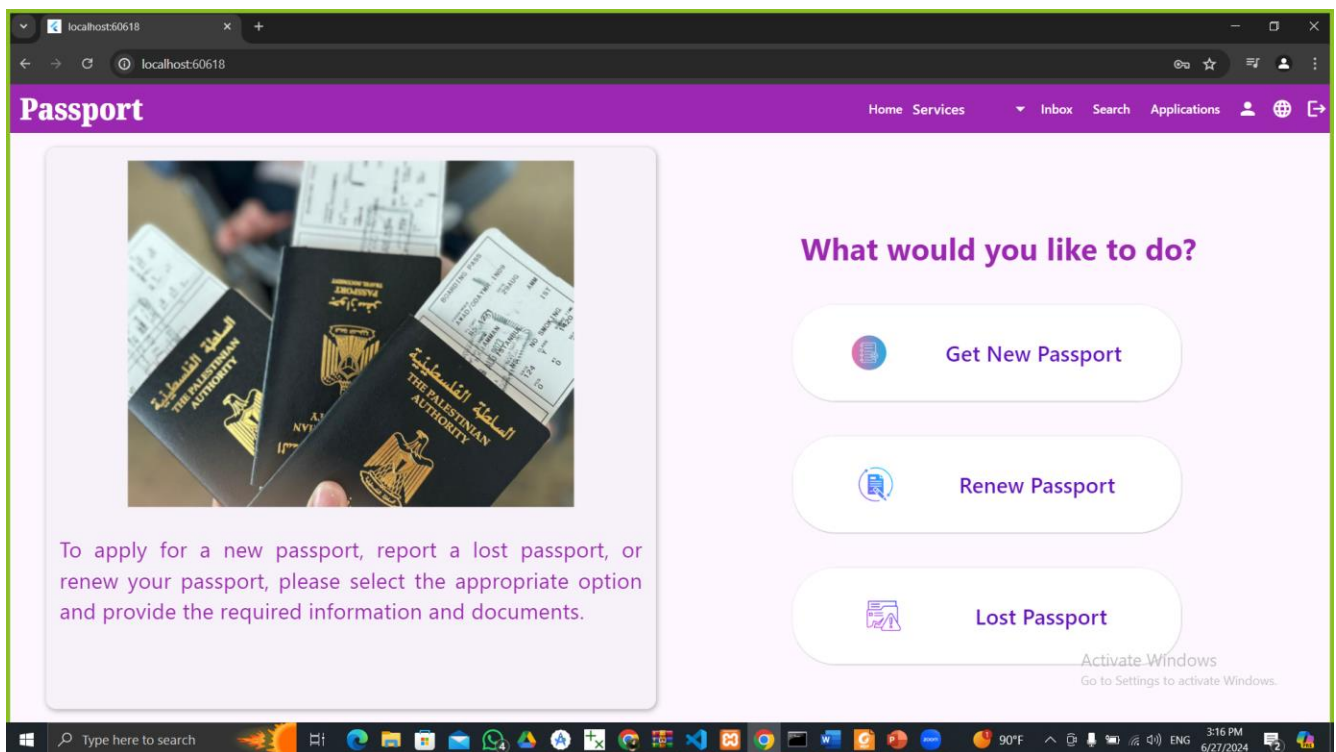


Figure 3-2-2- 21

localhost:60618

جواز السفر

الخدمات الرئيسية


صندوق الوارد

بحث

طلبات

المستخدم

الخروج



ماذا ترغب أن تفعل؟

اصدار جواز سفر جديد

تجديد جواز سفر

اصدار بدل فاقد

لتقديم طلب للحصول على جواز سفر جديد، الإبلاغ عن جواز سفر مفقود، أو تجديد جواز سفر، يرجى اختيار الخيار المناسب وتقديم المعلومات والمستندات المطلوبة.

Activate Windows  
Go to Settings to activate Windows.

Type here to search

90°F

3:16 PM  
6/27/2024

Figure 3-2-2- 22

localhost:60618

تجديد جواز السفر

الخدمات الرئيسية

صندوق الوارد

بحث

طلبات

المستخدم

الخروج

حتى تستطيع ان تباشر بتجديد جواز سفر، يجب ان يكون لديك الملفات الاتية

اولا: صورة شخصية بخلفية زرقاء

ثانيا: صورة عن شهادة الميلاد

ثالثا: موافقة من الاب بحال كان مقدم الطلب اقل من 18 سنة

رابعا: اثبات مهنة اذا كان عمرك اكبر من 18

خامسا: موافقة مدير الدائرة اذا كنت ترغب بتجديد جواز سفر، وهو صالح لاكثر من 6 اشهر

سادسا: عندما تذهب لمبنى الجوازات حتى تستلم جواز سفر، احضر جواز السفر القديم سيكون عليك دفع رسوم 35 دينار اردني عند تقديم الطلب

بعد ان يكون كل شيء جاهزا لديك يمكنك المباشرة بتقديم الطلب

→

Activate Windows  
Go to Settings to activate Windows.

Type here to search

90°F

3:16 PM  
6/27/2024

Figure 3-2-2- 23

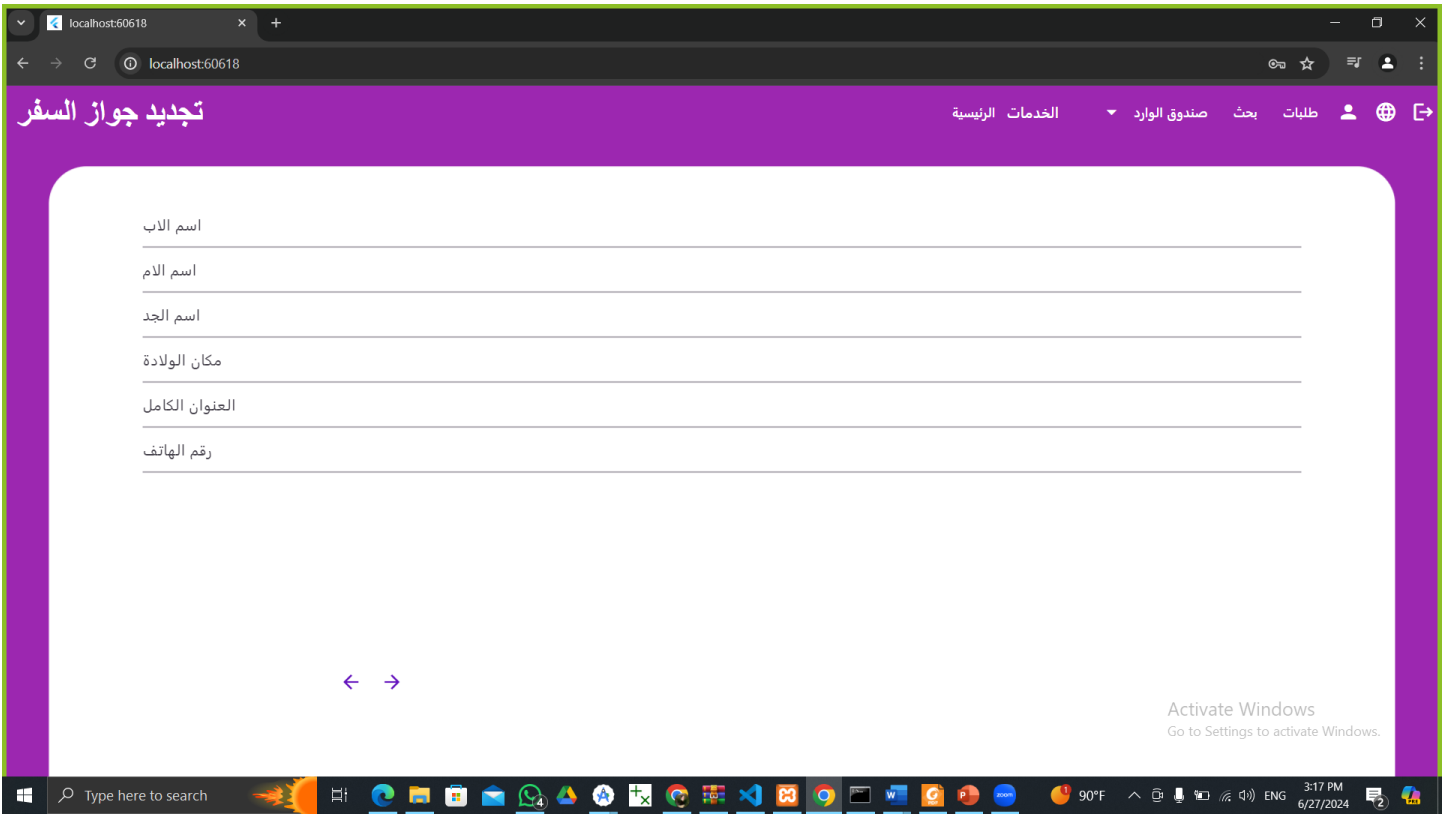


Figure 3-2-2- 24

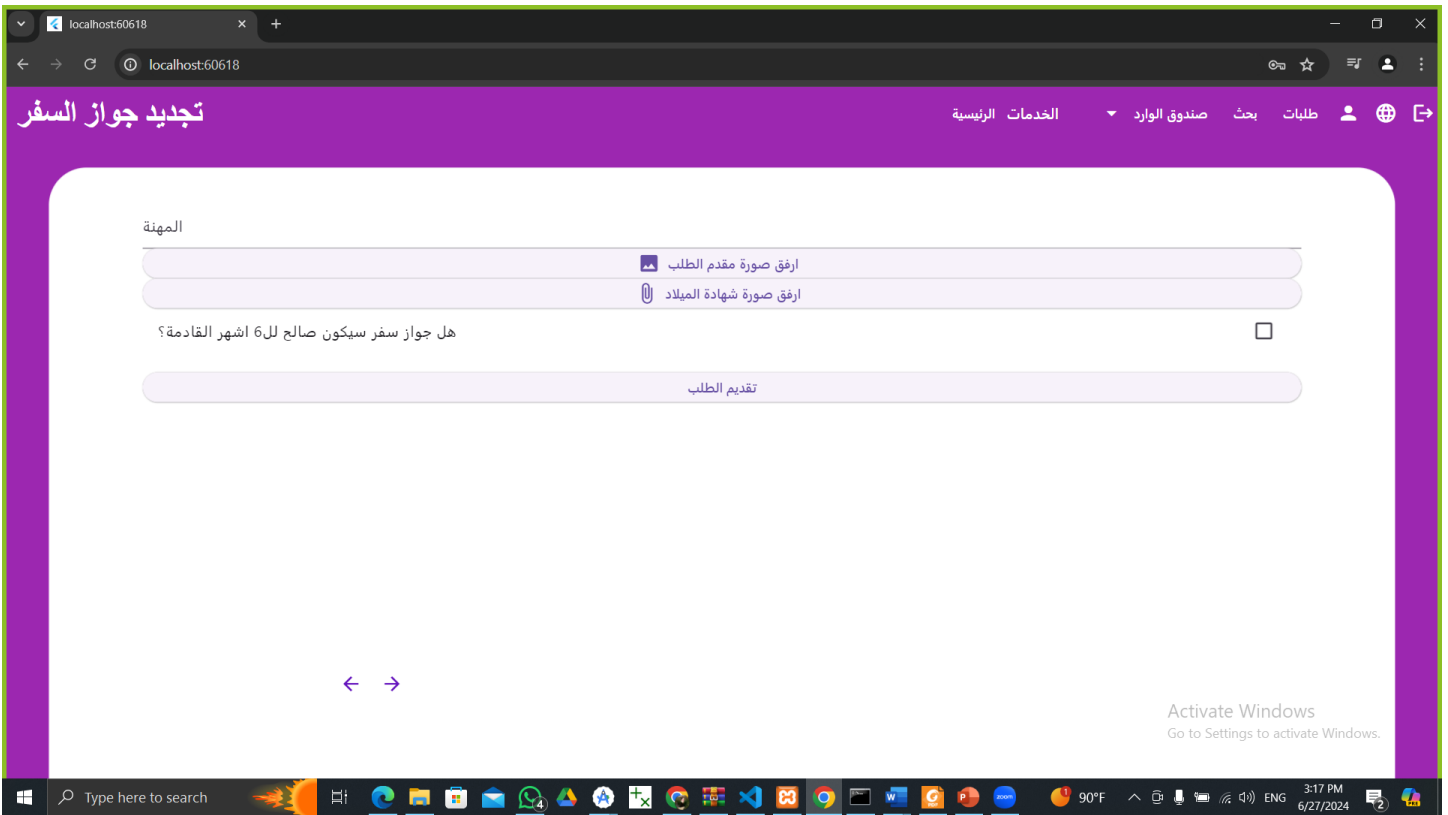


Figure 3-2-2- 25

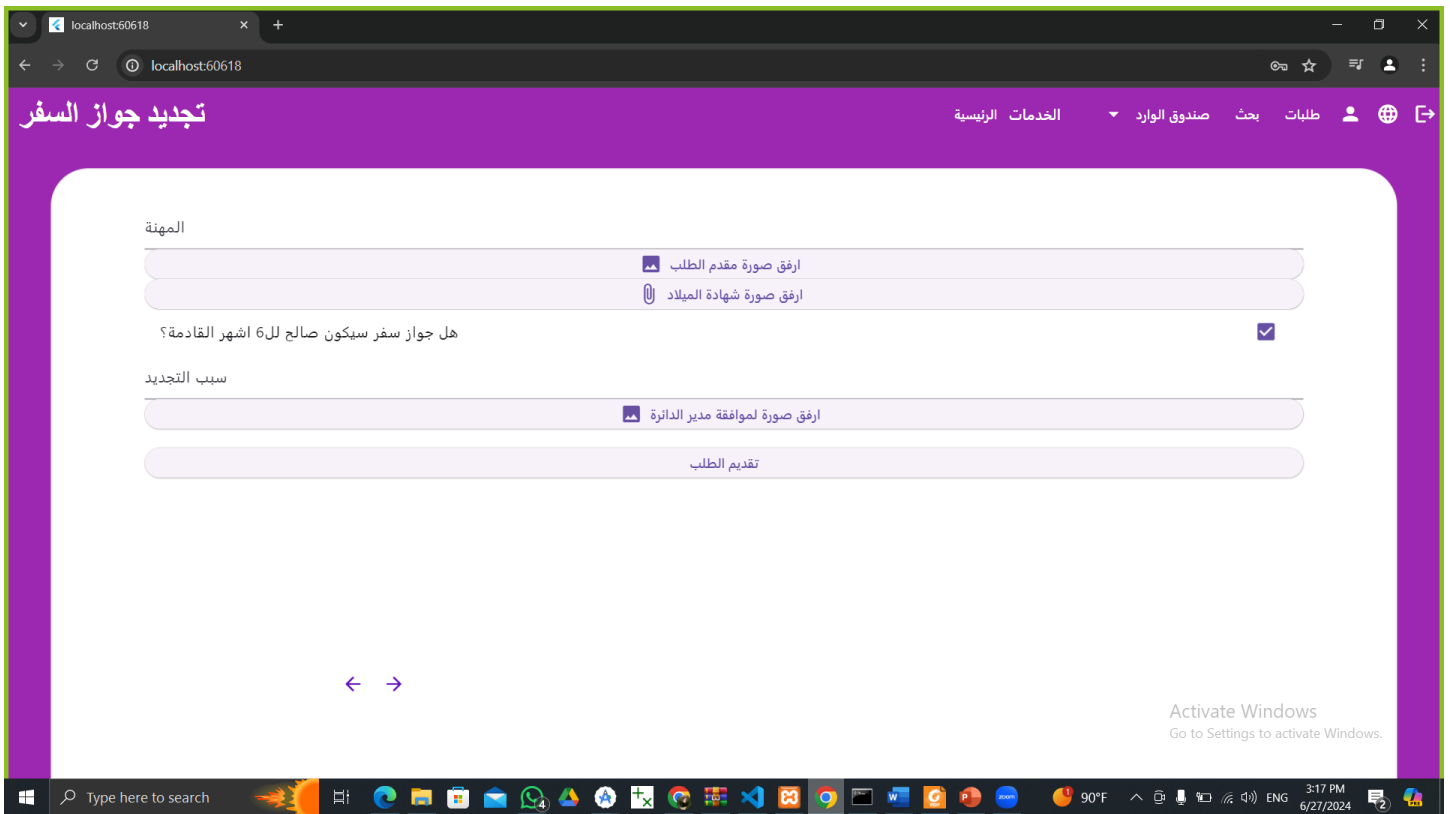


Figure 3-2-2- 26

For the Driving License lets take the Renew license form:

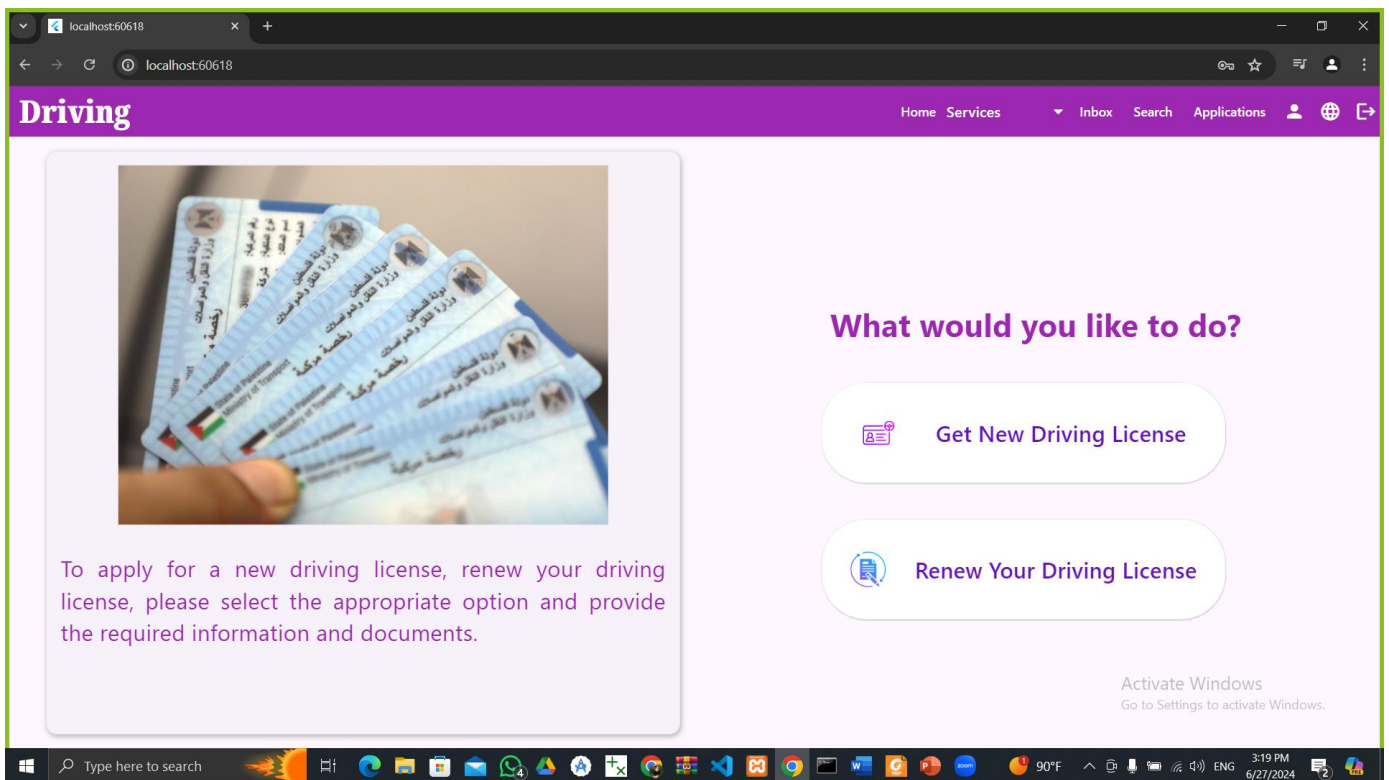


Figure 3-2-2- 27

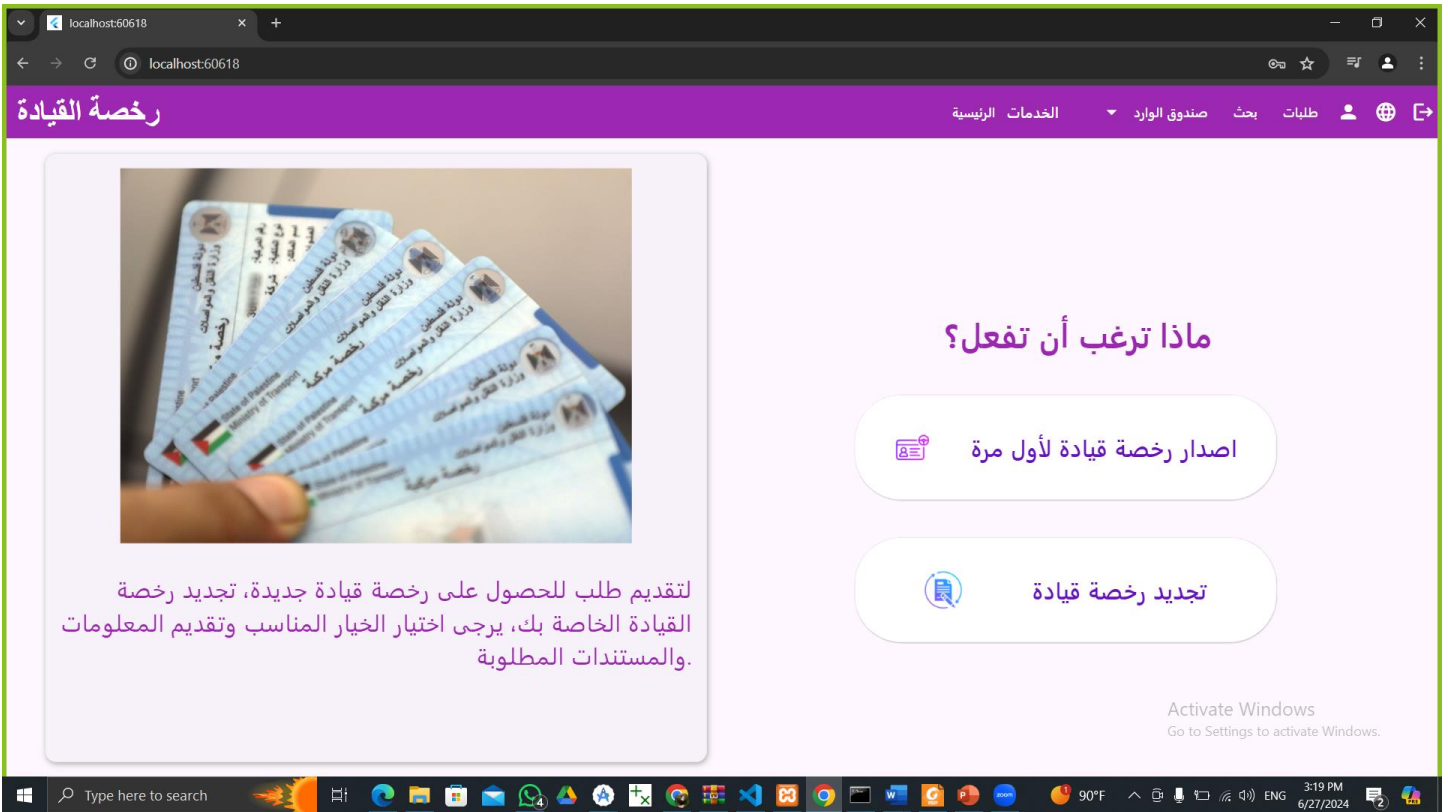


Figure 3-2-2- 28

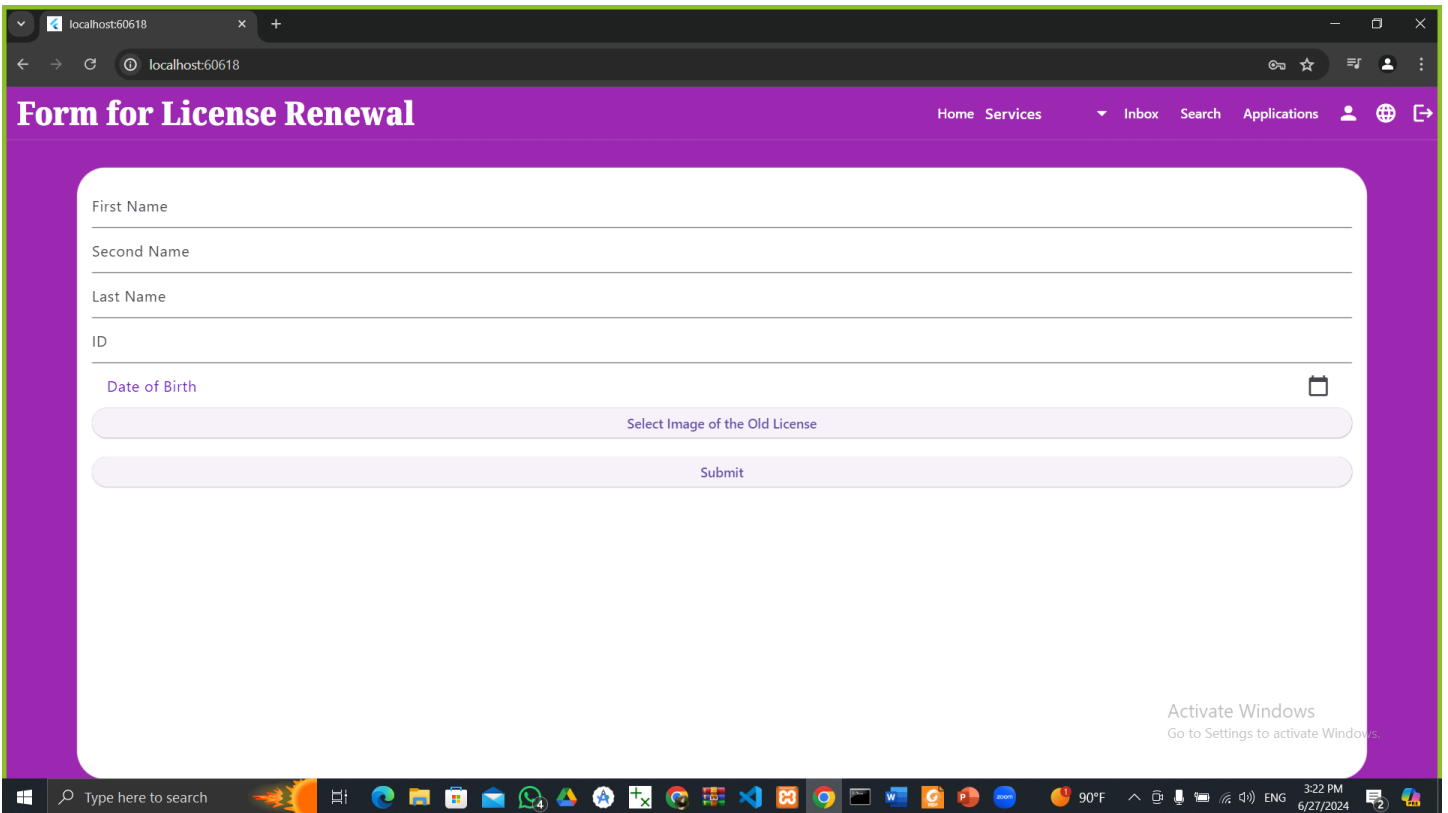


Figure 3-2-2- 29

Education:

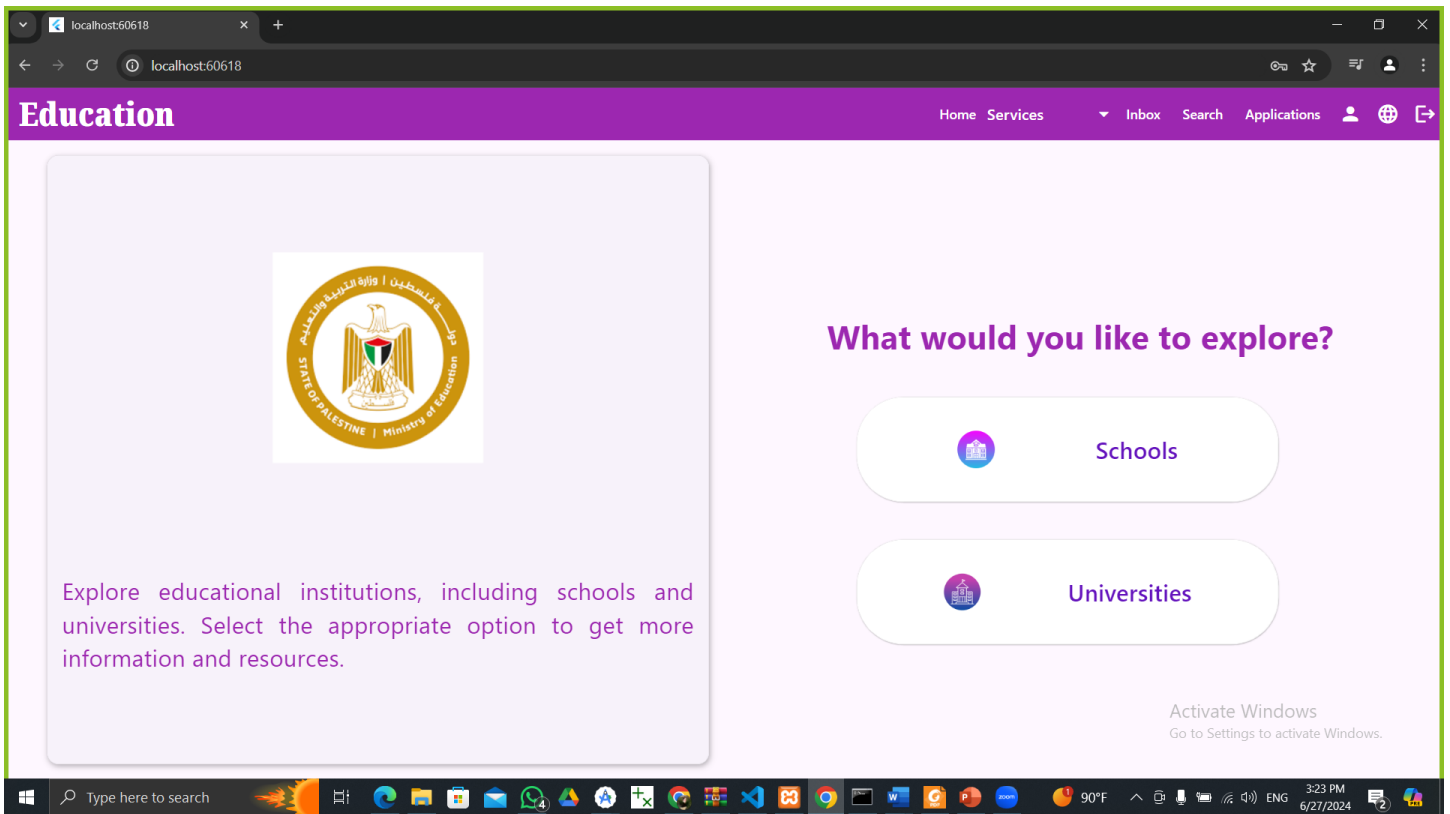


Figure 3-2-2- 30

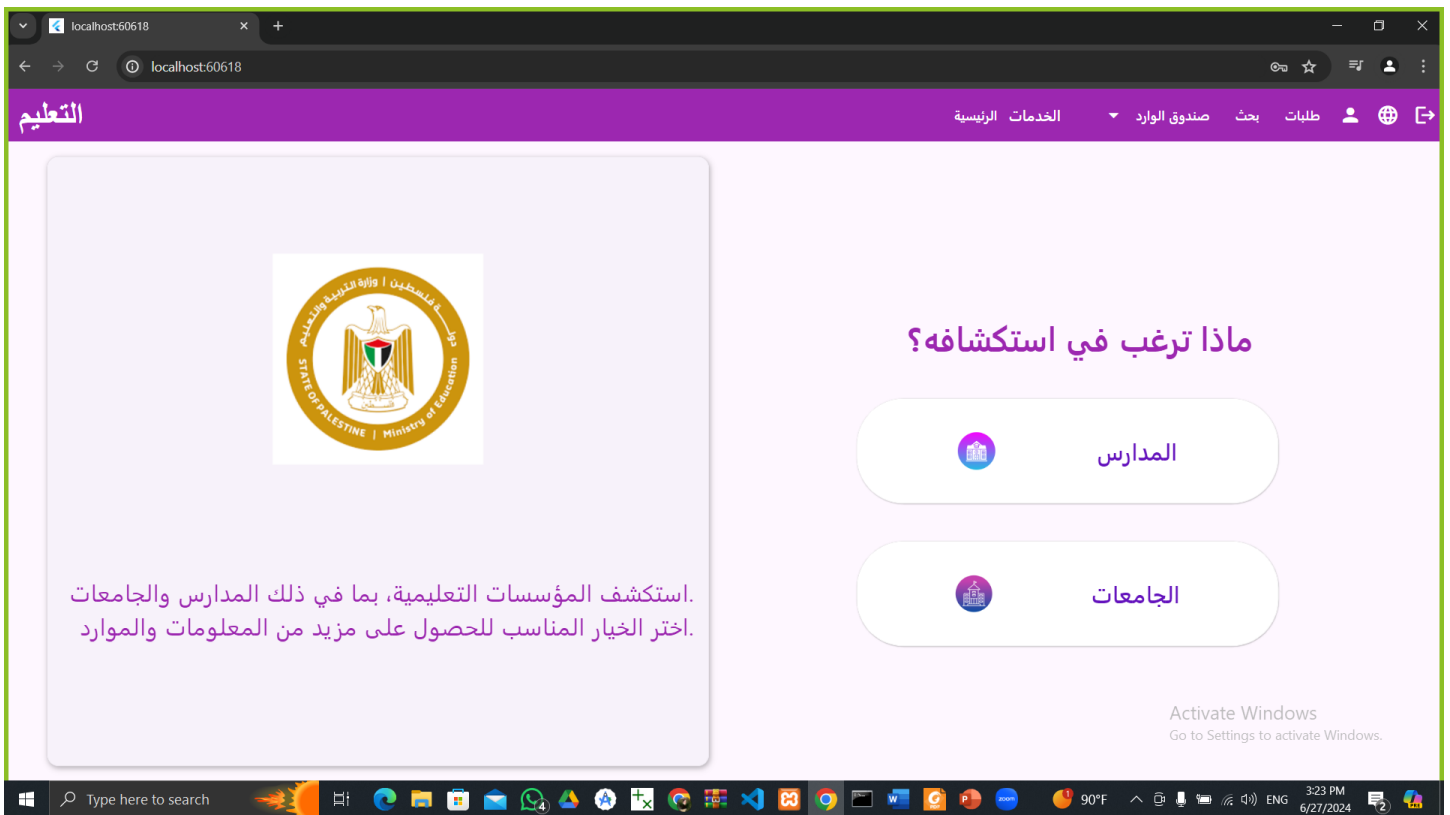


Figure 3-2-2- 31

Schools:

It is the same as the mobile with the same filtering system:

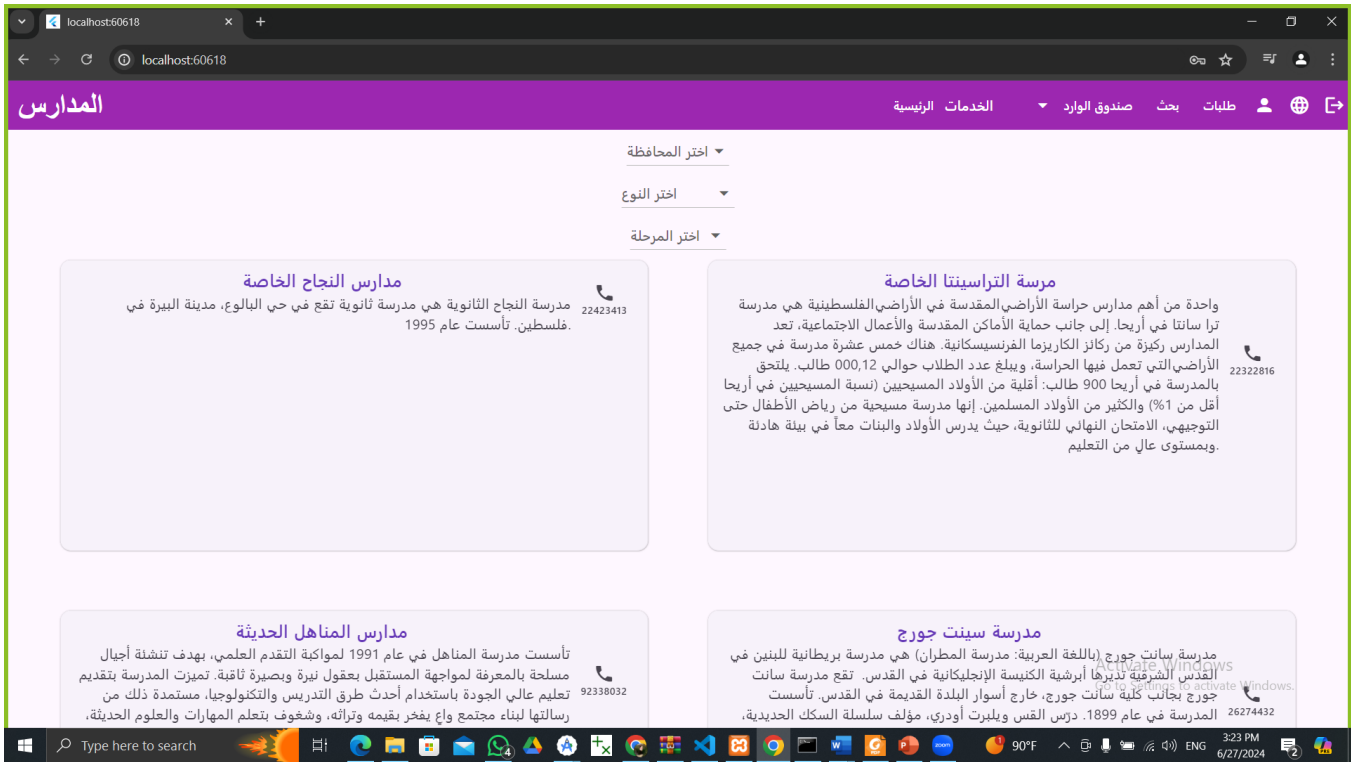


Figure 3-2-2- 32

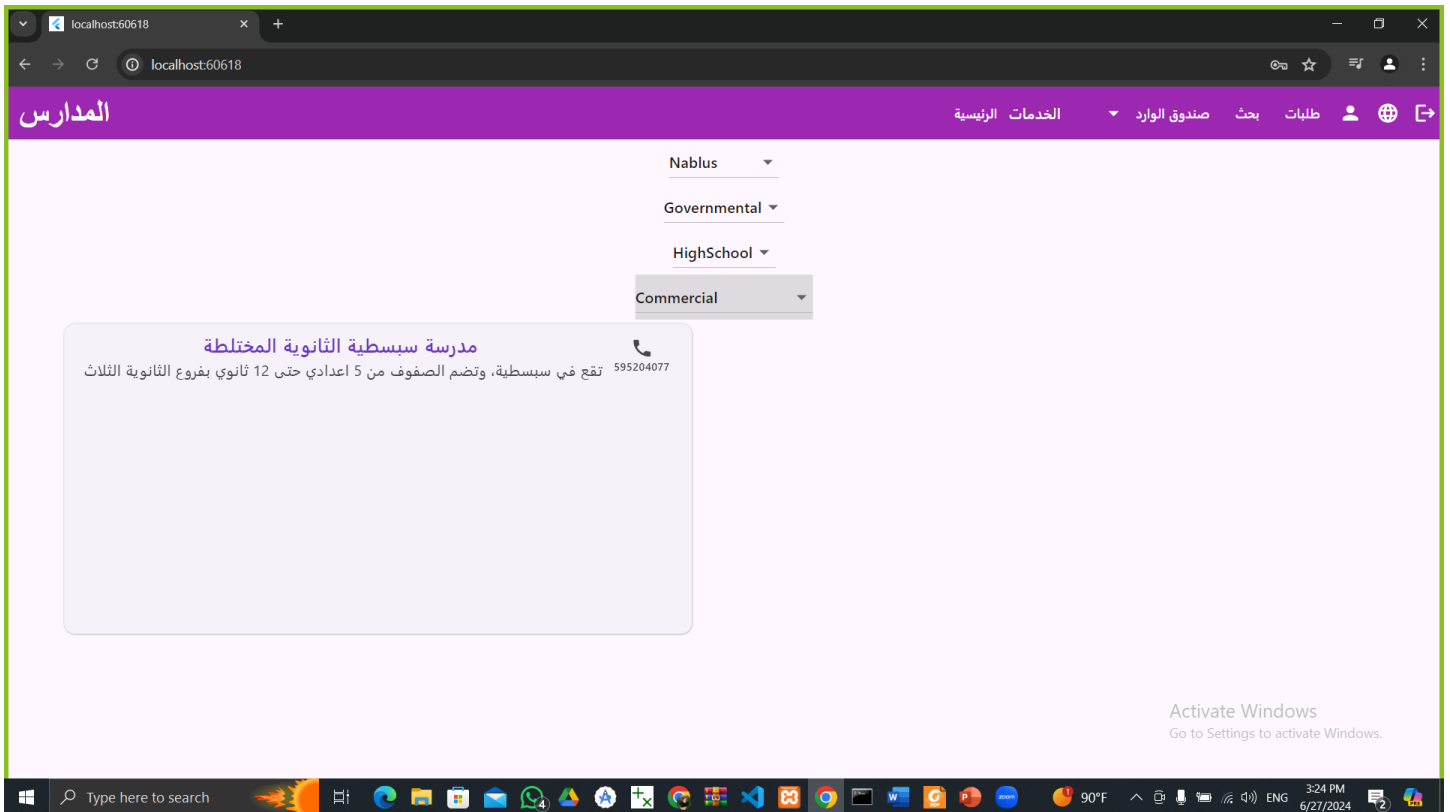


Figure 3-2-2- 33

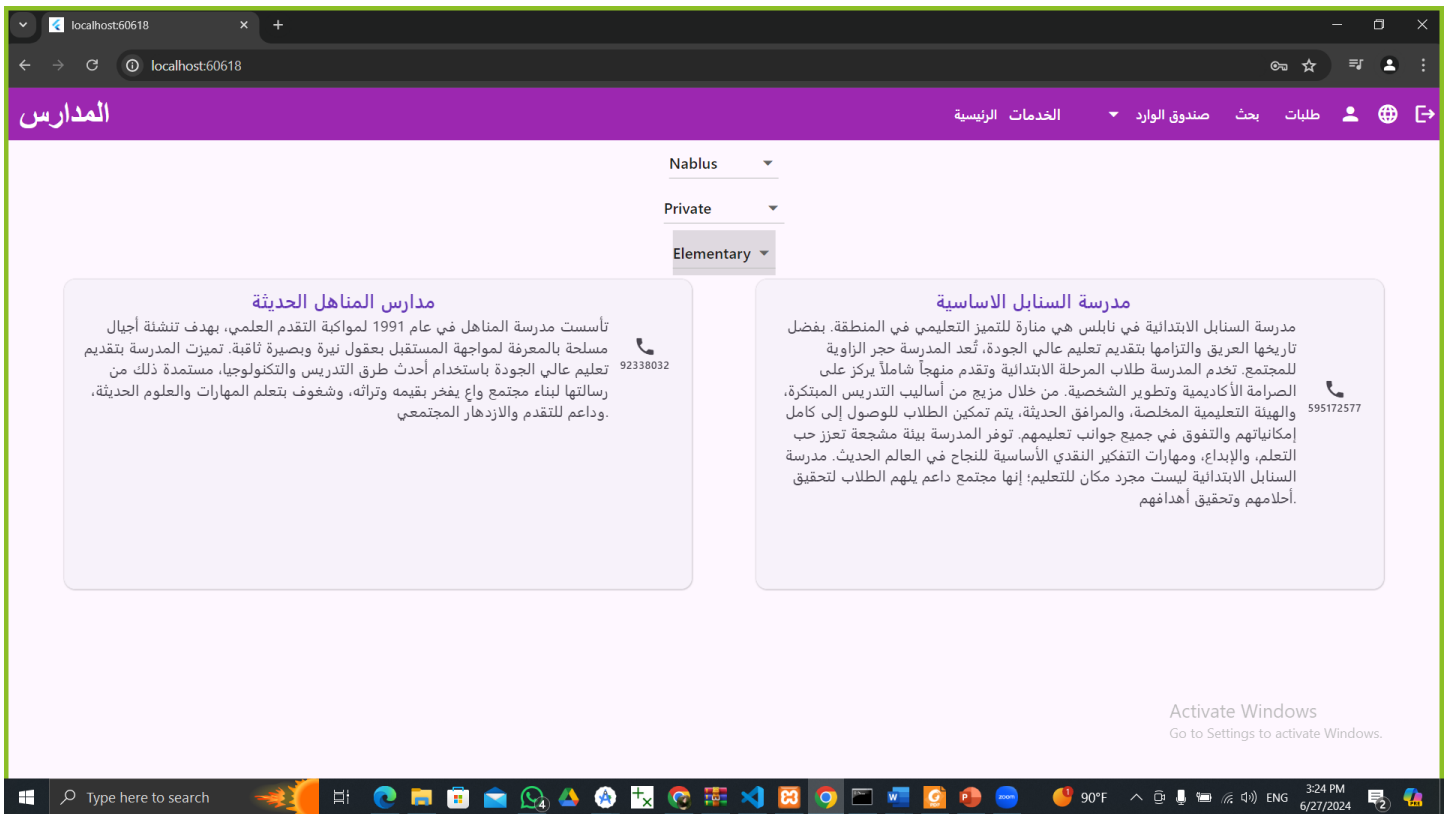


Figure 3-2-2- 34

Universities:

It is also the same as the mobile app:

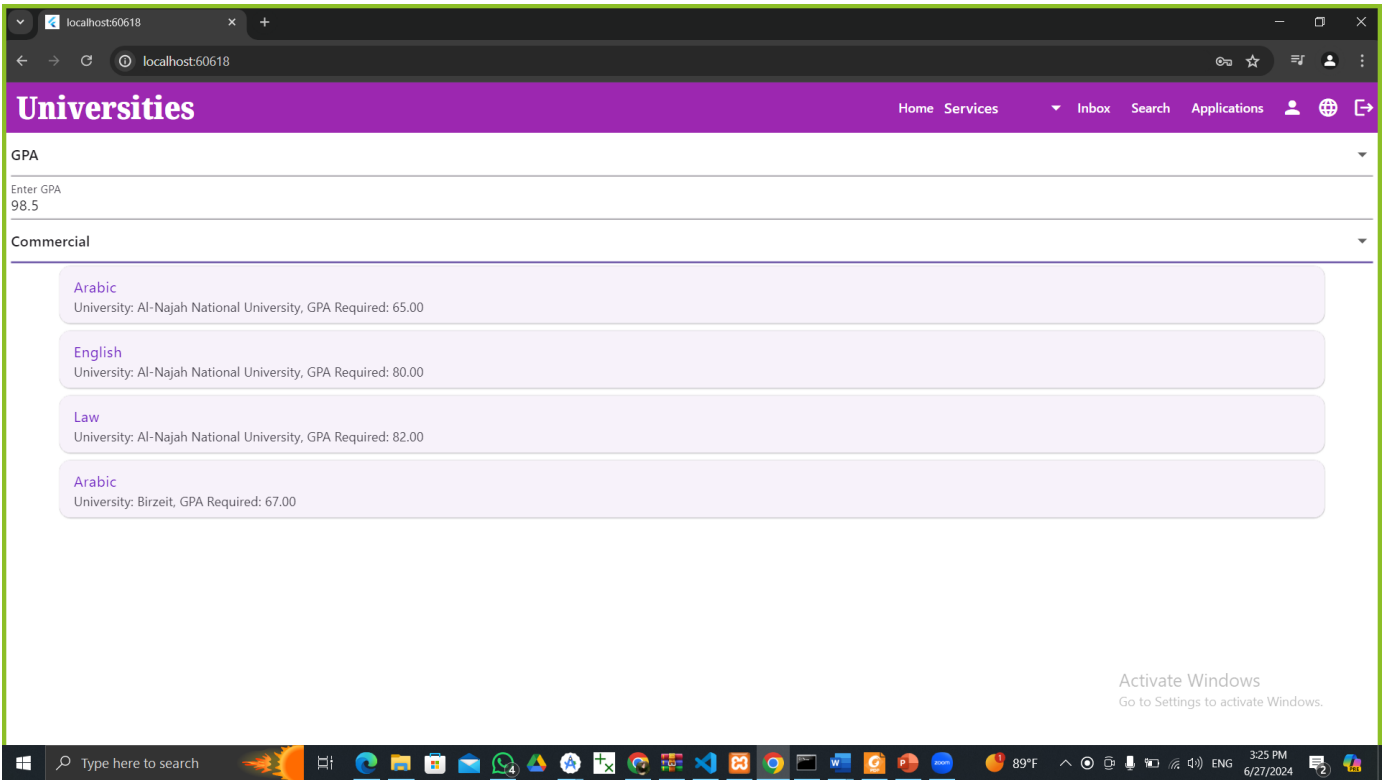


Figure 3-2-2- 35

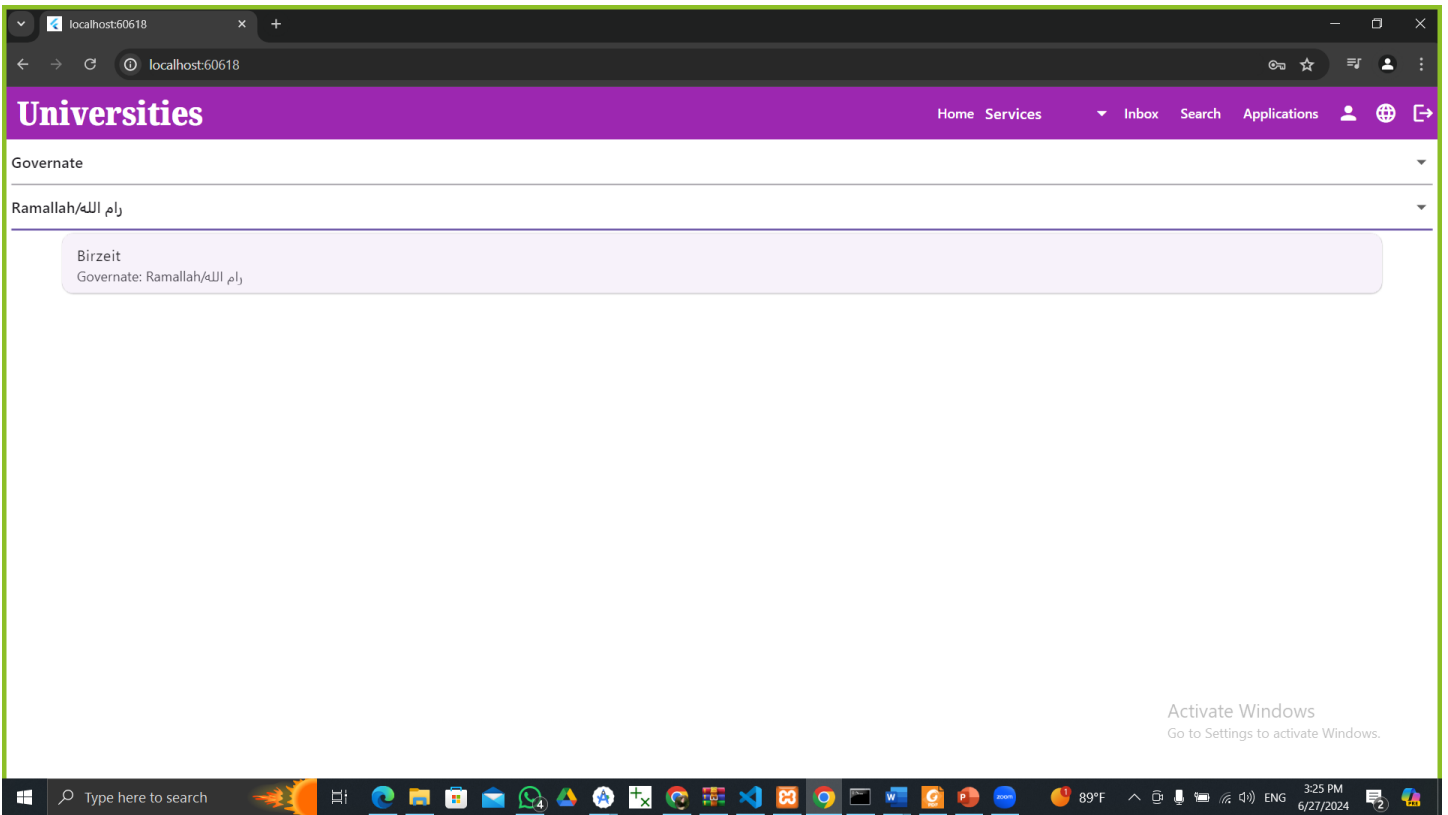


Figure 3-2-2- 36

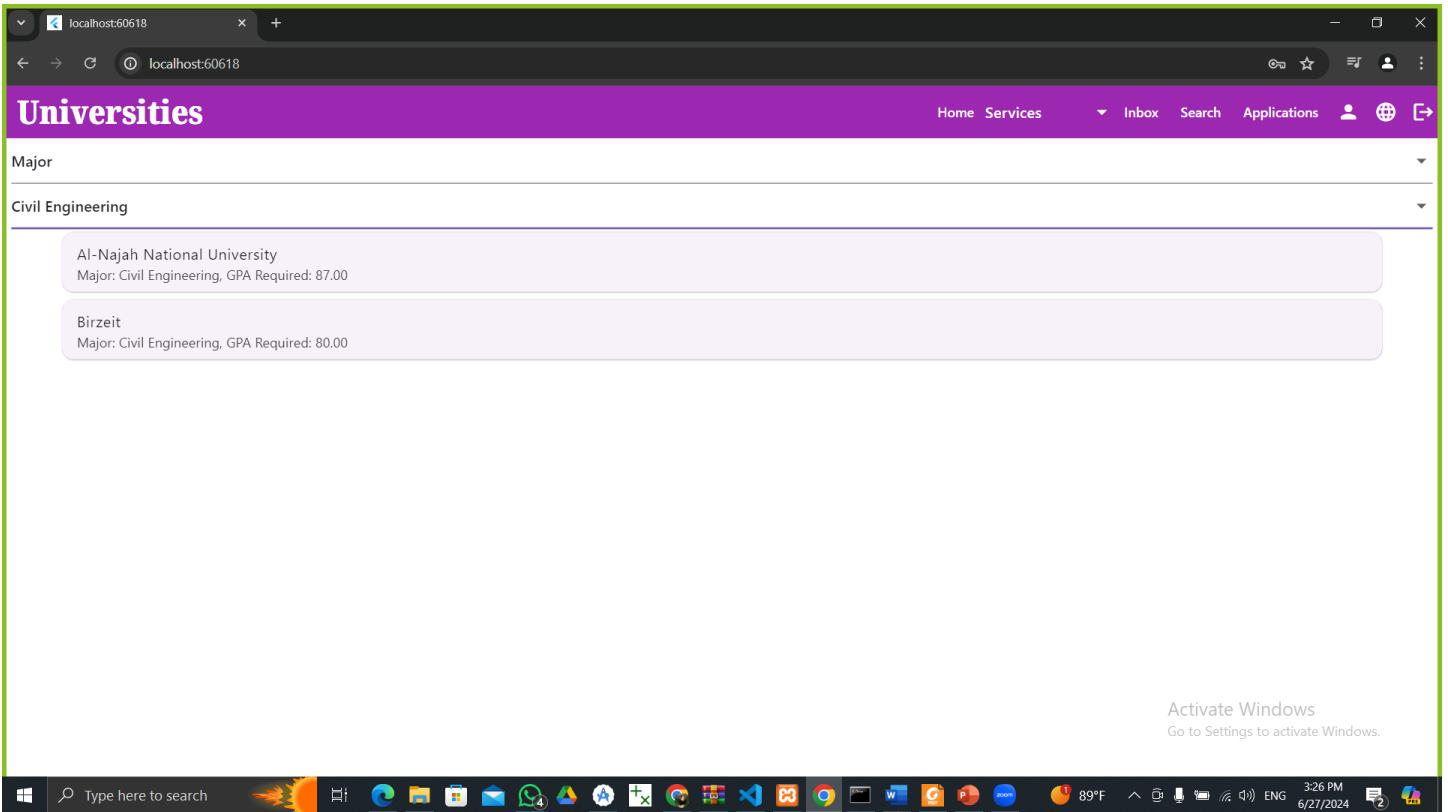


Figure 3-2-2- 37

Special Needs:

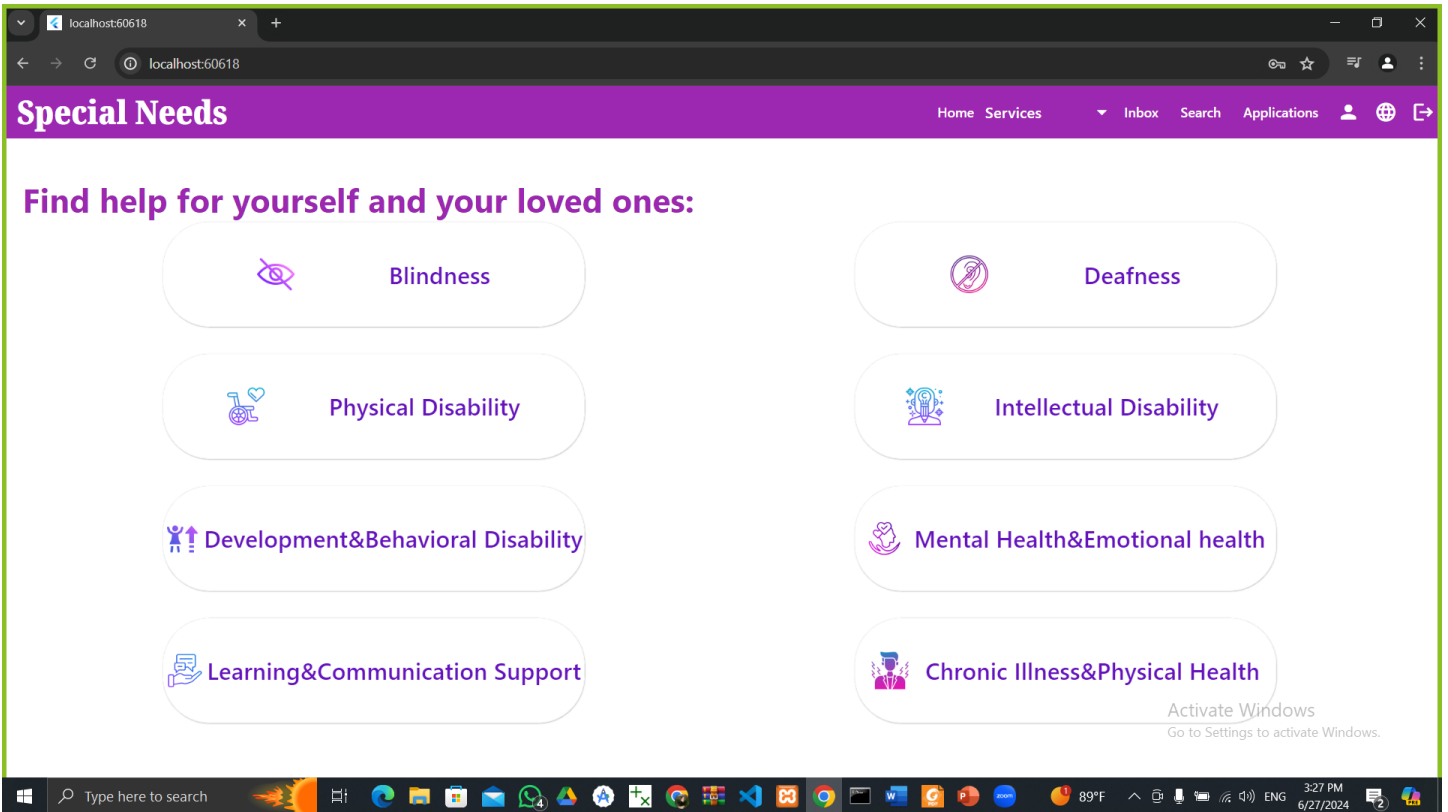


Figure 3-2-2- 38

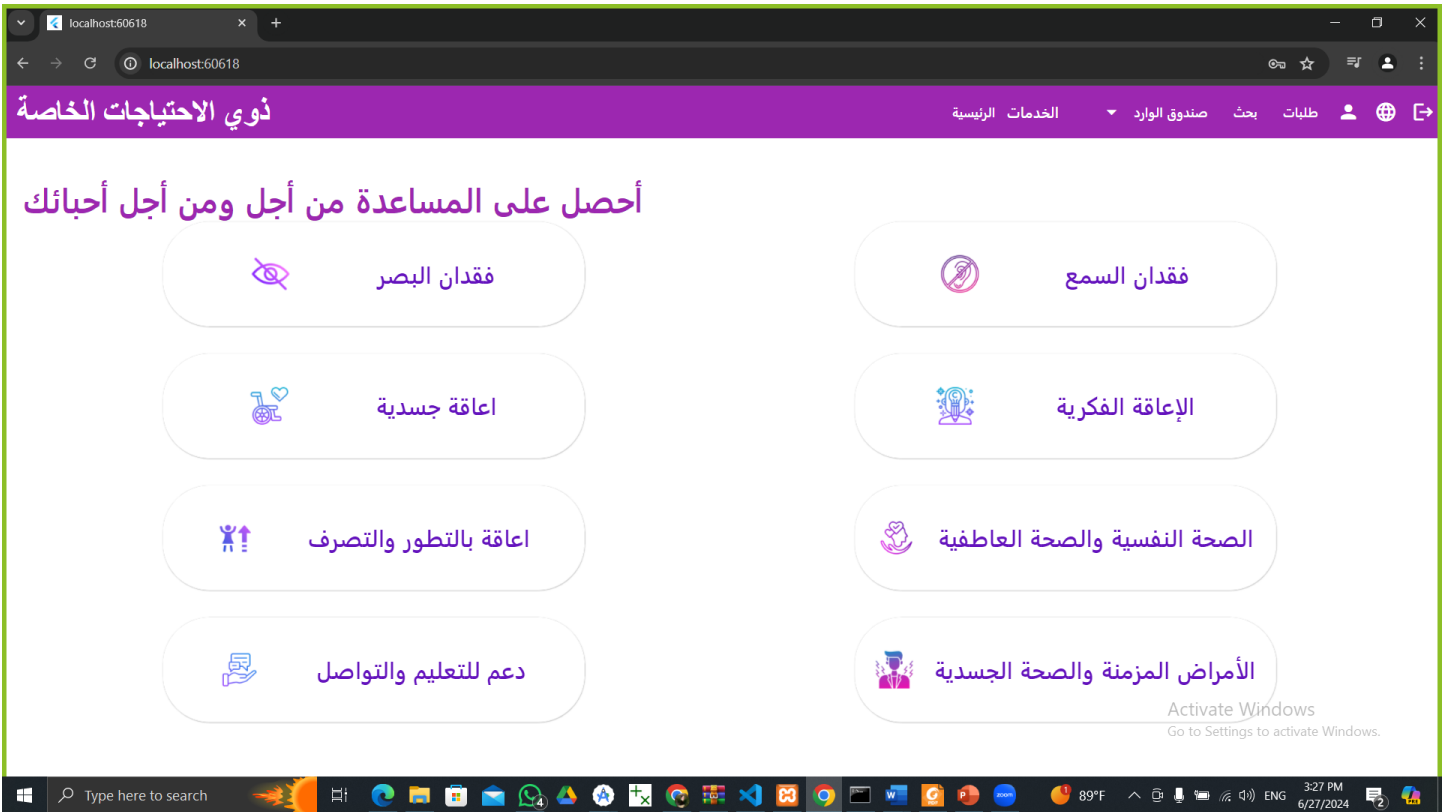


Figure 3-2-2- 39

In the mobile app we saw the physical disability, here lets choose the blindness:

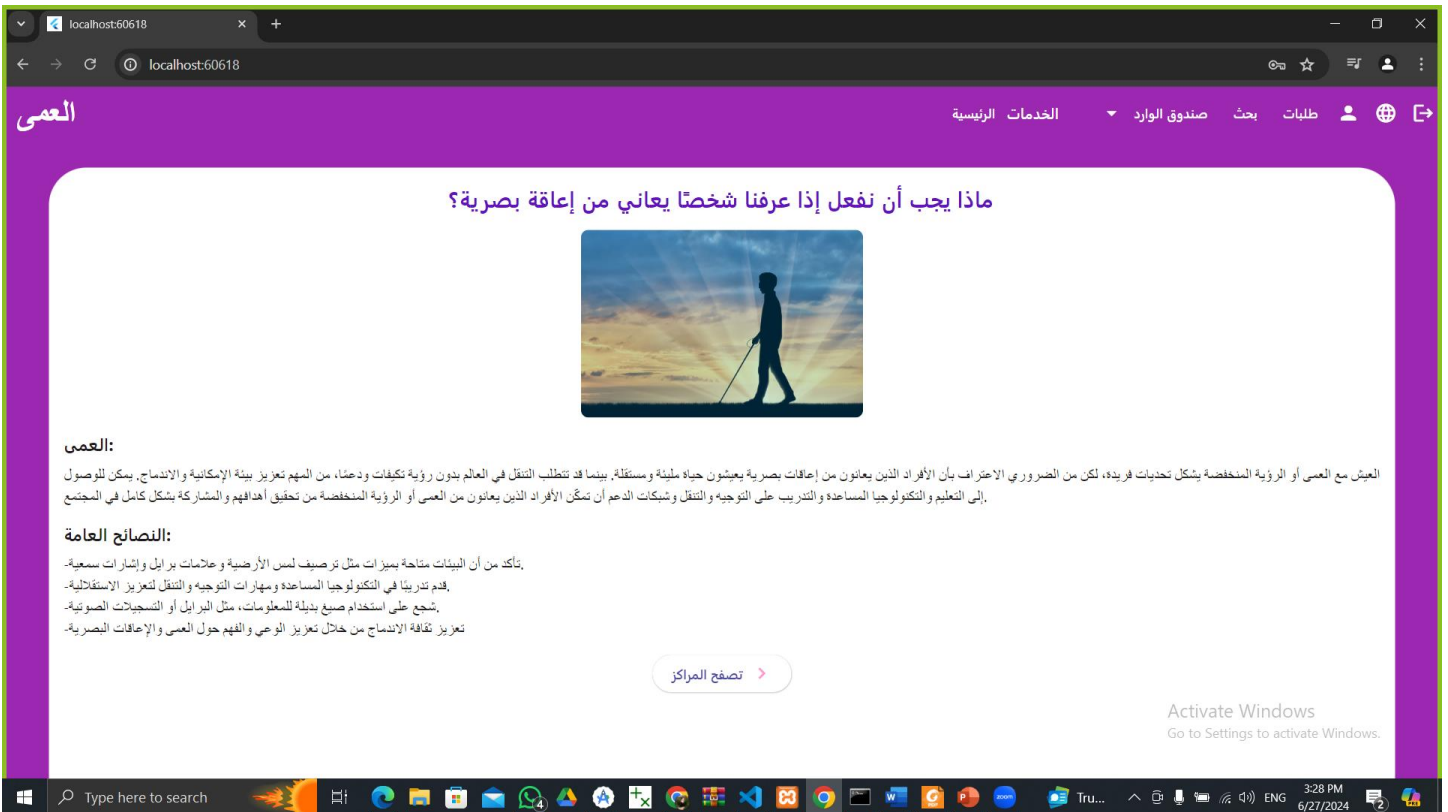


Figure 3-2-2- 40

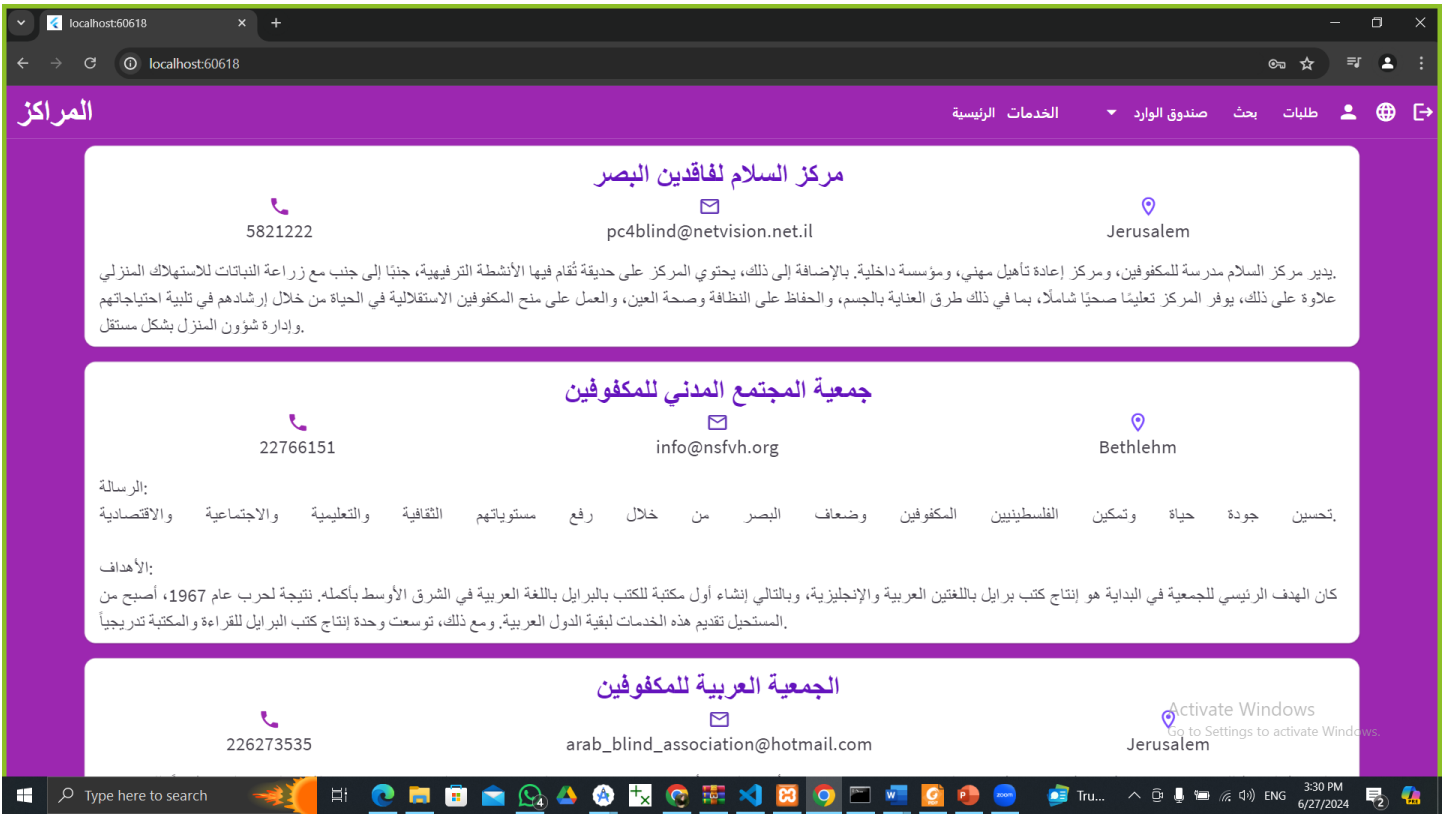


Figure 3-2-2- 41

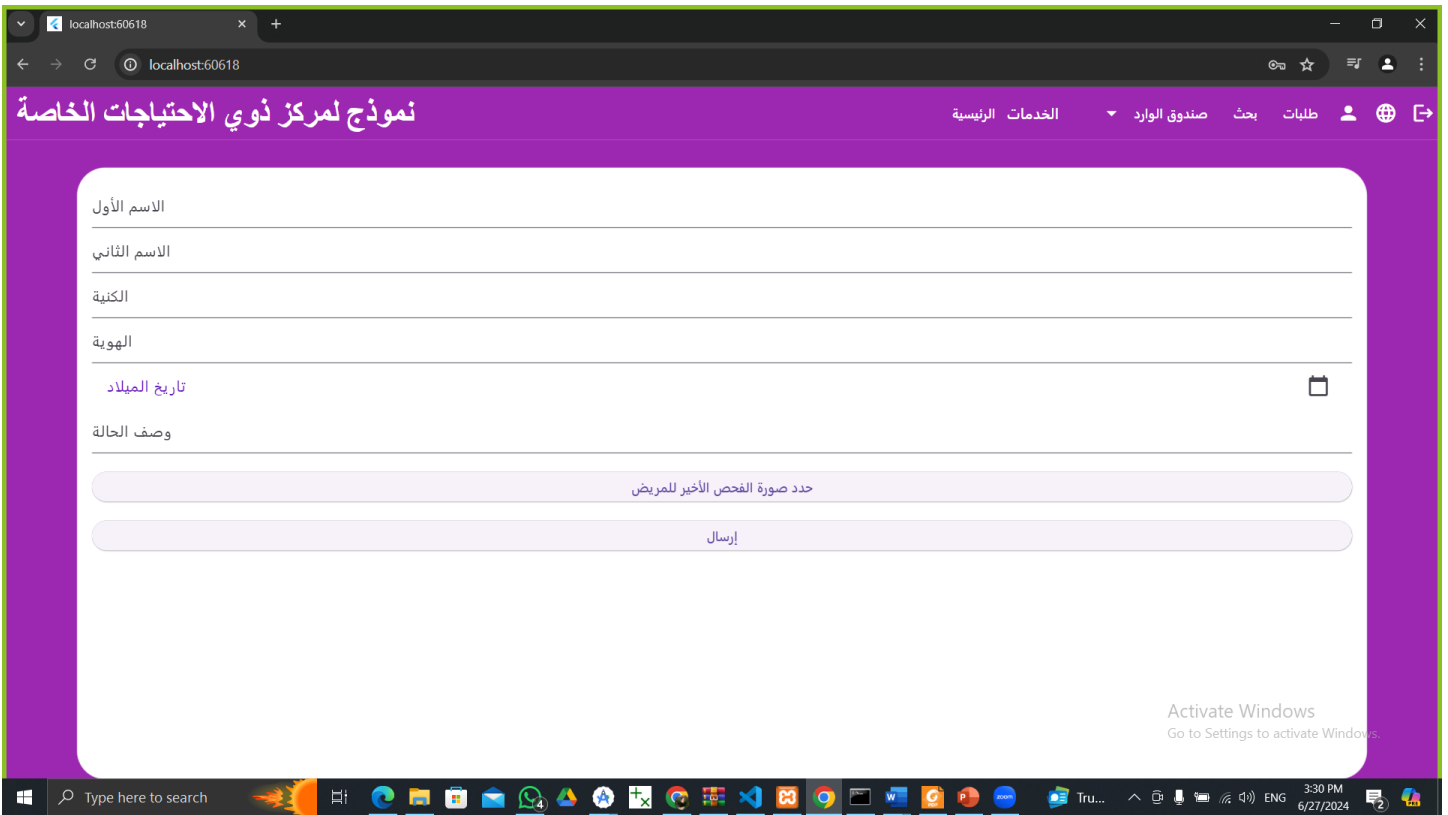


Figure 3-2-2- 42

Now for the last of the services, the Orphanages:

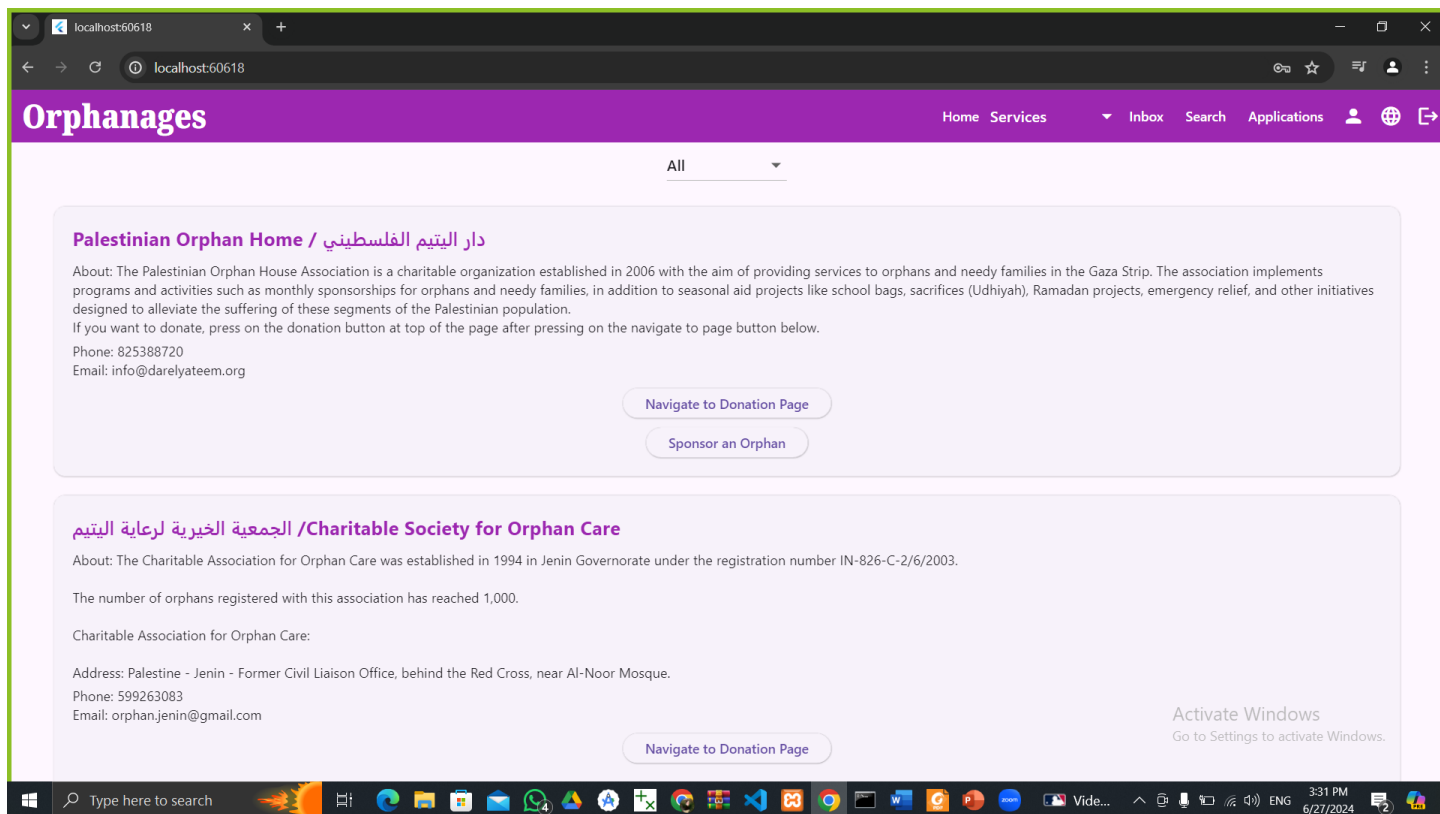


Figure 3-2-2- 43

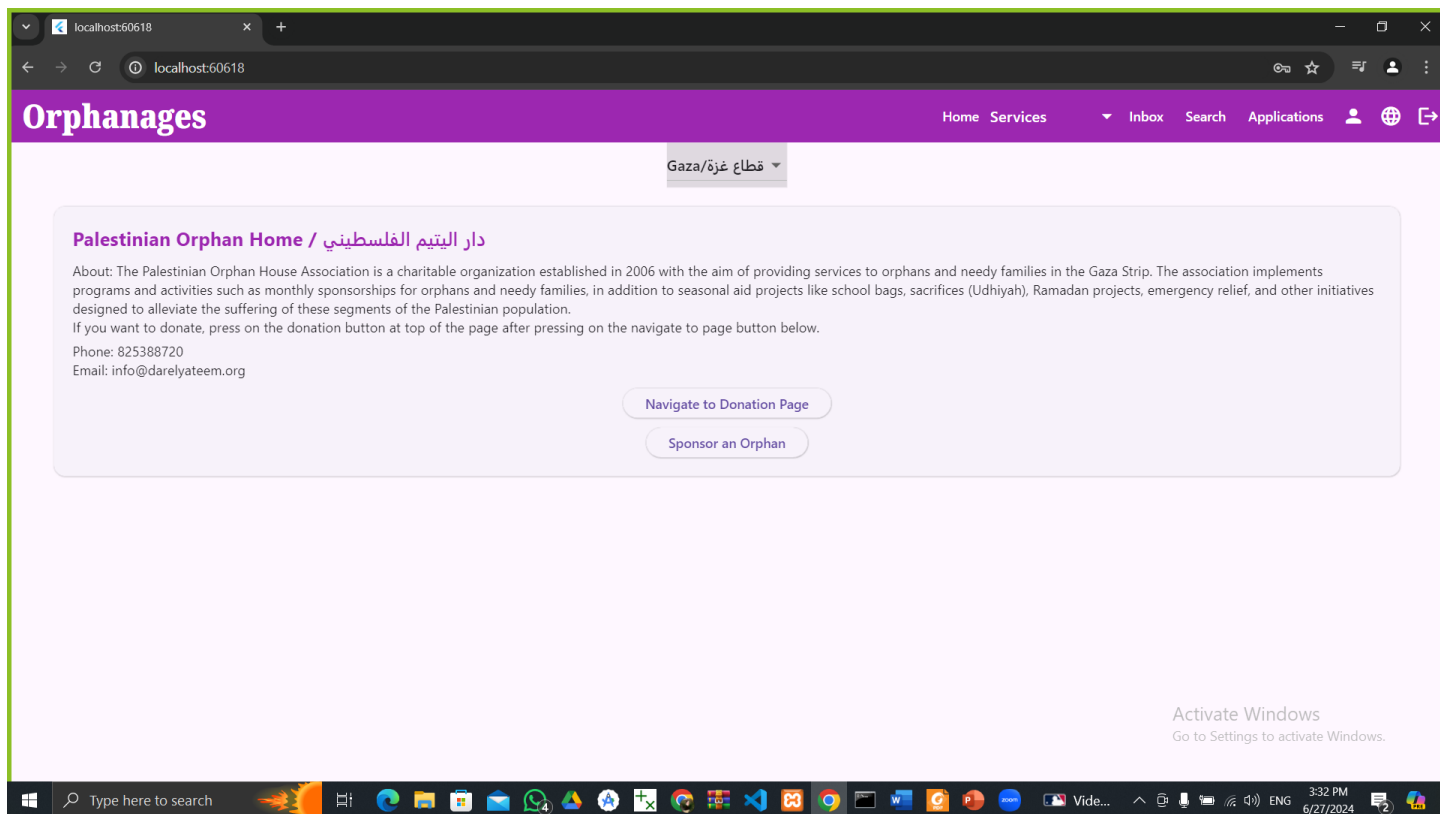


Figure 3-2-2- 44

## Applications Page:

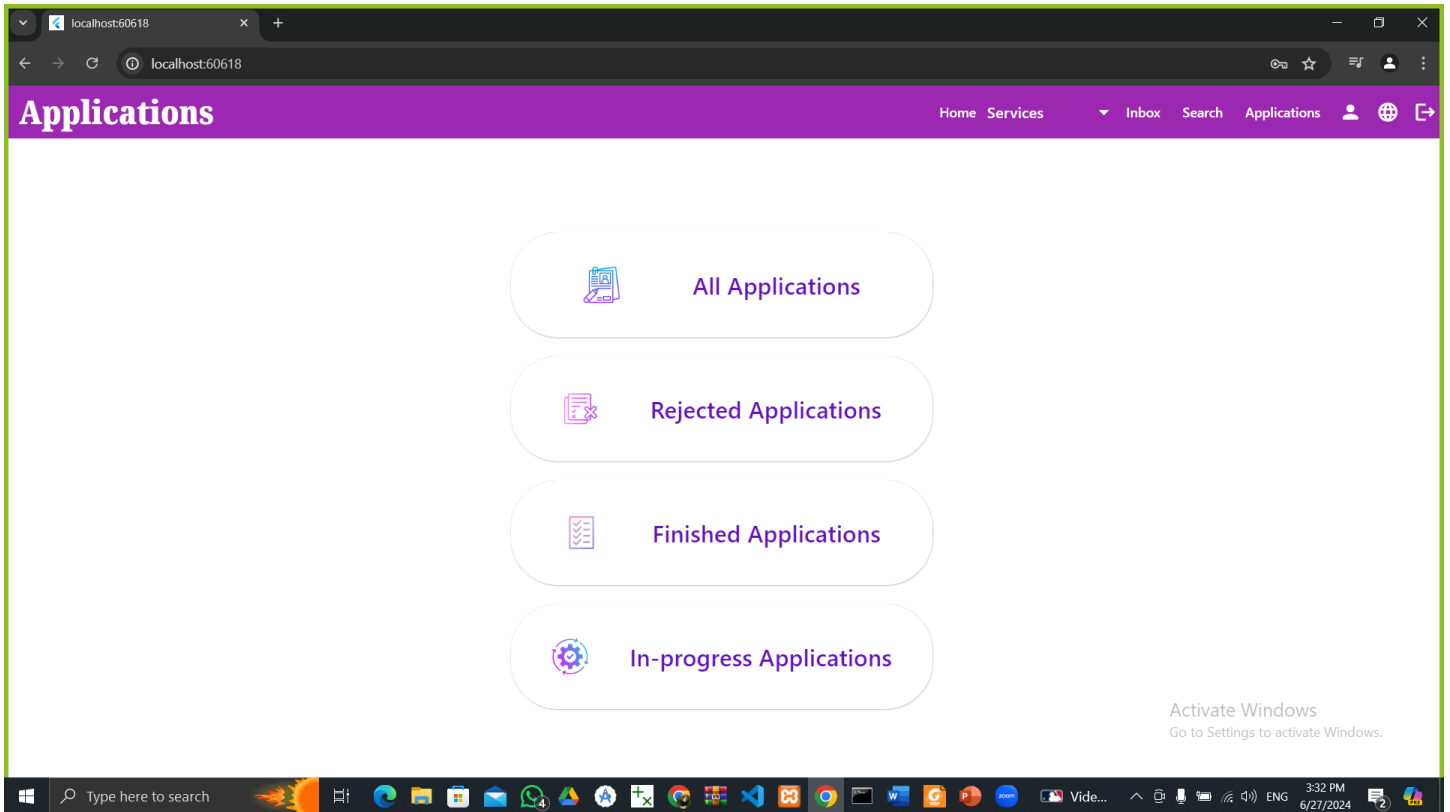


Figure 3-2-2- 45

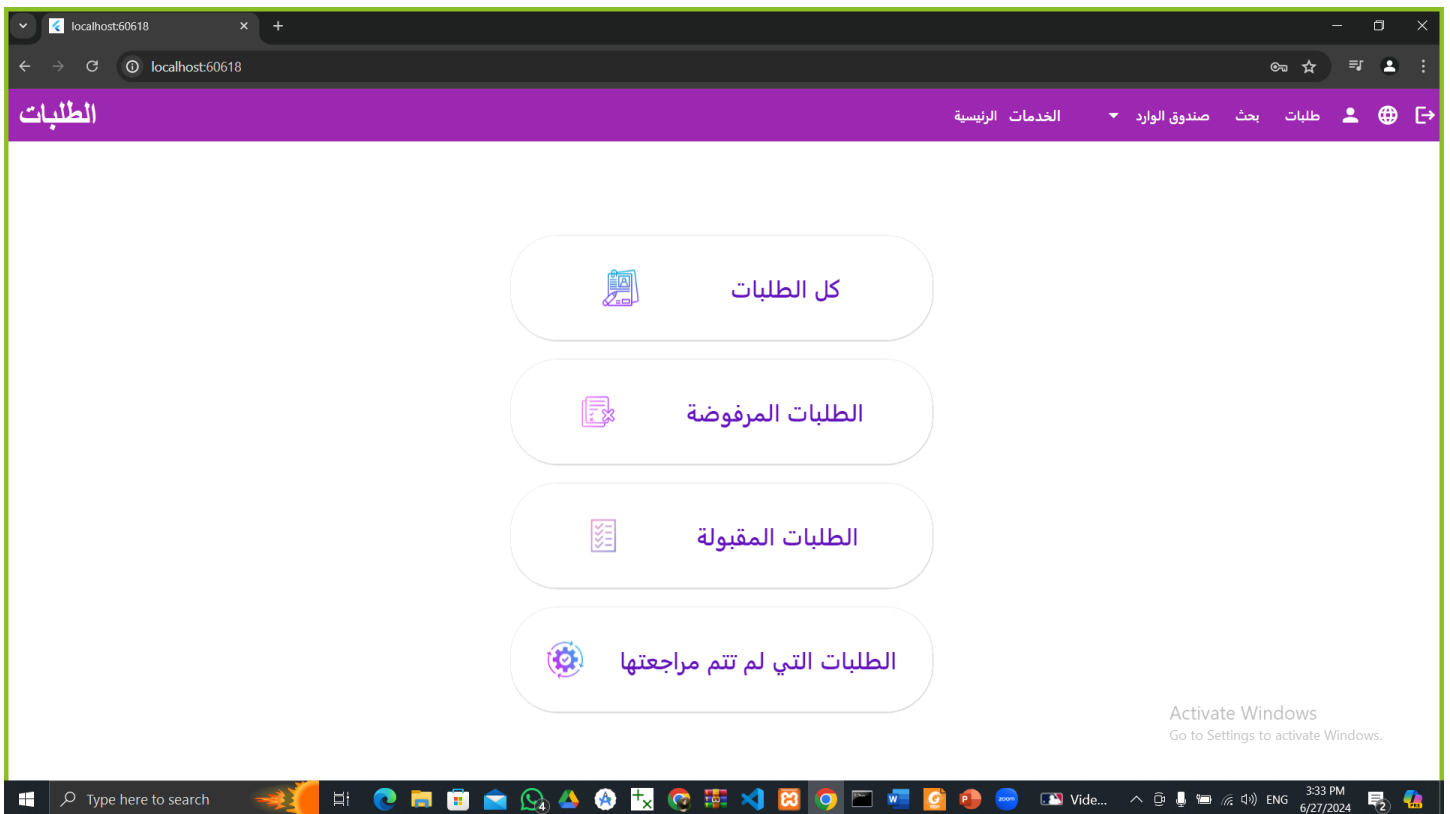


Figure 3-2-2- 46

## All applications:

The screenshot shows a web browser window with the URL localhost:60618. The page title is "الطلبات" (Applications). The navigation bar includes "الخدمات الرئيسية" (Main Services), "صندوق الوارد" (Inbox), "بحث" (Search), "طلبات" (Applications), and user profile icons. The main content area displays three application cards:

- NEWPassport**: رقم هوية صاحب الطلب 402567812, تاريخ تقديم الطلب 2024-05-02 17:22:35, حالة الطلب Not Done, حالة الدفع: لقد أكملت عملية الدفع لهذا الطلب, رسالة الموظف: طلبك ما زال ينتظر ان يتم معالجته, تنزيل الطلب.
- NEWID**: رقم هوية صاحب الطلب 402567812, تاريخ تقديم الطلب 2024-05-05 12:21:46, حالة الطلب accepted, حالة الدفع: لقد أكملت عملية الدفع لهذا الطلب, رسالة الموظف: لوقت المقدر حتى تستلم الوثيقة الخاصة بك ago 2 days and 15 hours and 33 minutes, تنزيل الطلب.
- Charitable Association for the Blind**: رقم هوية صاحب الطلب 402567345, تاريخ تقديم الطلب 2024-05-05 12:28:40, حالة الطلب rejected, حالة الدفع: لقد أكملت عملية الدفع لهذا الطلب, رسالة الموظف: سبب رفض الطلب, تنزيل الطلب.

The Windows taskbar at the bottom shows the time as 3:33 PM on 6/27/2024.

Figure 3-2-2- 47

The screenshot shows a web browser window with the URL localhost:60618. The page title is "الطلبات" (Applications). The navigation bar includes "الخدمات الرئيسية" (Main Services), "صندوق الوارد" (Inbox), "بحث" (Search), "طلبات" (Applications), and user profile icons. The main content area displays three application cards:

- NEWPassport**: رقم هوية صاحب الطلب 402567812, تاريخ تقديم الطلب 2024-05-02 17:22:35, حالة الطلب Not Done, حالة الدفع: لقد أكملت عملية الدفع لهذا الطلب, رسالة الموظف: طلبك ما زال ينتظر ان يتم معالجته, تنزيل الطلب.
- Center for Peace for the Blind**: رقم هوية صاحب الطلب 402567152, تاريخ تقديم الطلب 2024-05-30 14:52:29, حالة الطلب Not Done, حالة الدفع: انت لم تكمل عملية الدفع لهذا الطلب, حتى تكمل العملية اضغط هنا, رسالة الموظف: طلبك ما زال ينتظر ان يتم معالجته, تنزيل الطلب.
- NEWPassport**: رقم هوية صاحب الطلب 402568923, تاريخ تقديم الطلب 2024-06-06 18:14:28, حالة الطلب Not Done, حالة الدفع: لقد أكملت عملية الدفع لهذا الطلب, رسالة الموظف: طلبك ما زال ينتظر ان يتم معالجته, تنزيل الطلب.

The Windows taskbar at the bottom shows the time as 3:34 PM on 6/27/2024 and the temperature as 89°F.

Figure 3-2-2- 48

To download the application:

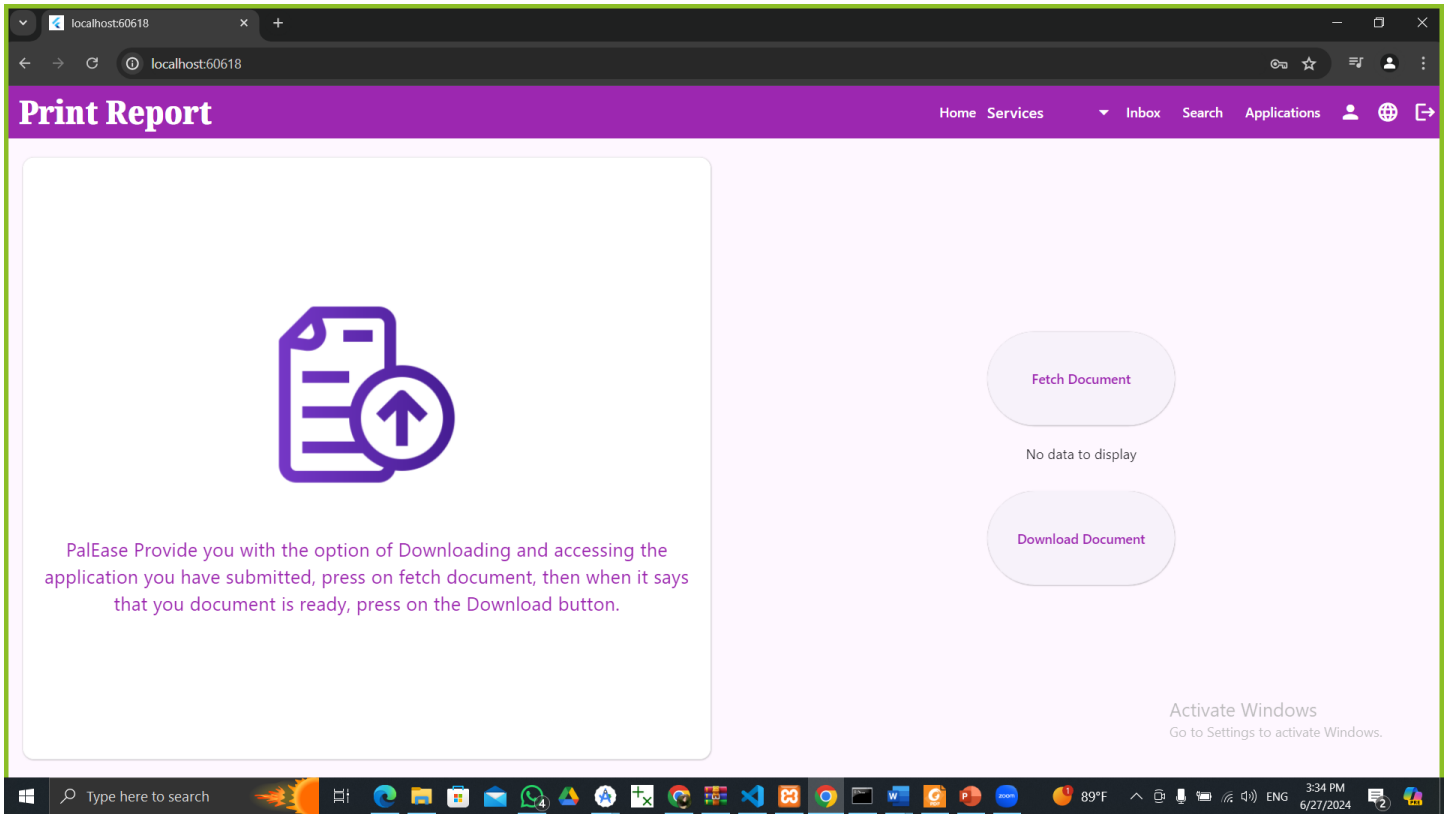


Figure 3-2-2- 49

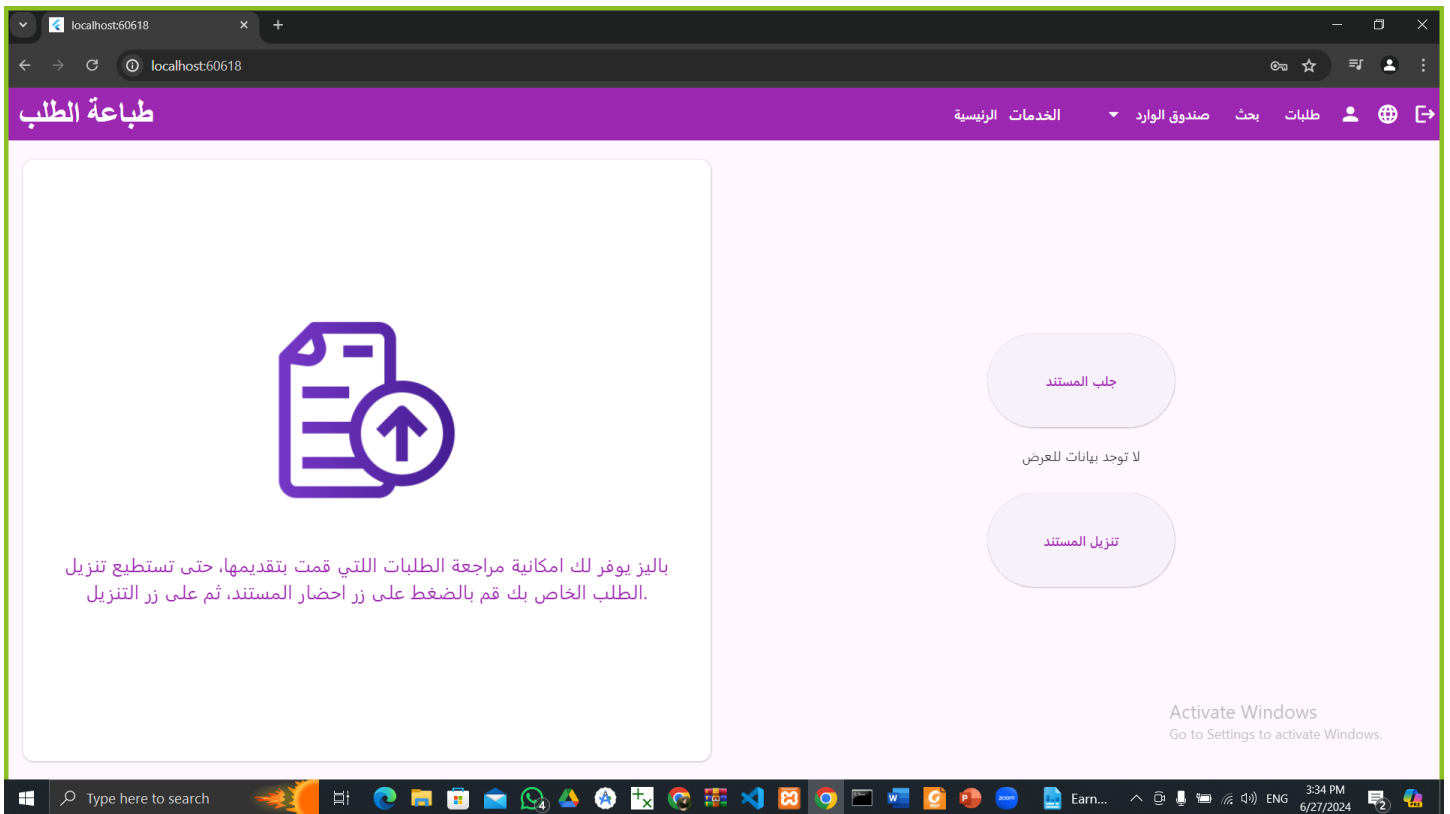


Figure 3-2-2- 50

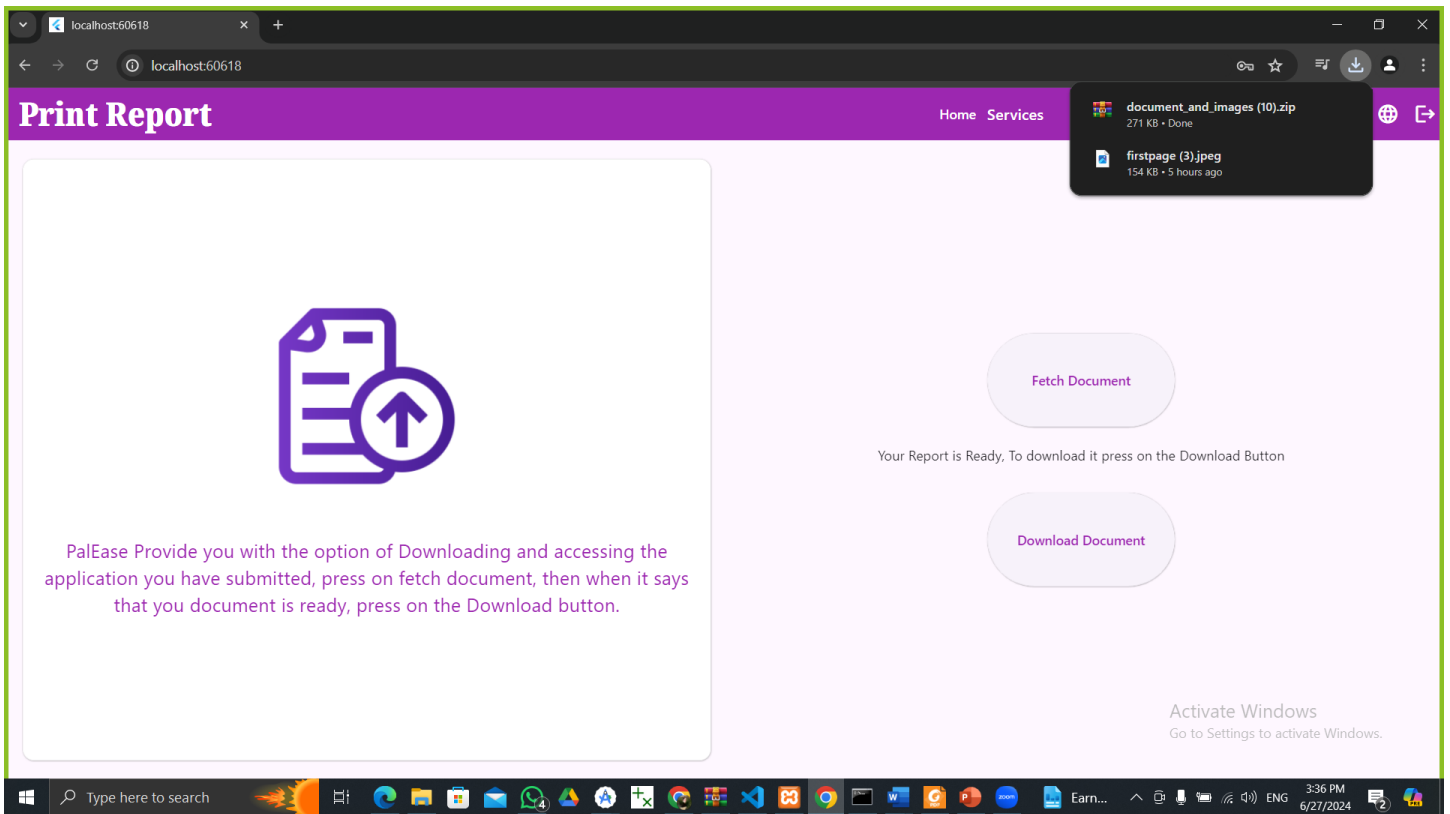


Figure 3-2-2- 51

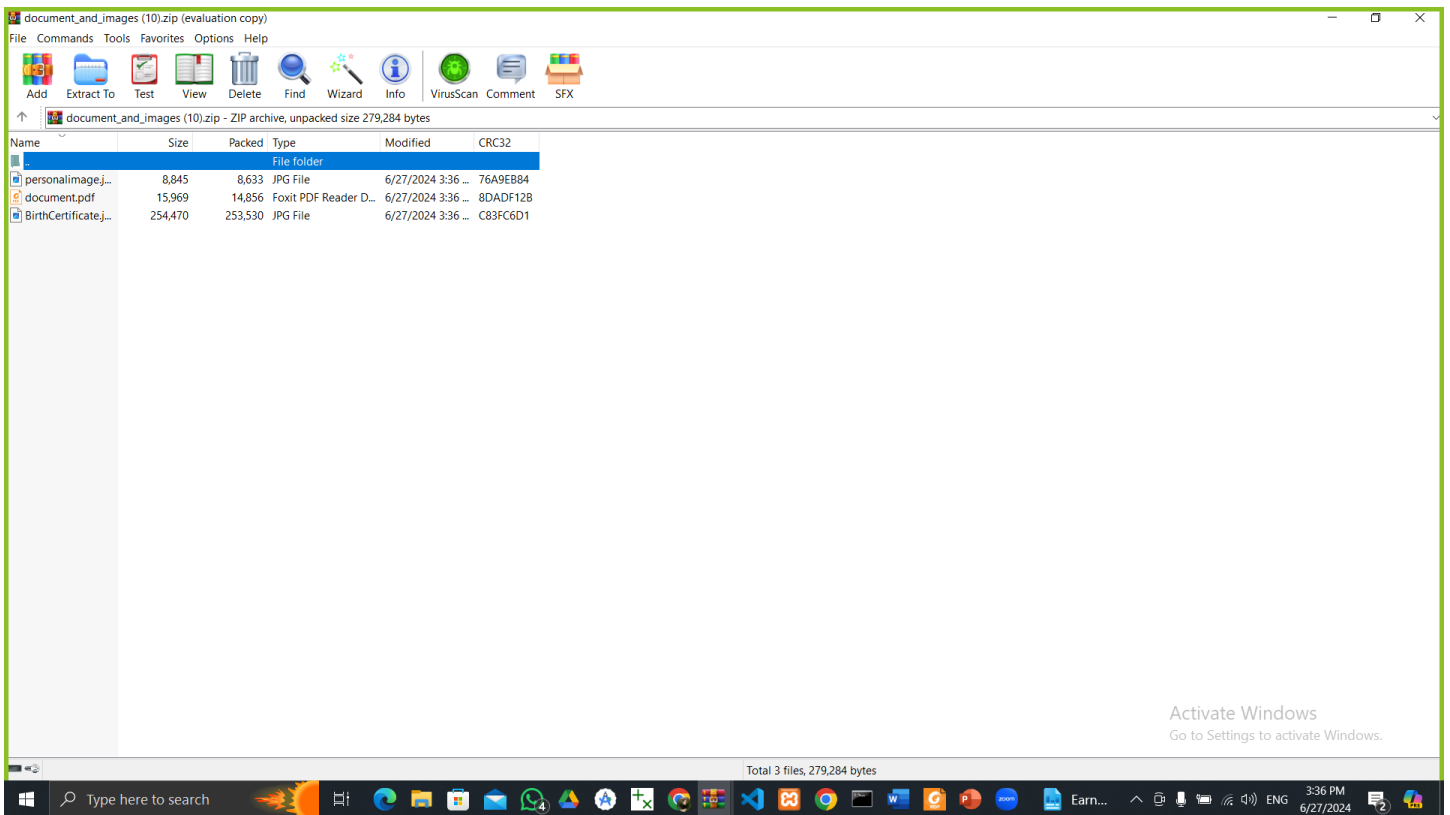


Figure 3-2-2- 52

Payment page:

For payment in the web we used Stripe, Stripe provide a testing card 4242 4242 4242 4242

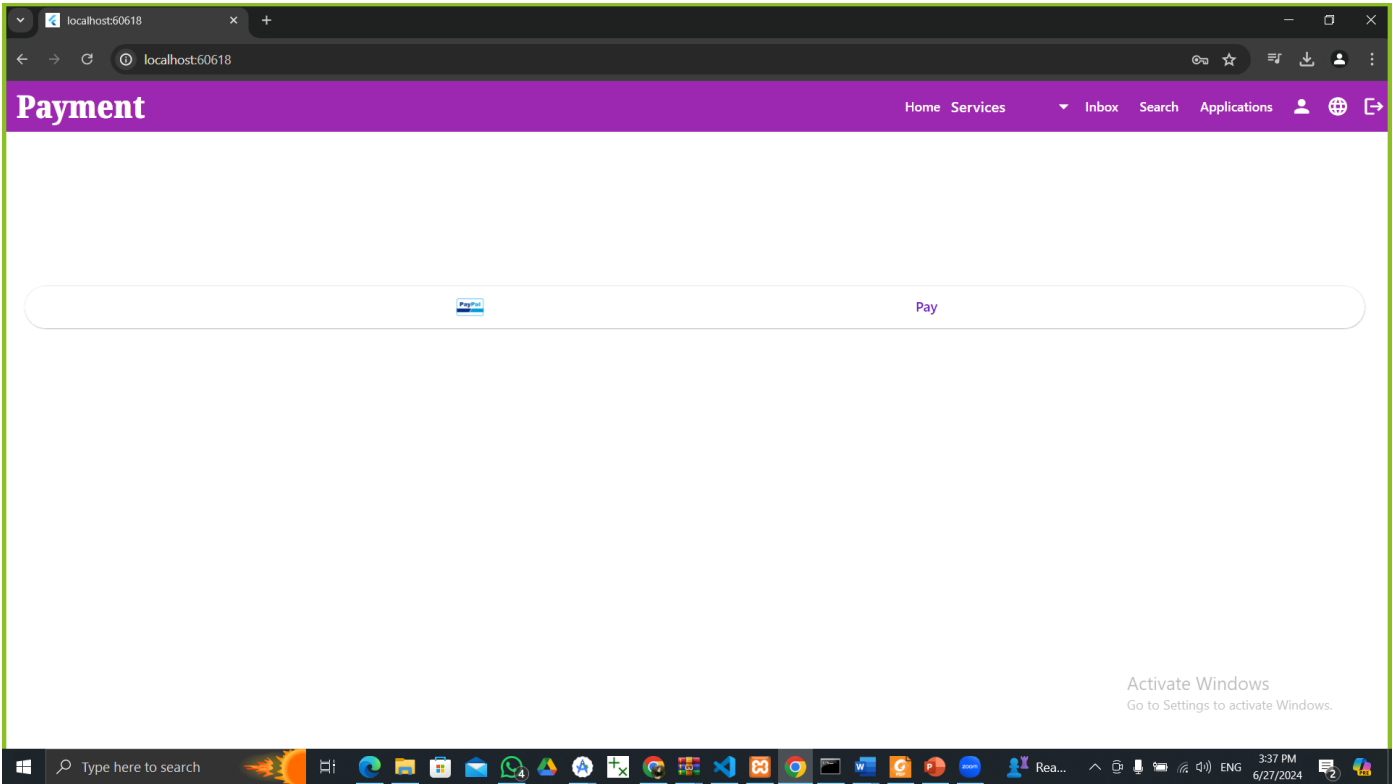


Figure 3-2-2- 53

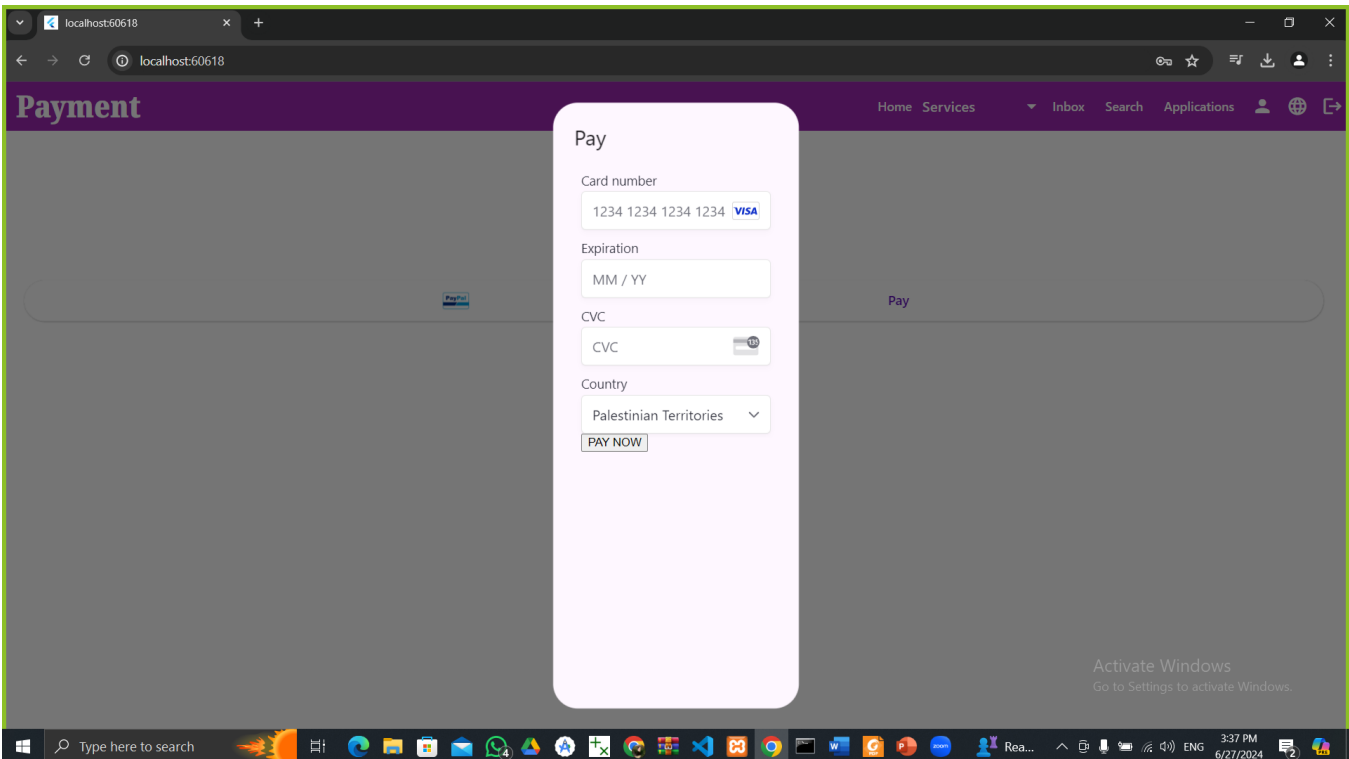


Figure 3-2-2- 54

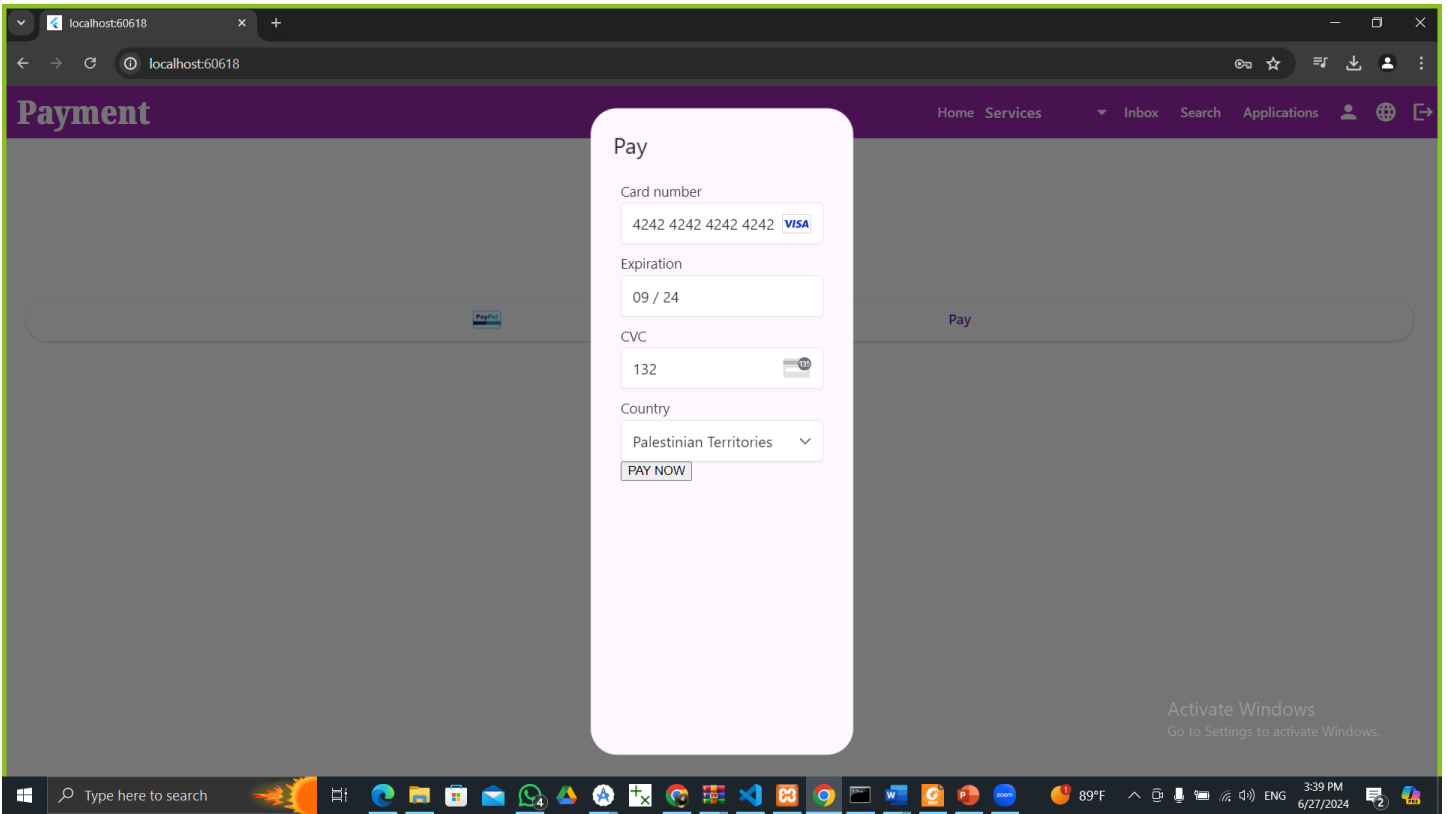


Figure 3-2-2- 55

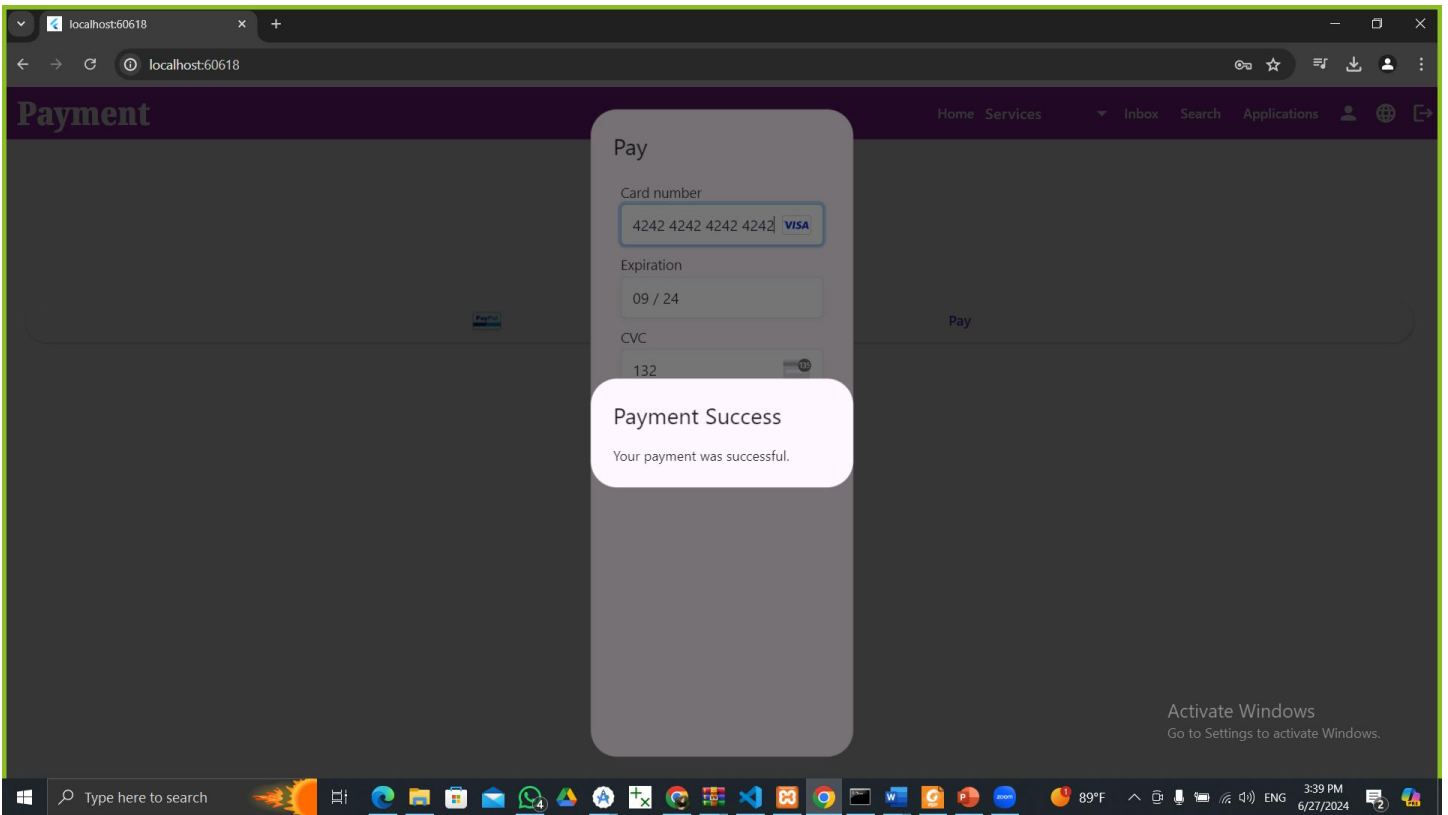


Figure 3-2-2- 56

## Search Page:

It has the same search method and filters as the mobile:

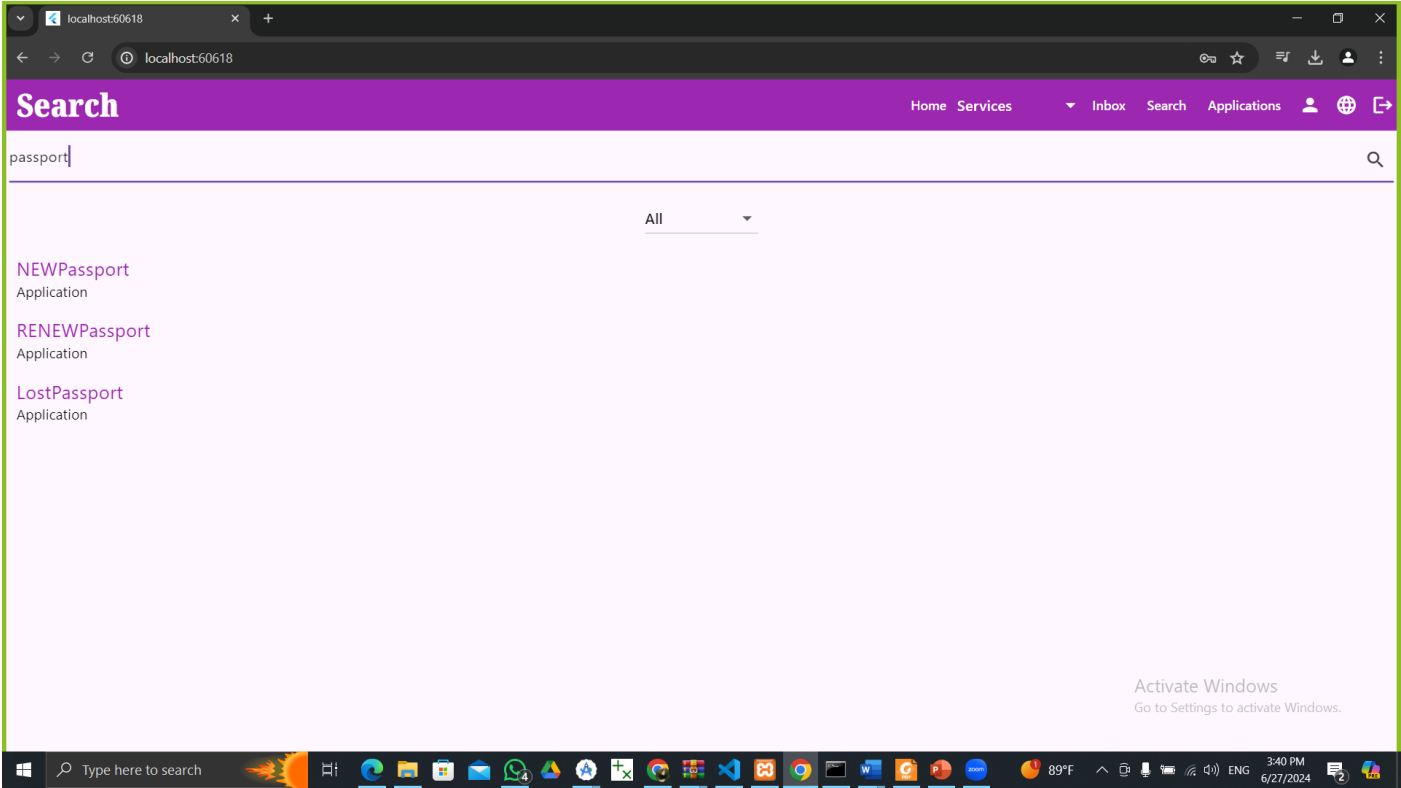


Figure 3-2-2- 57

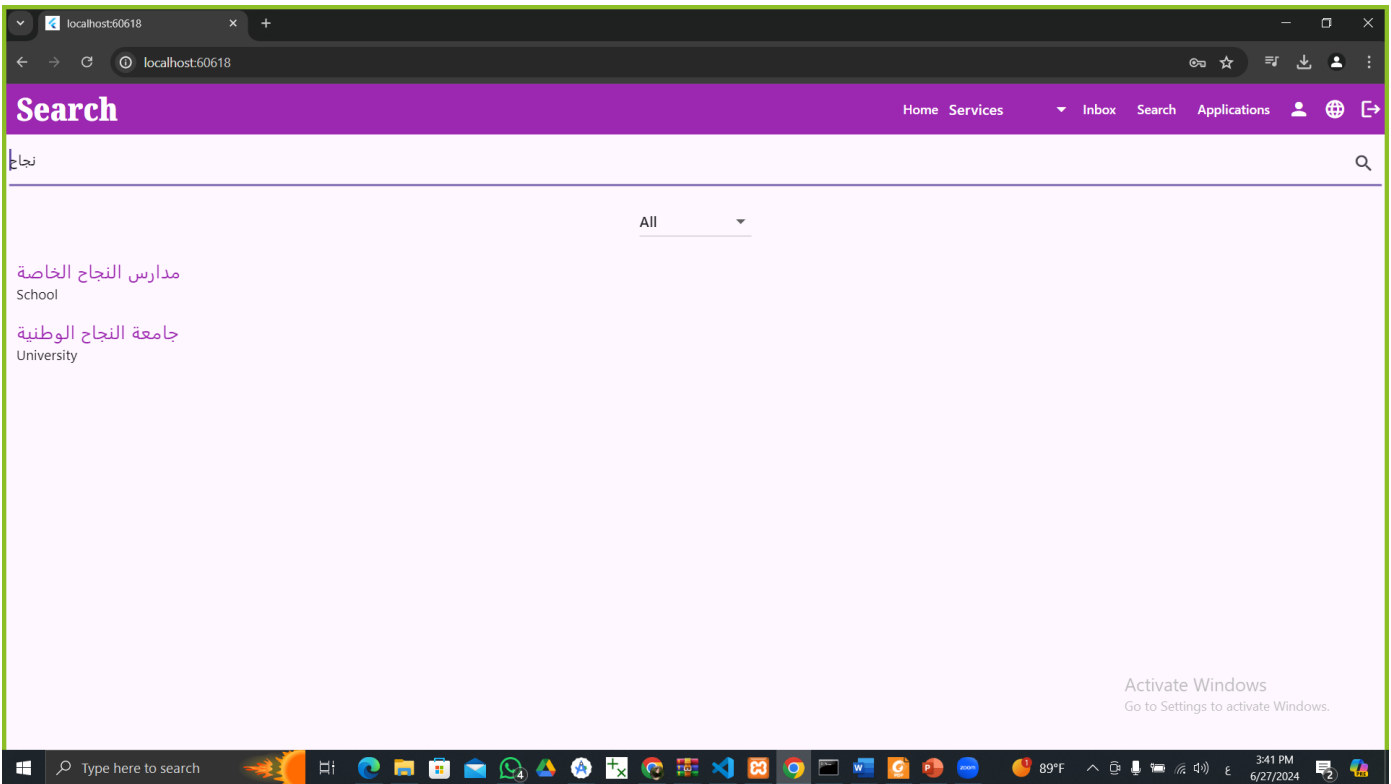


Figure 3-2-2- 58

Inbox page:

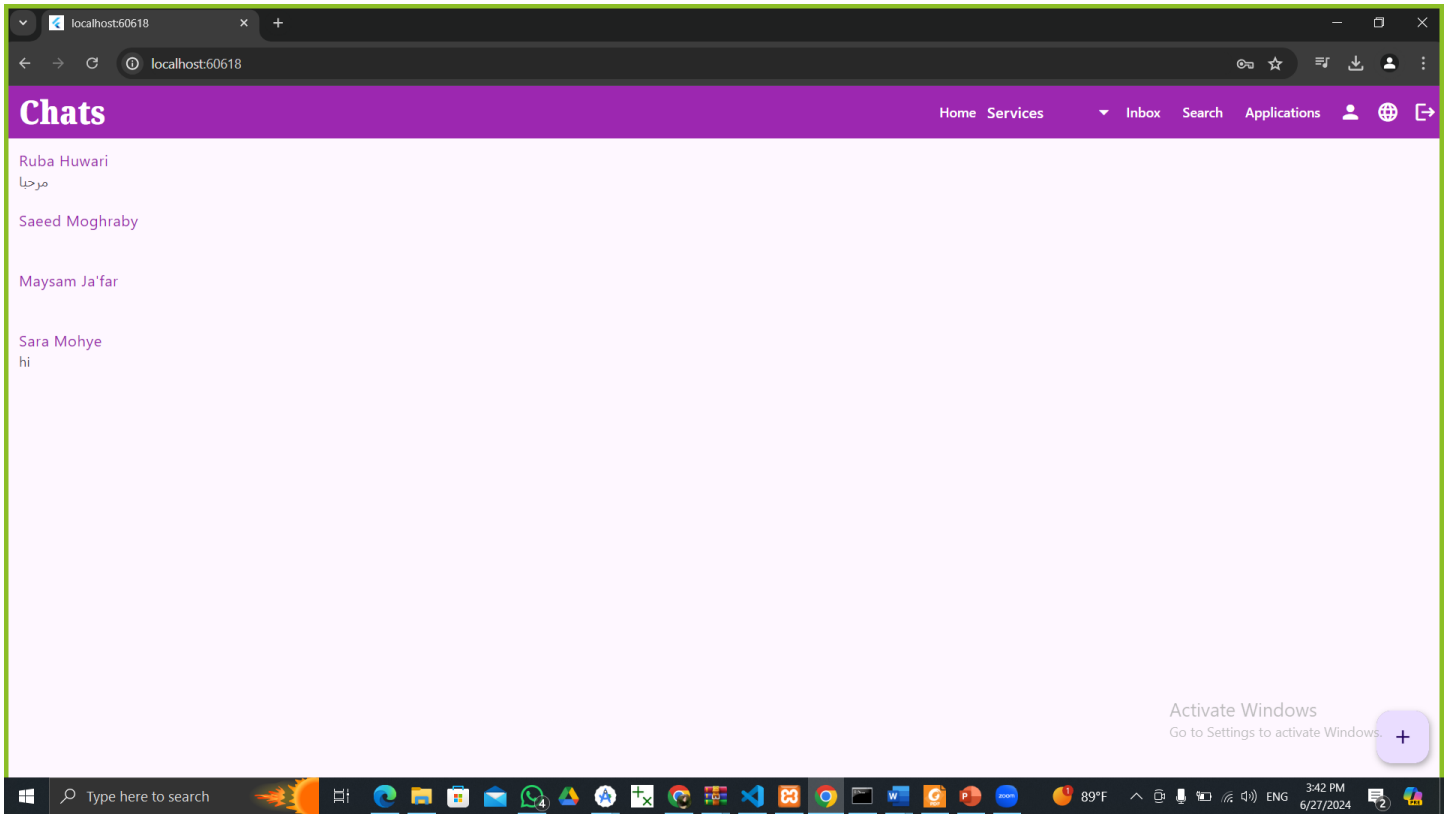


Figure 3-2-2- 59

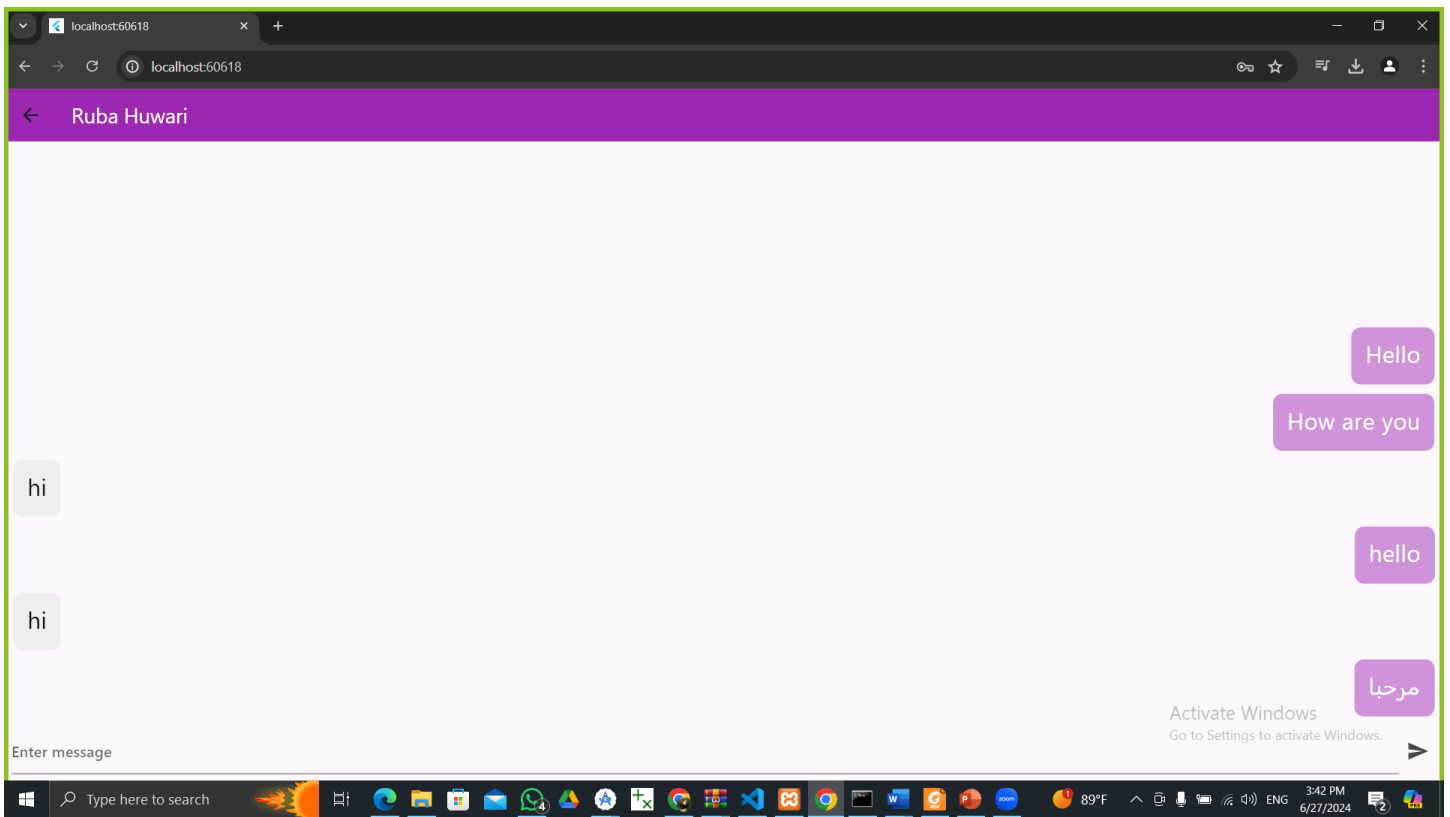


Figure 3-2-2- 60

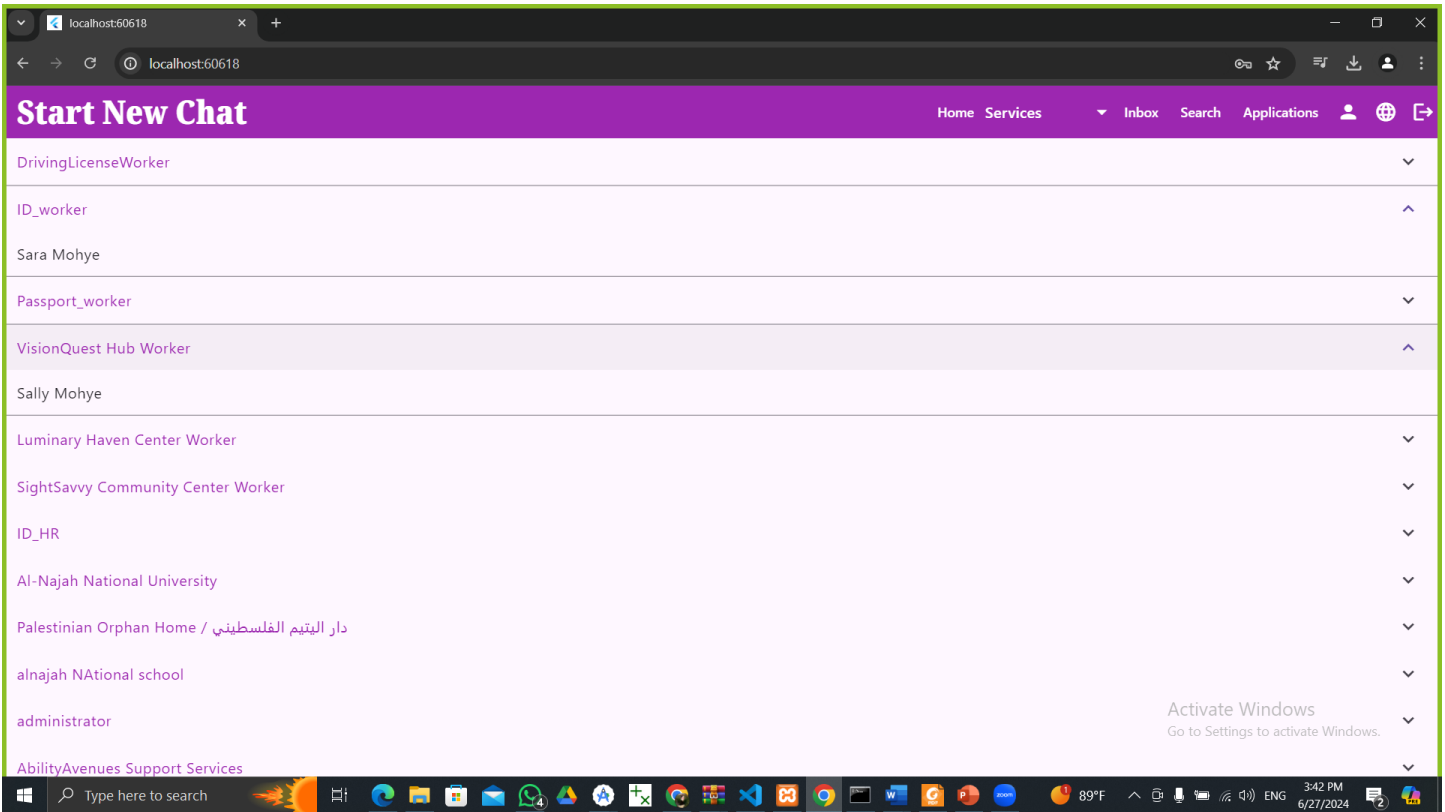


Figure 3-2-2- 61

Profile Page:

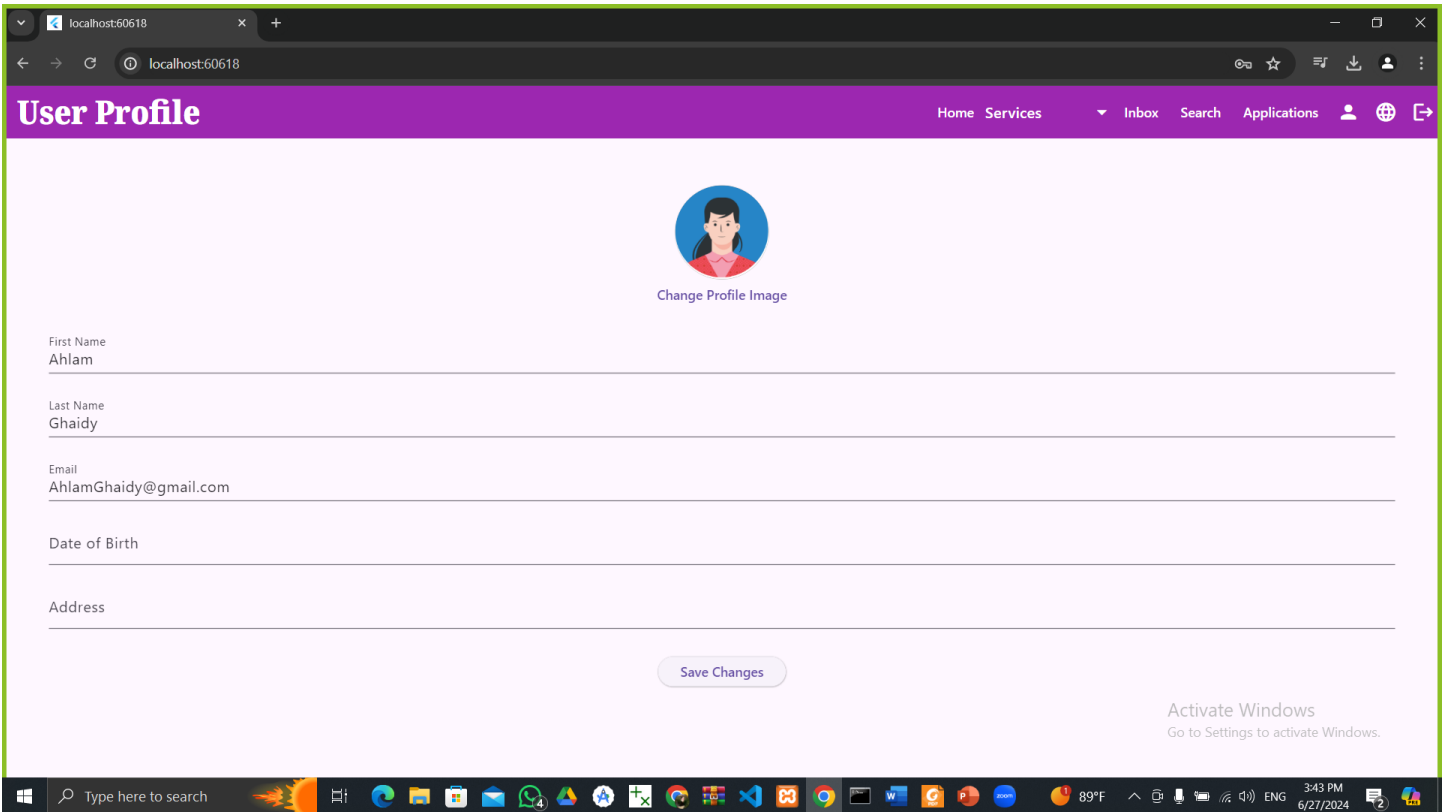


Figure 3-2-2- 62

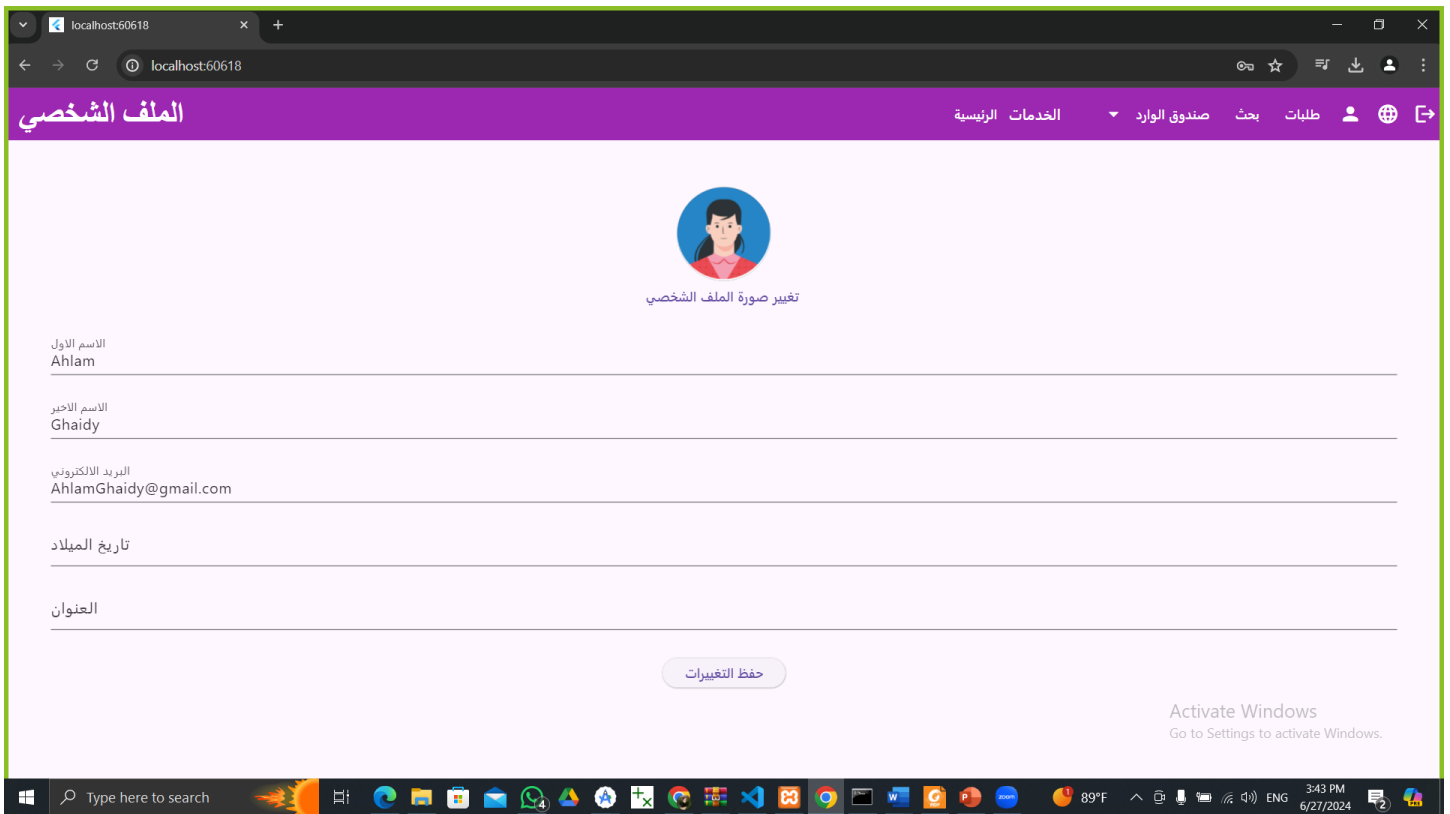


Figure 3-2-2- 63

Now we are done with the user side

## 2. Worker Side:

The worker dashboard differentiates depending on the department he works on, if it is Governmental, schools, universities, orphanages, or a special needs center.

### 1. Governmental Worker:

Lets take a worker of the ID department, the dashboard he sees when he signs in, has a pie chart for the number of applications for each one of the applications provided by the ID department, and then there is a line chart, to show the number of applications distributed over the last month.

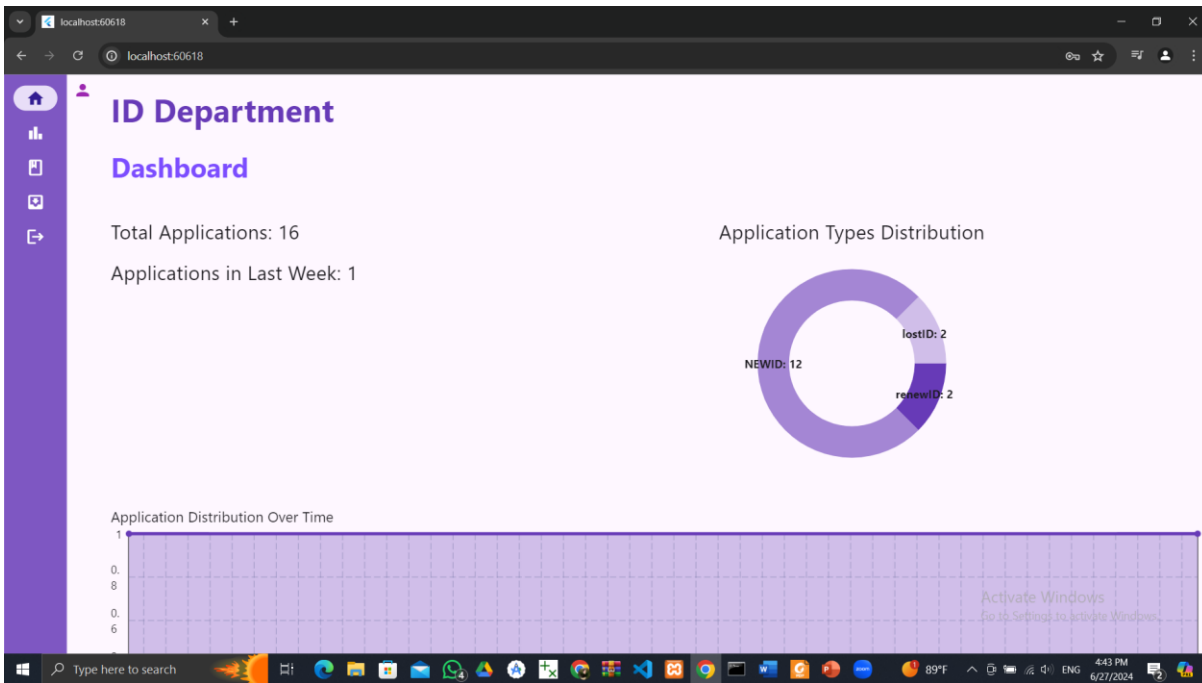


Figure 3-2-2- 64

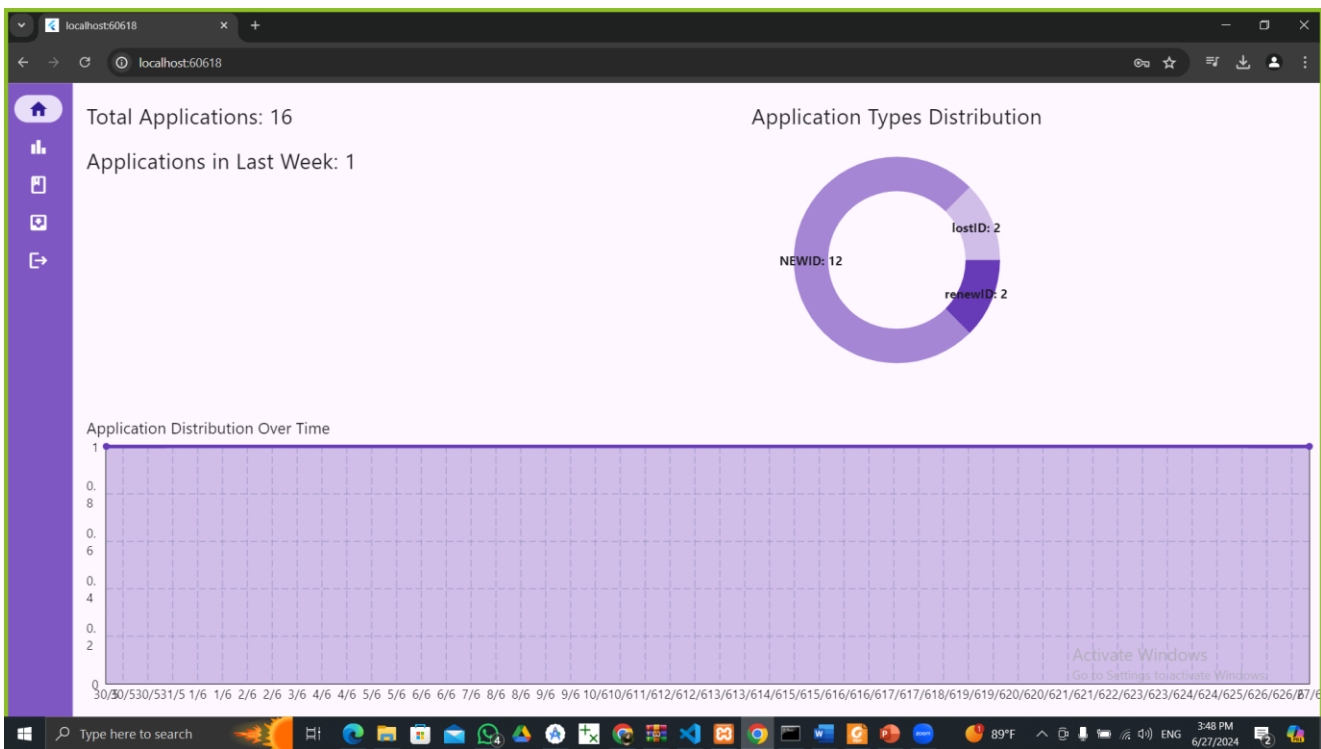


Figure 3-2-2- 65

Then there is an applications page:

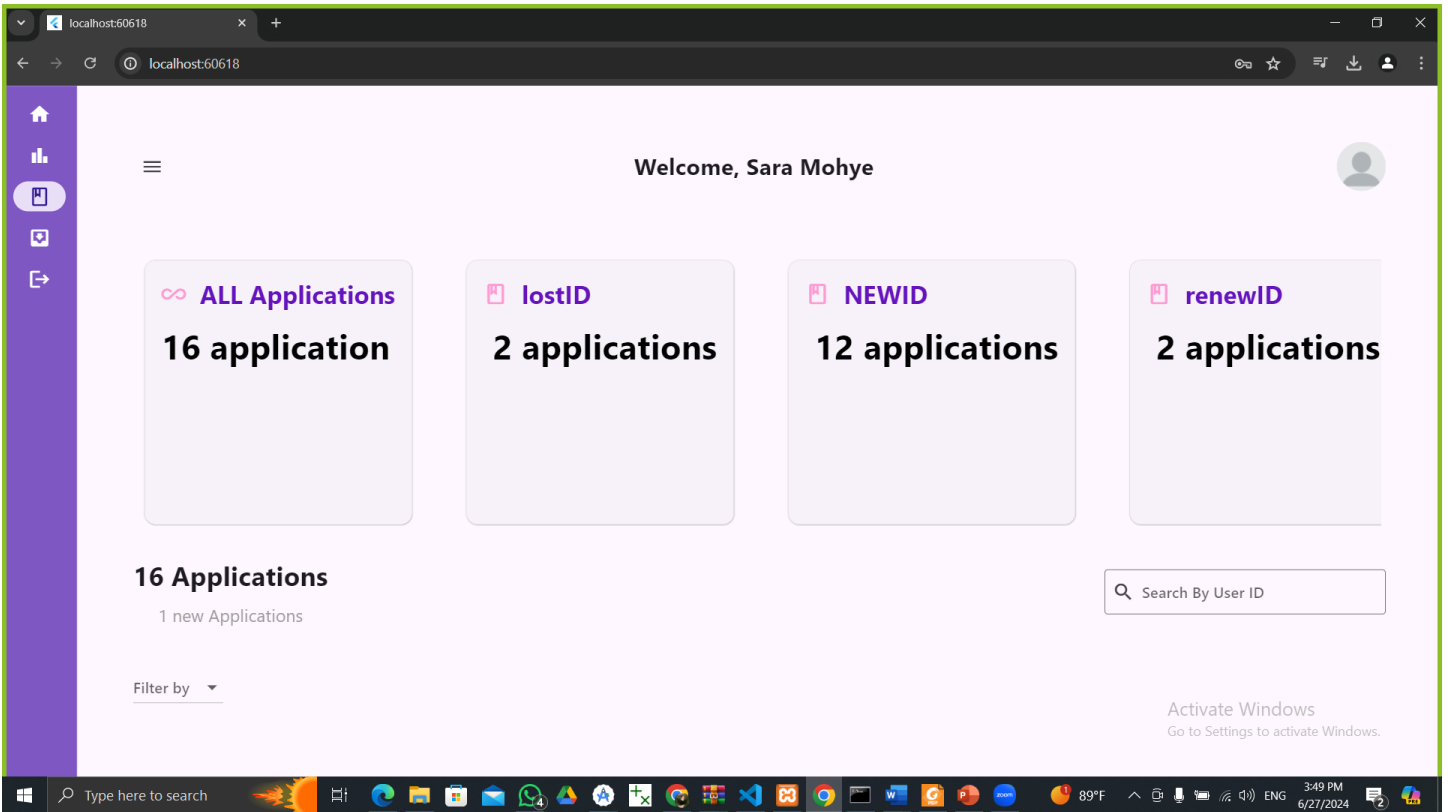


Figure 3-2-2- 66

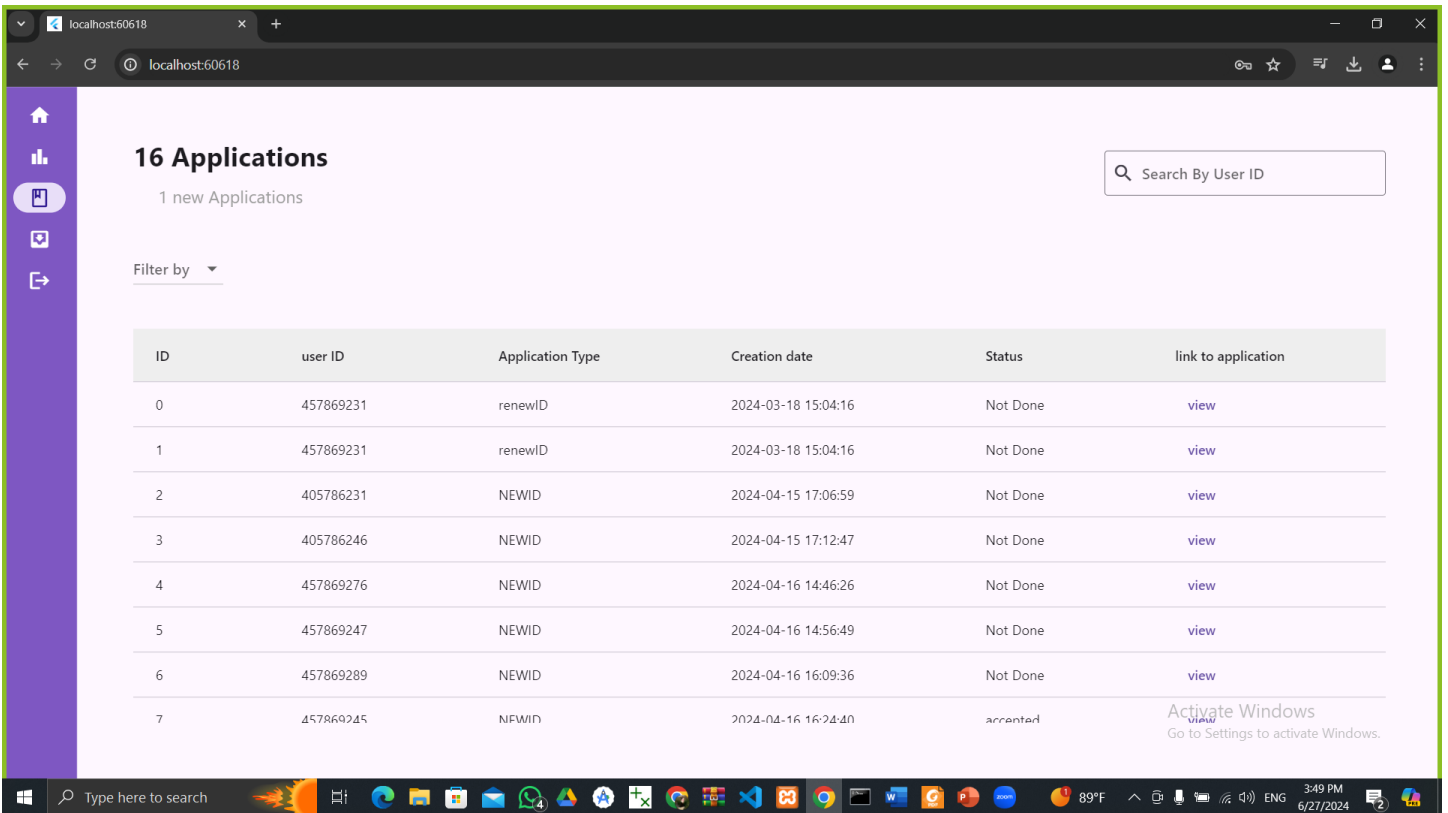


Figure 3-2-2- 67

The applications can be filtered depending on their status:

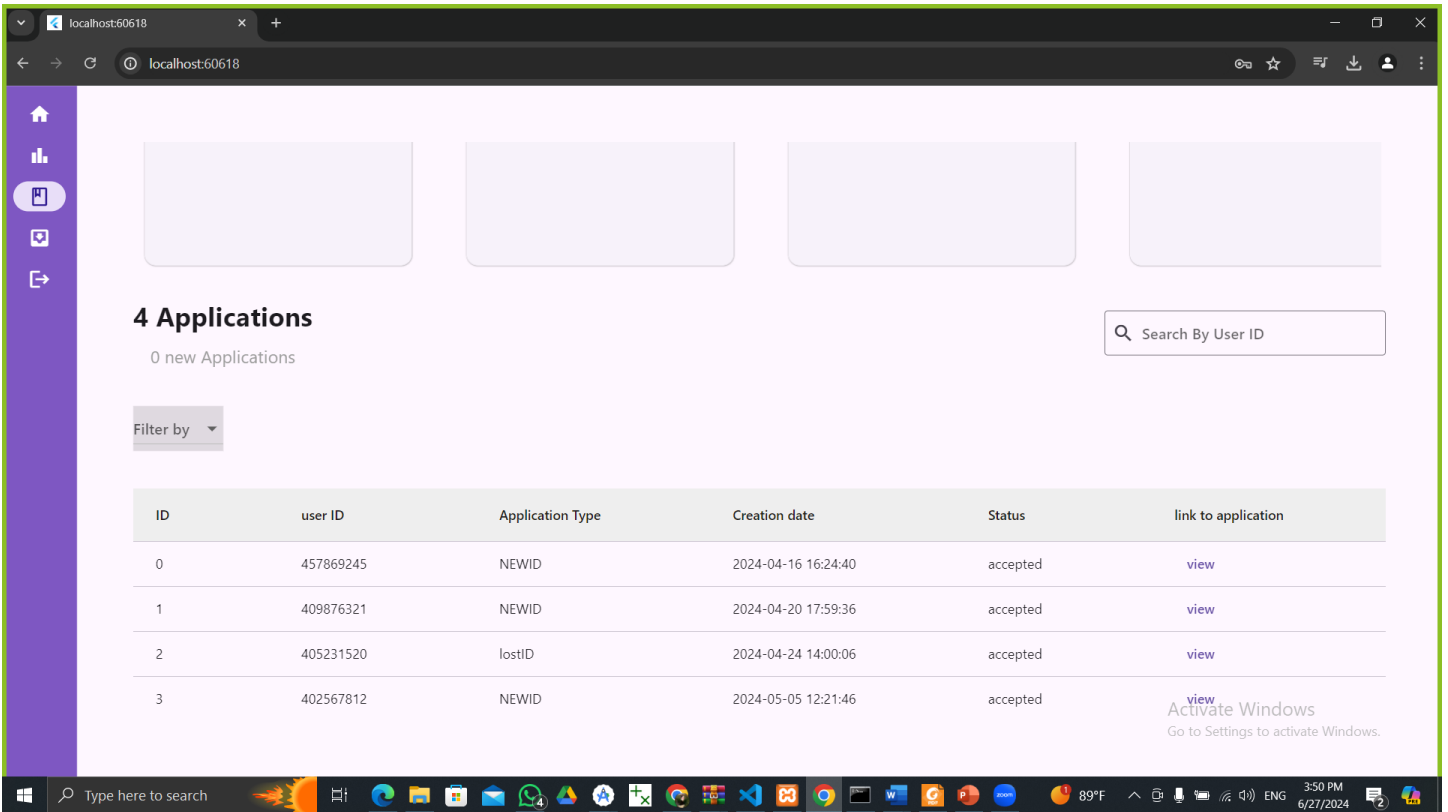


Figure 3-2-2- 68

Above we chose to filter by the accepted applications.

And you can also search for the applications of a specific user, using the userid:

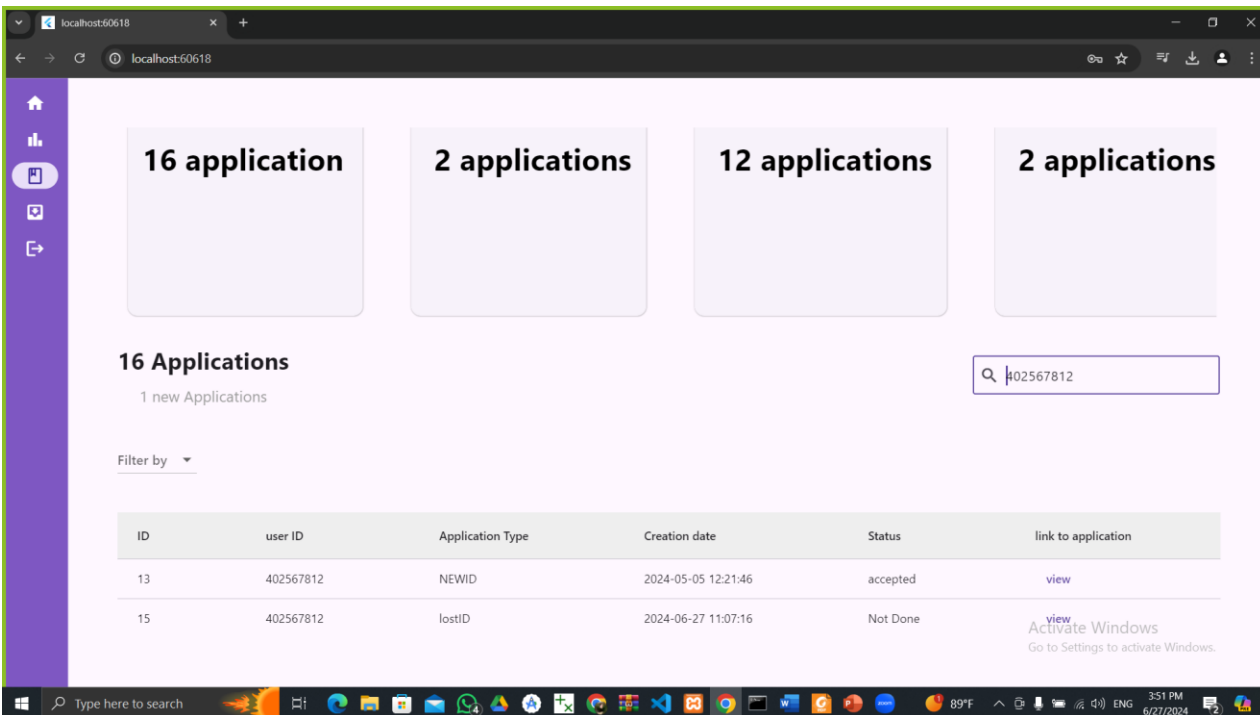


Figure 3-2-2- 69

there is a view button that links to the application page, if the application is accepted the worker can see it but can not change its status of acceptance:

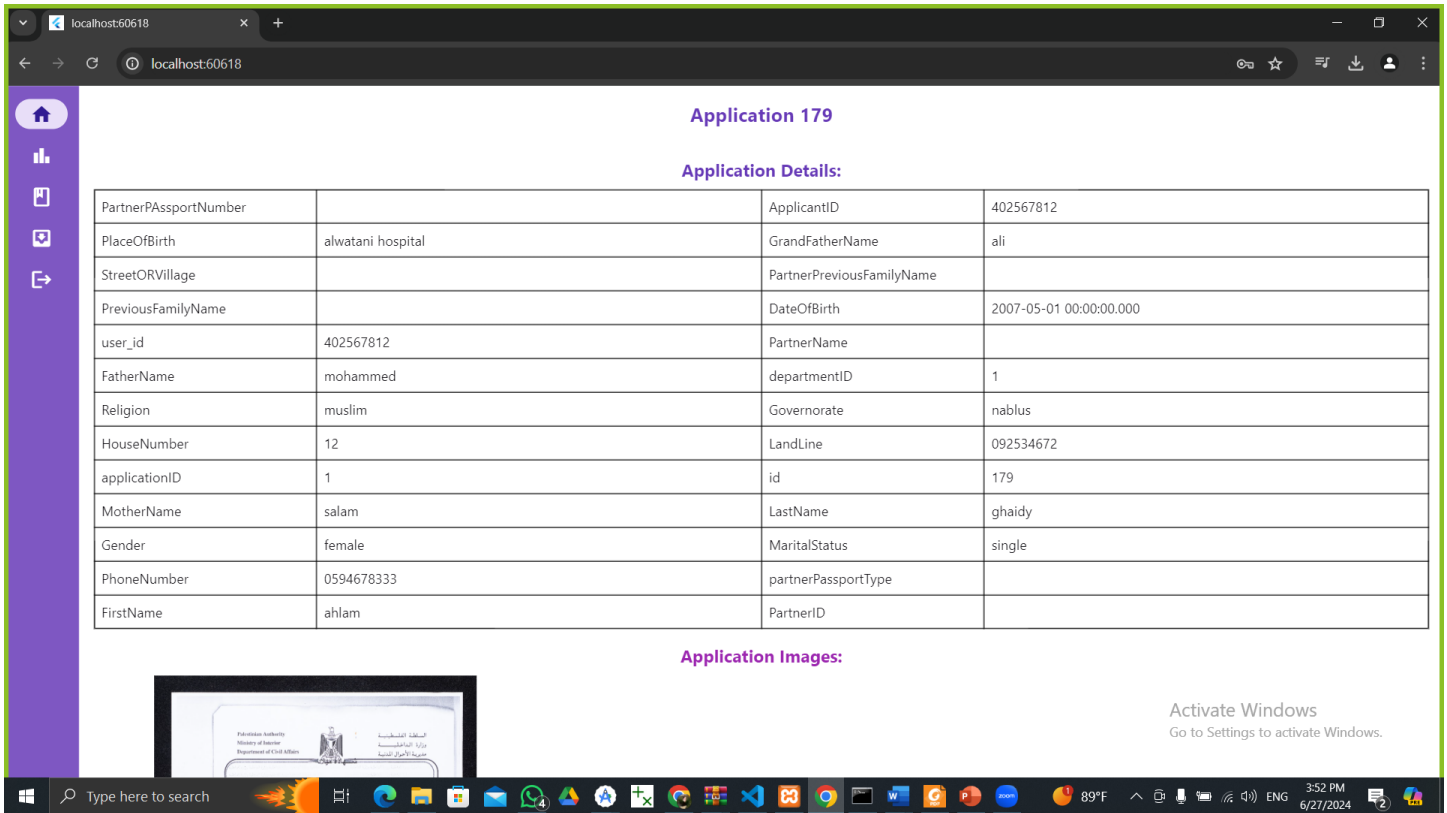


Figure 3-2-2- 70

But if the application is not processed yet, then the admin can preview it and decide to accept or reject:

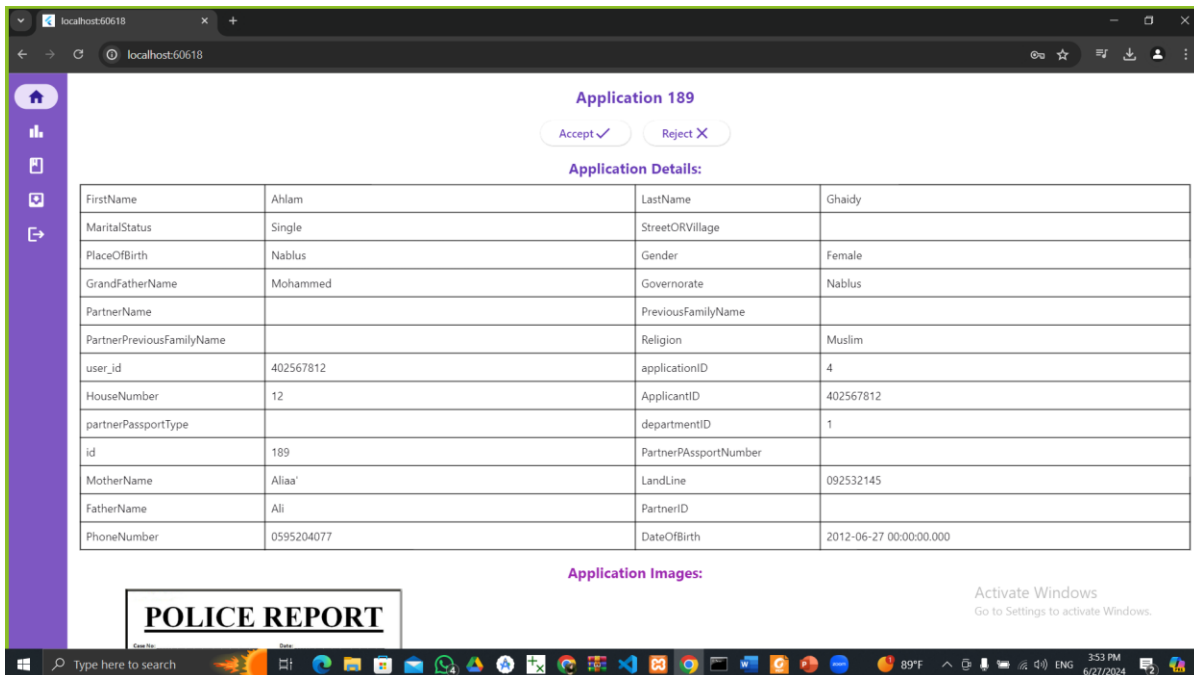


Figure 3-2-2- 71

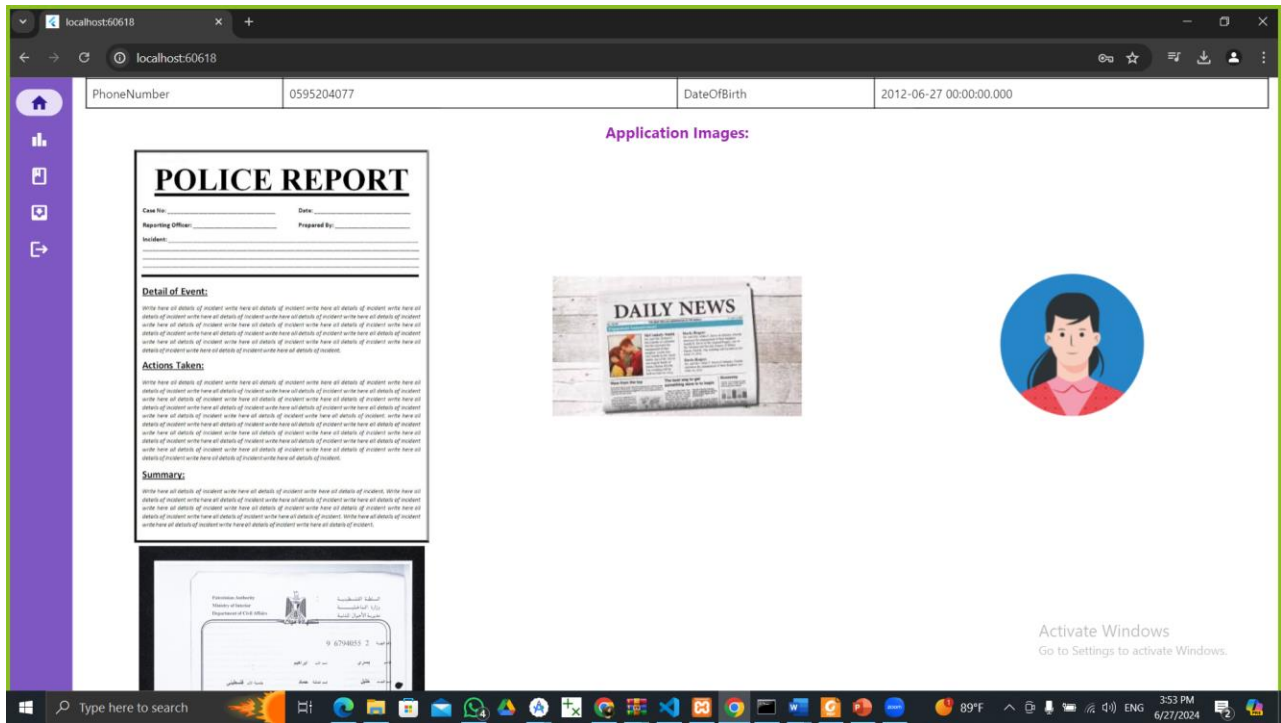


Figure 3-2-2- 72

If the worker chose reject he will be asked for the rejection reason, and if he accepts he will be asked for the estimated date for the documents to be ready for the user:

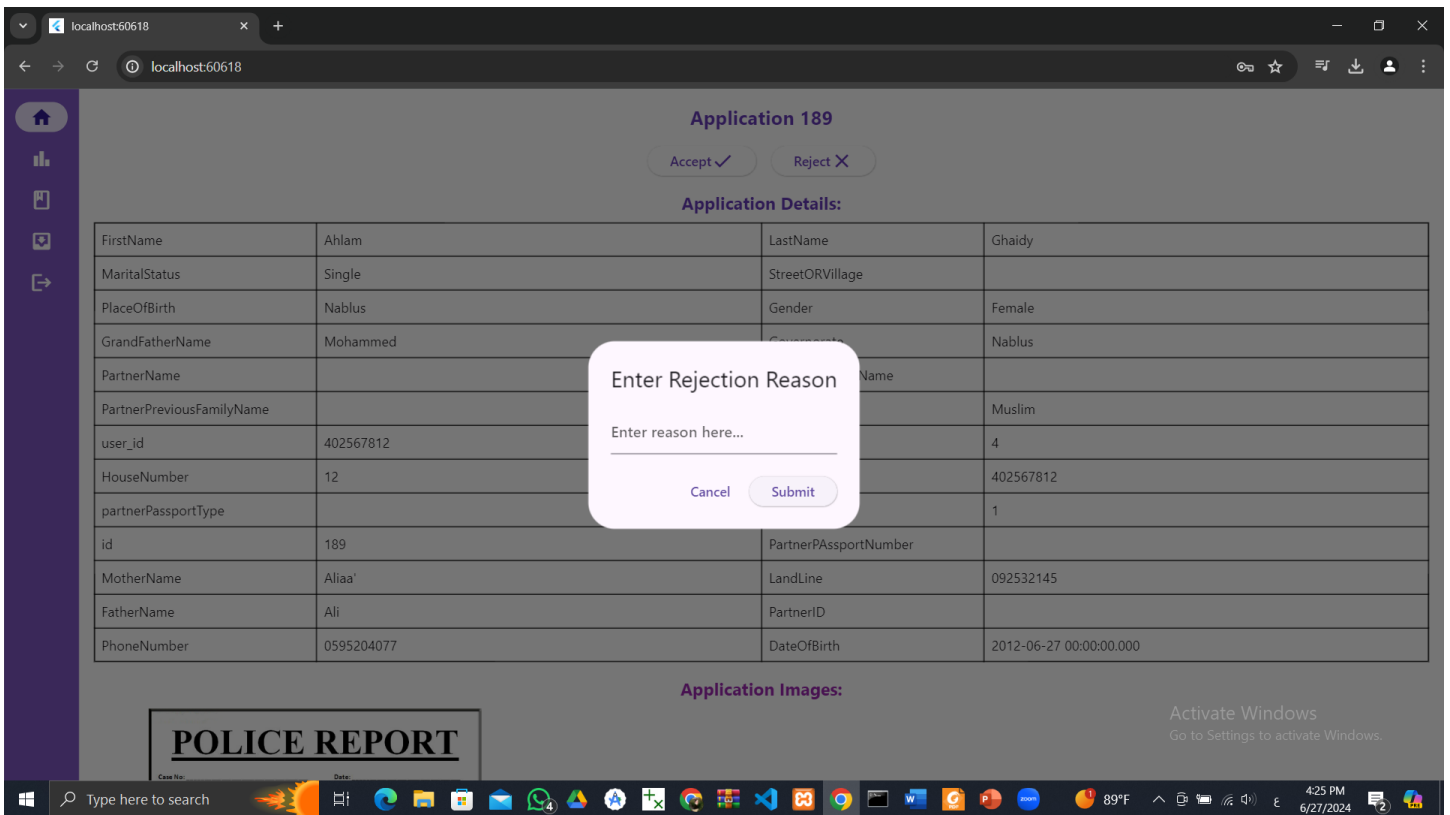


Figure 3-2-2- 73

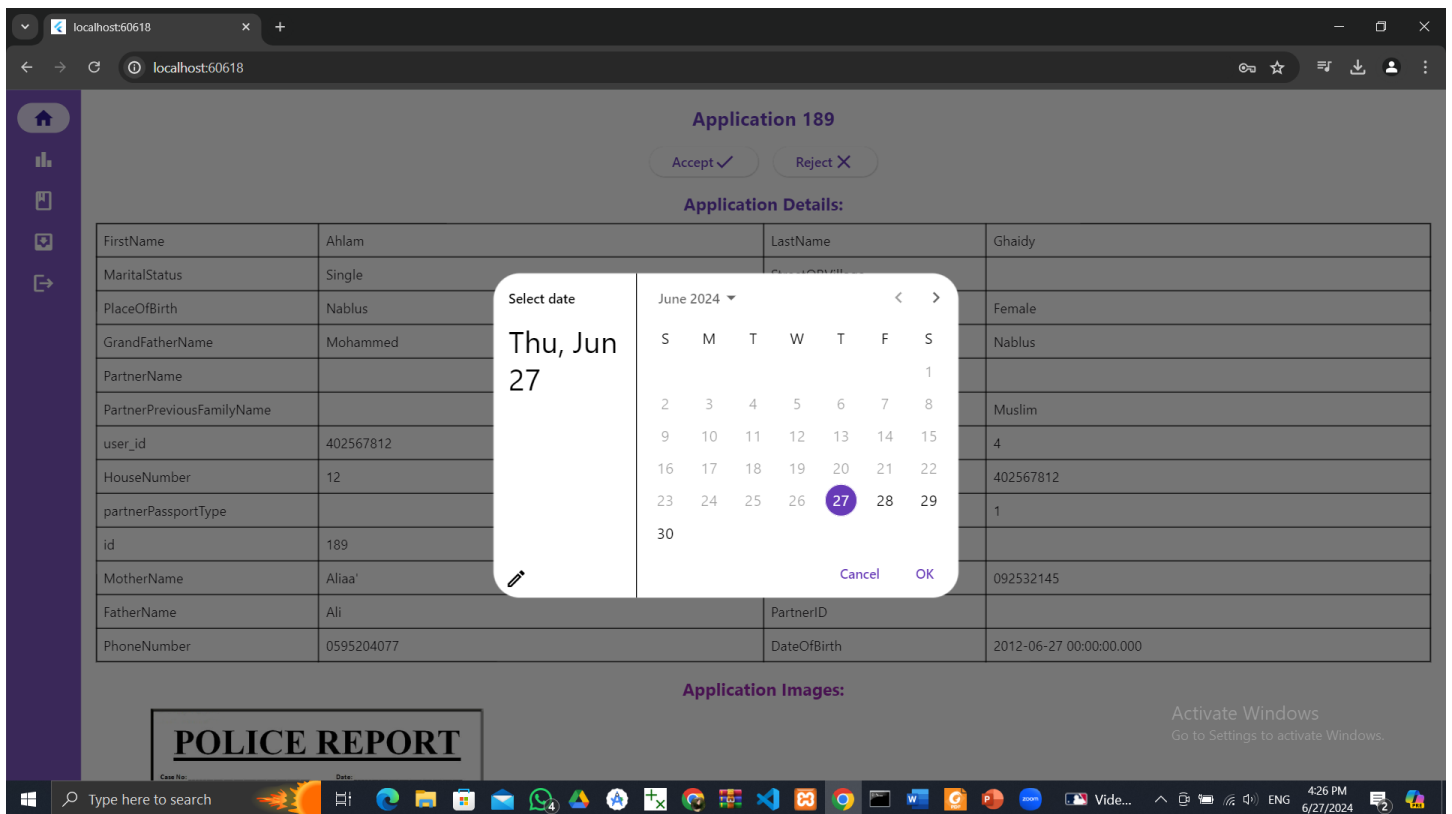


Figure 3-2-2- 74

Now lets set the date for after 2 days and accept the application, and the user will be notified of the accepted application:

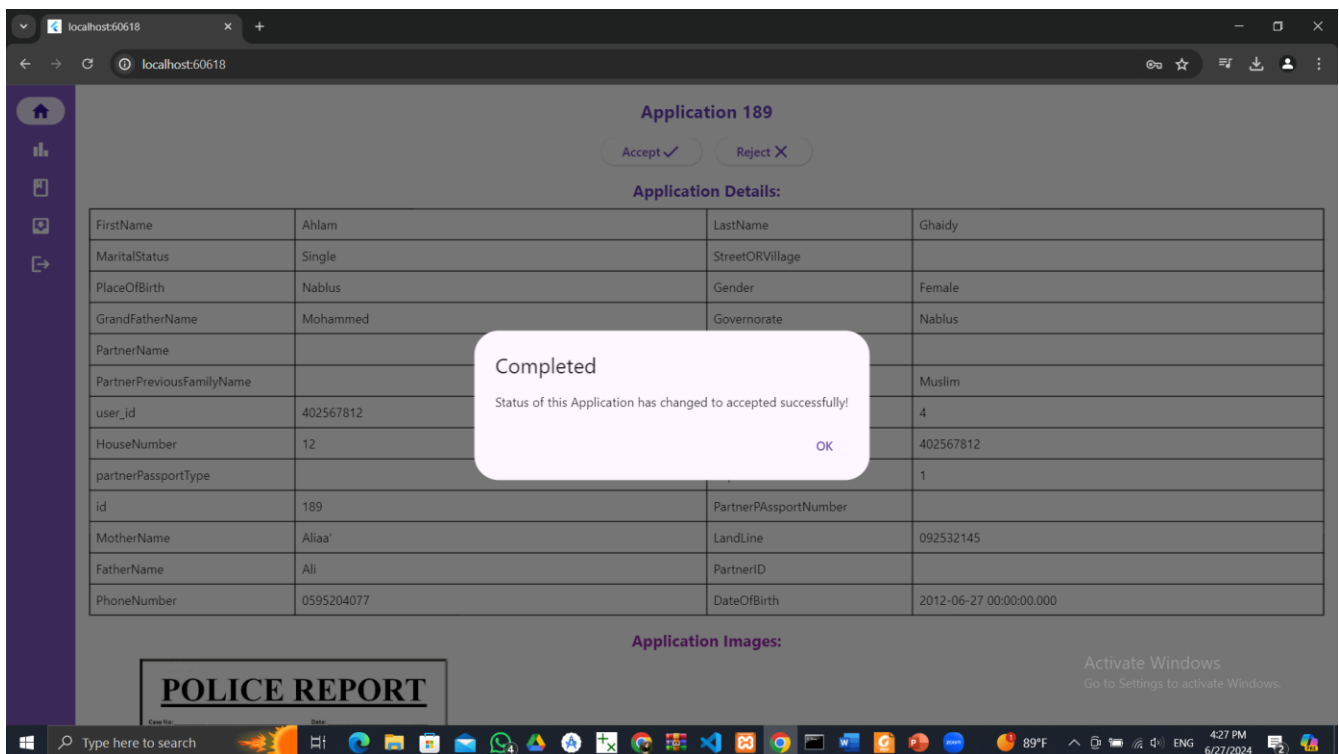


Figure 3-2-2- 75

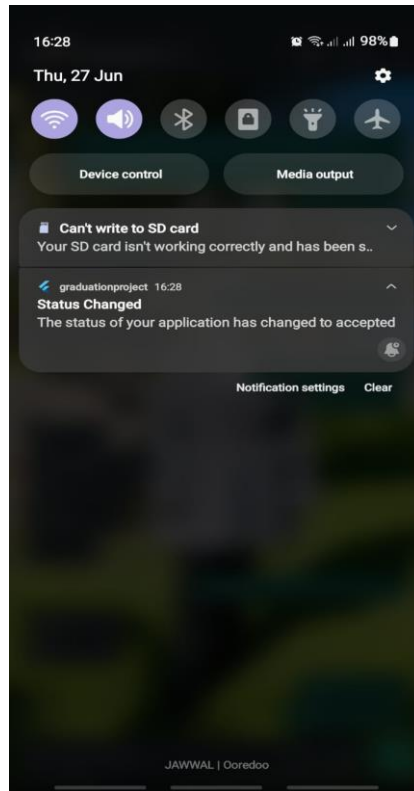


Figure 3-2-2- 76

There is a page only for the governmental worker, which is the Notify page, in this page the admin can notify the users that have accepted applications that their application is now ready, so they can go get it.

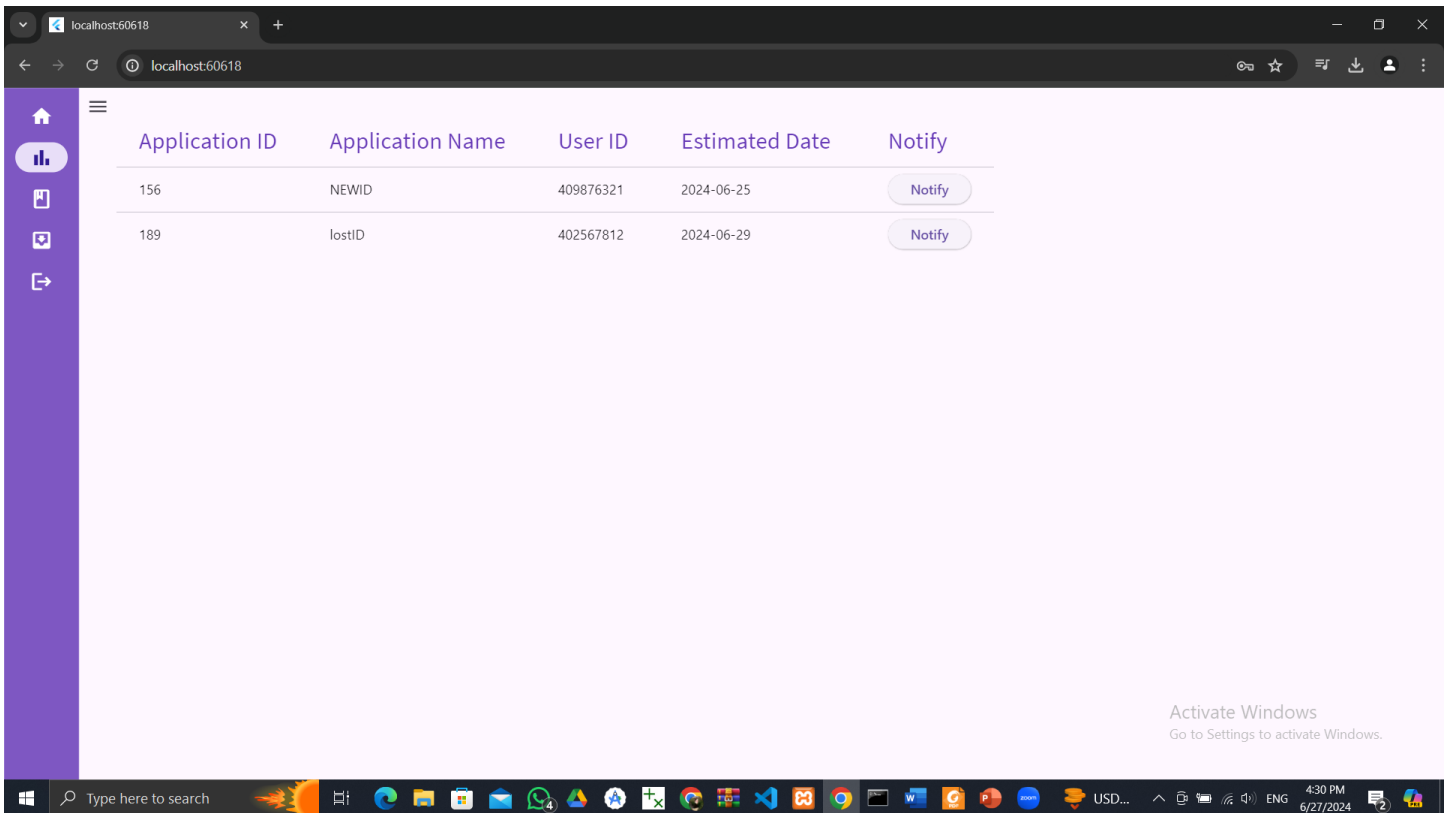


Figure 3-2-2- 77

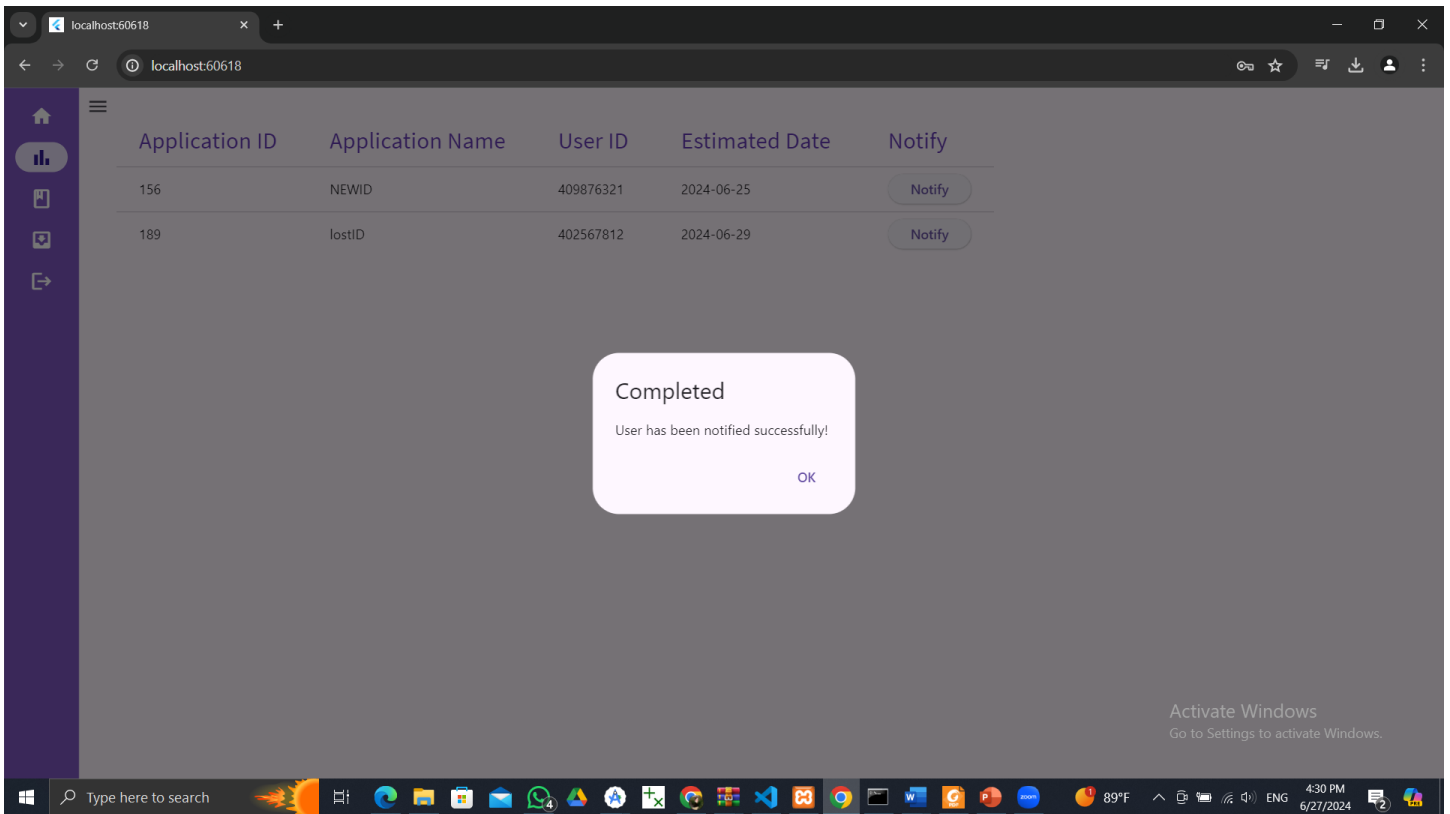


Figure 3-2-2- 78

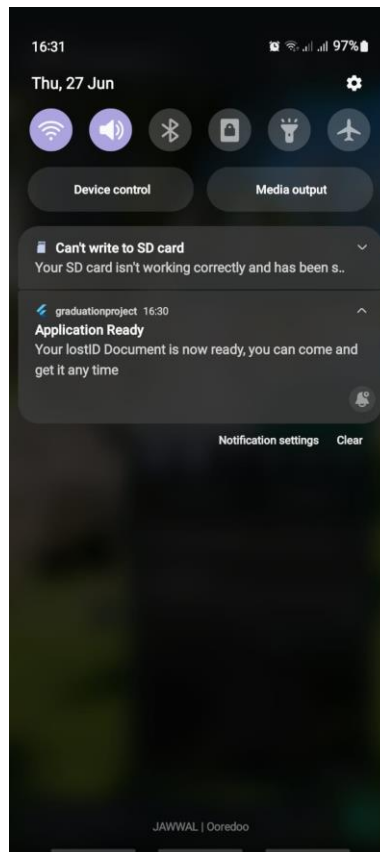


Figure 3-2-2- 79

The inbox for the workers of all department is the same, the admin can see if he has new messages, and can start a new conversation with a user using the ID:

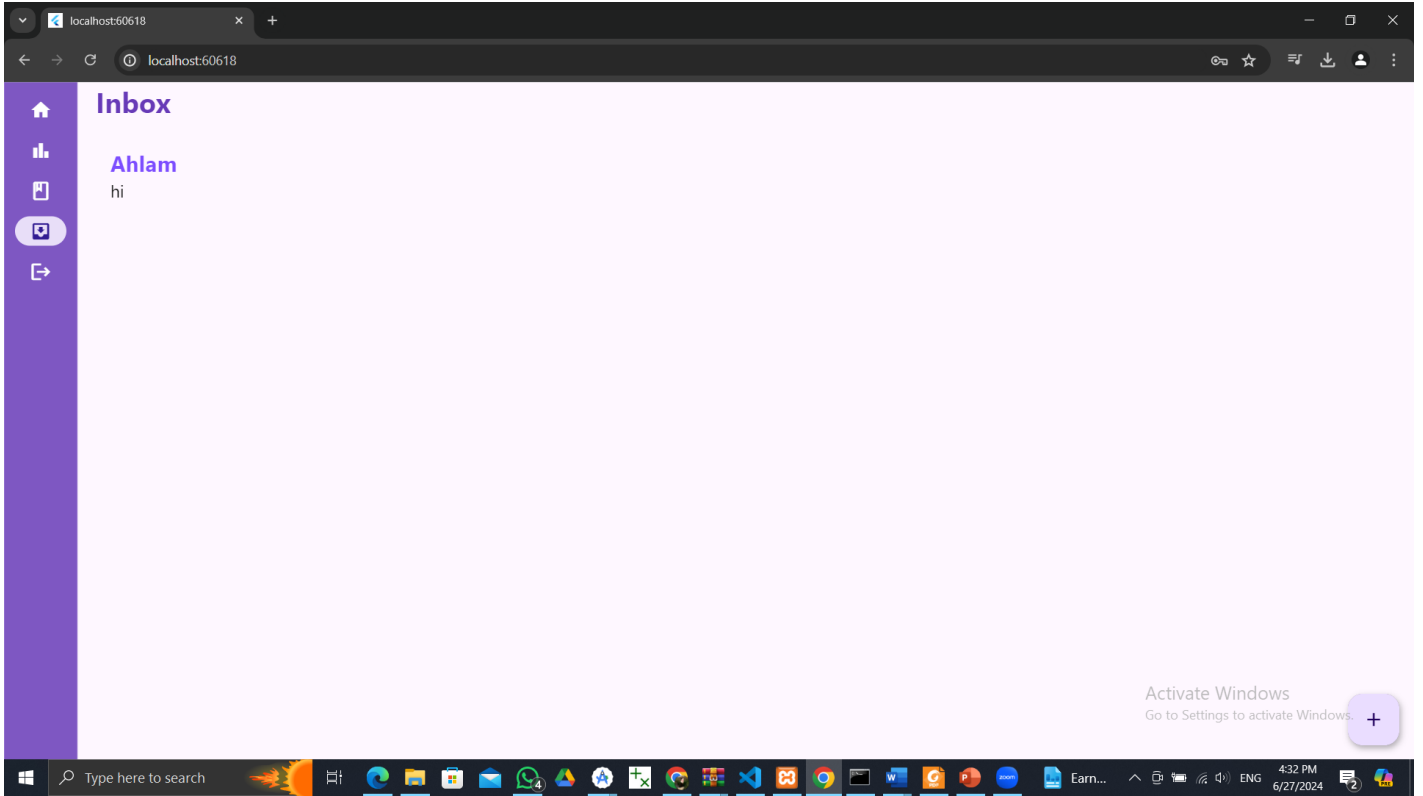


Figure 3-2-2- 80

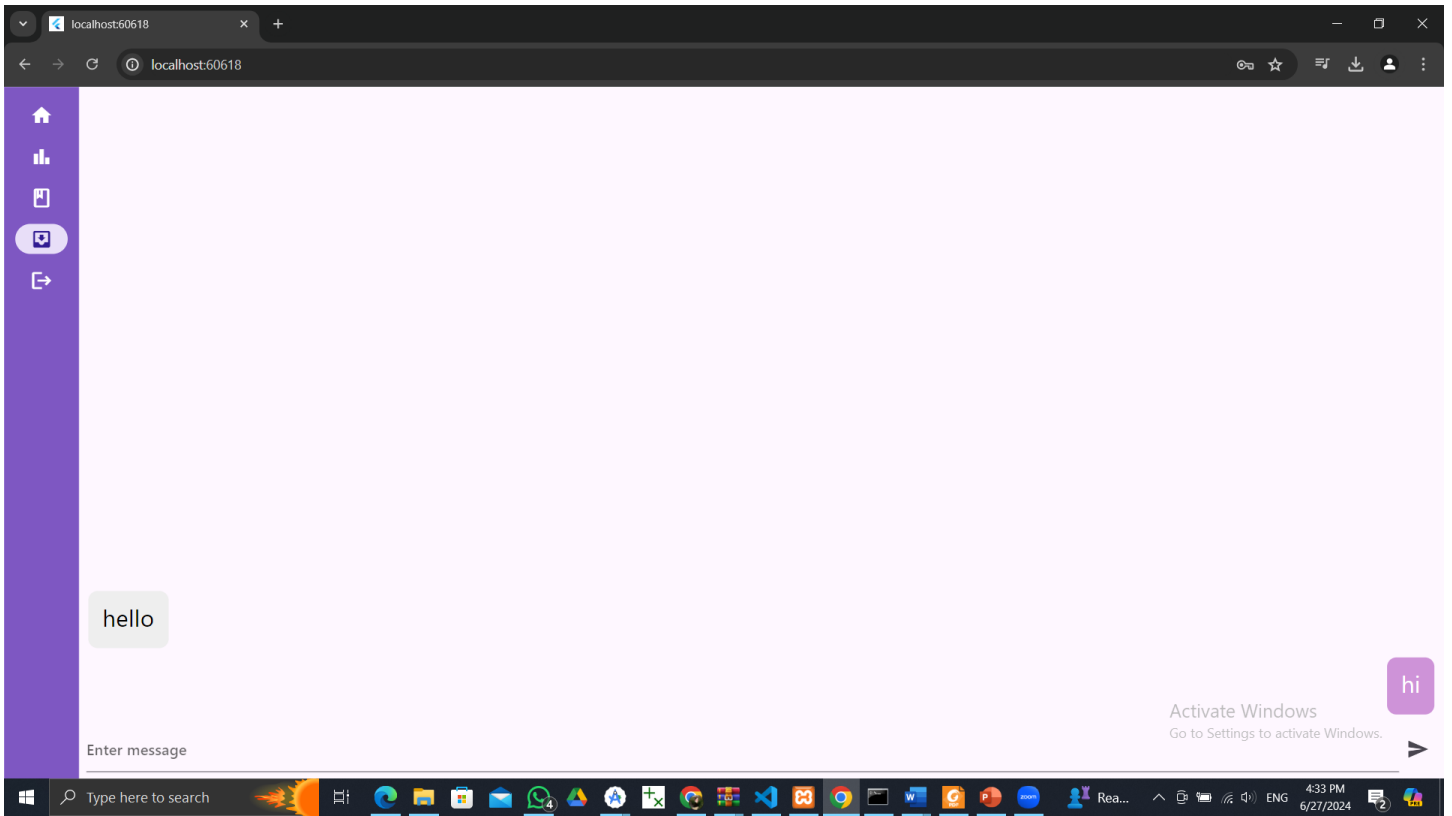


Figure 3-2-2- 81

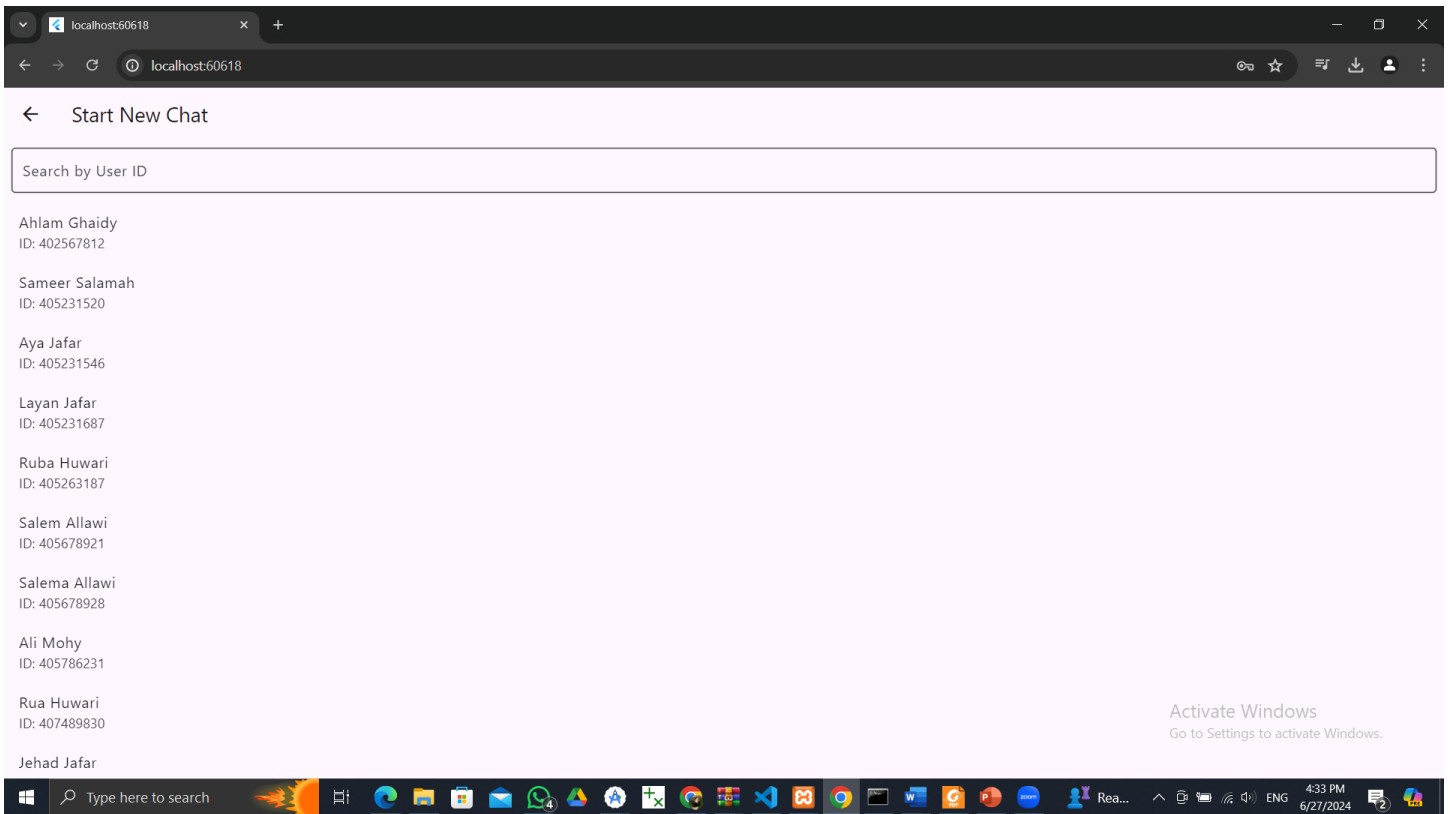


Figure 3-2-2- 82

## Profile Page:

The Profile Page has the same design for all the workers:

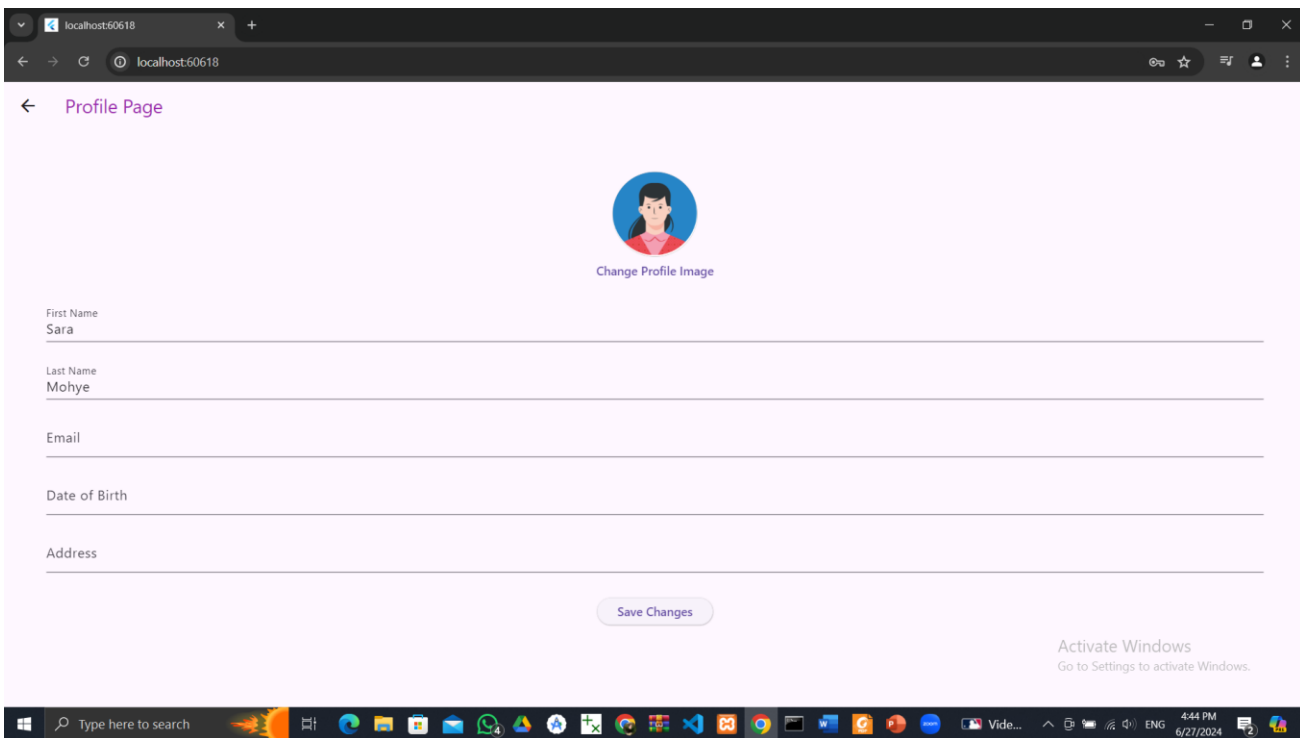


Figure 3-2-2- 83

Now let move to the Schools Worker, schools does not have application forms, so the school admin is responsible for only editing the school info, and answering the questions of the users in the inbox.

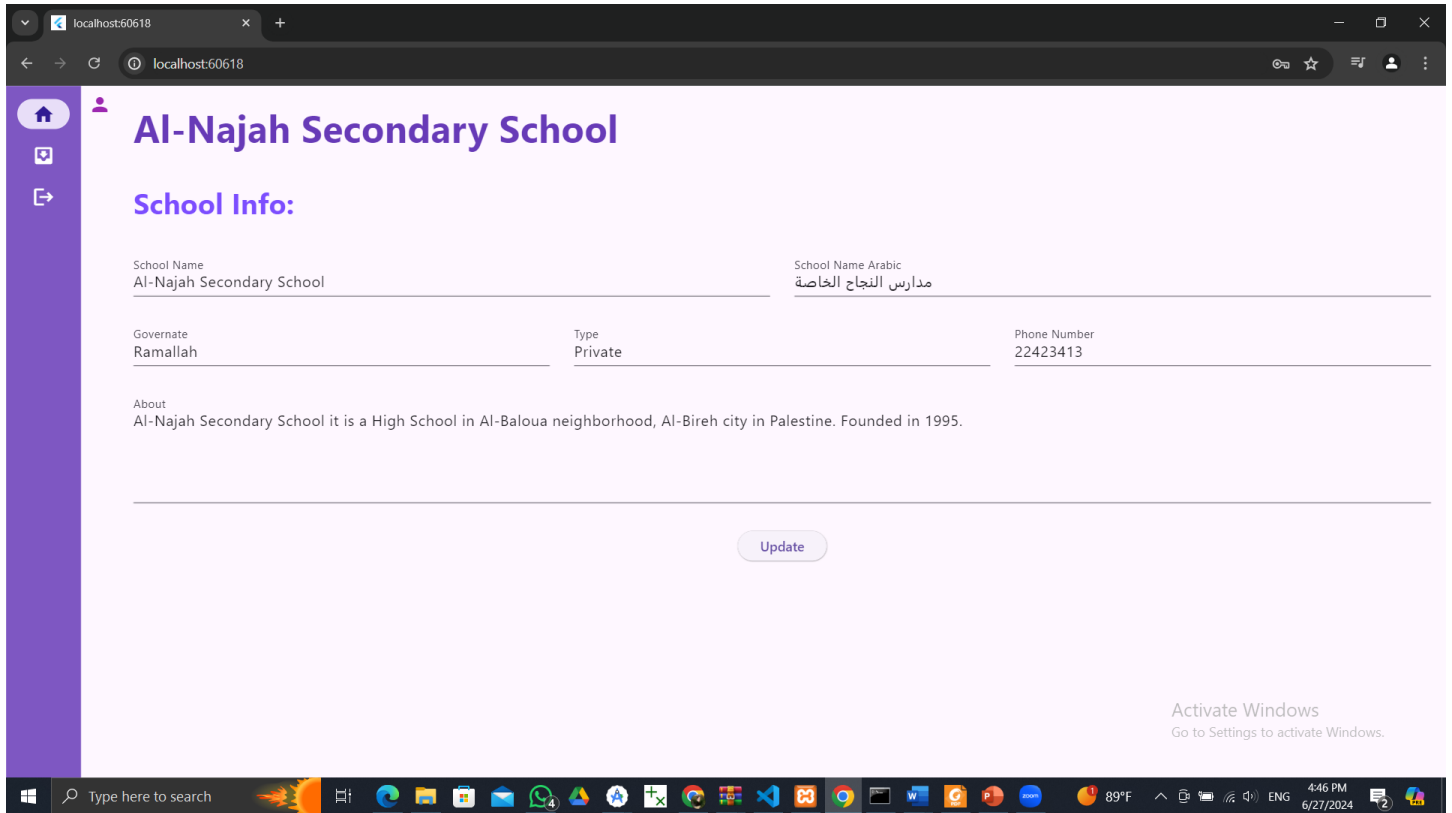


Figure 3-2-2- 84

As you can see in the left navigation rail, the user can just go the inbox, and home pages, and in the home page he can update the school info.

Now for the Universities, university worker is similar to the schools worker, he has only a home page, and inbox page, but he can also update the majors information, delete majors, and add new majors:

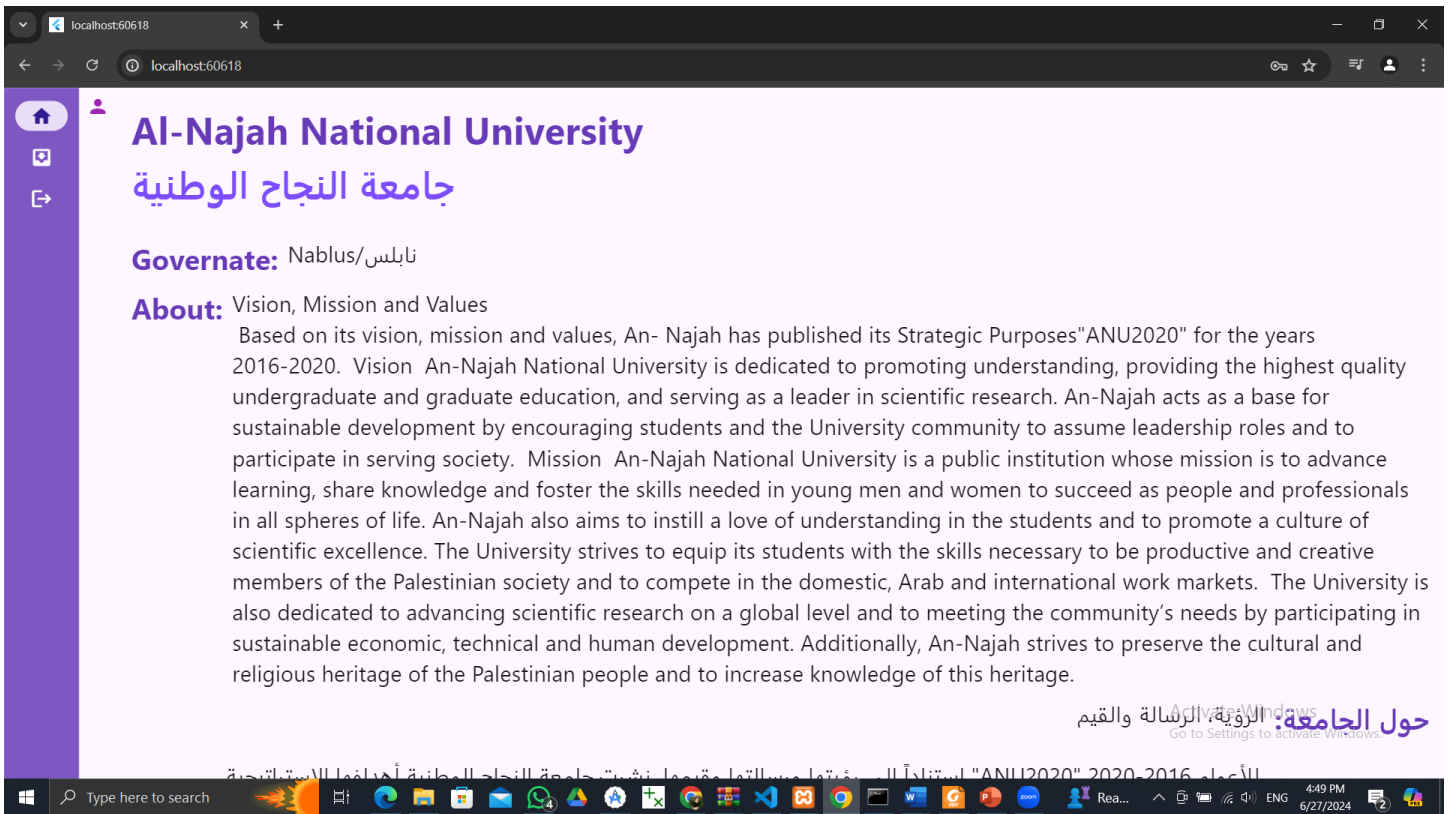


Figure 3-2-2- 85

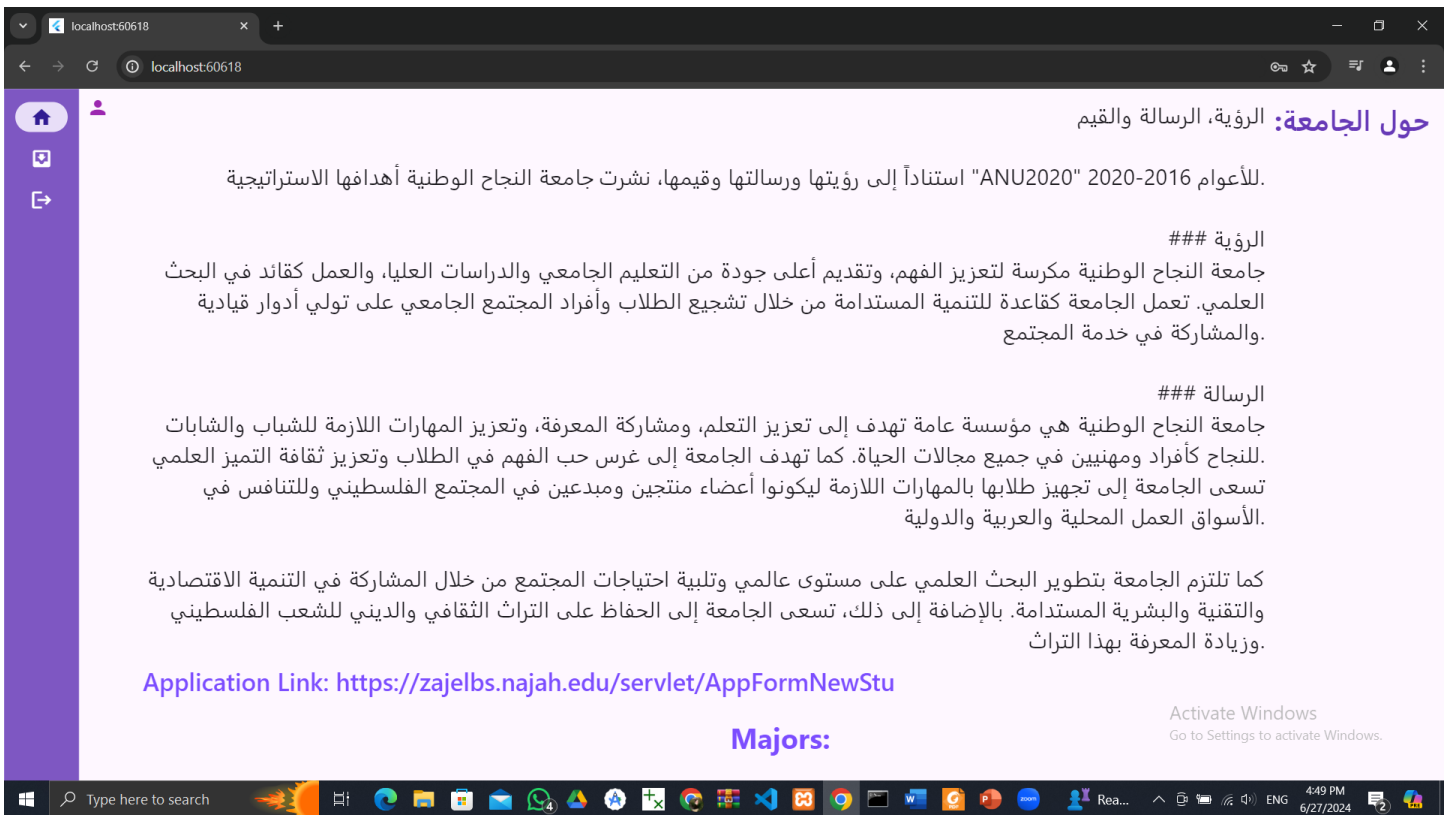


Figure 3-2-2- 86

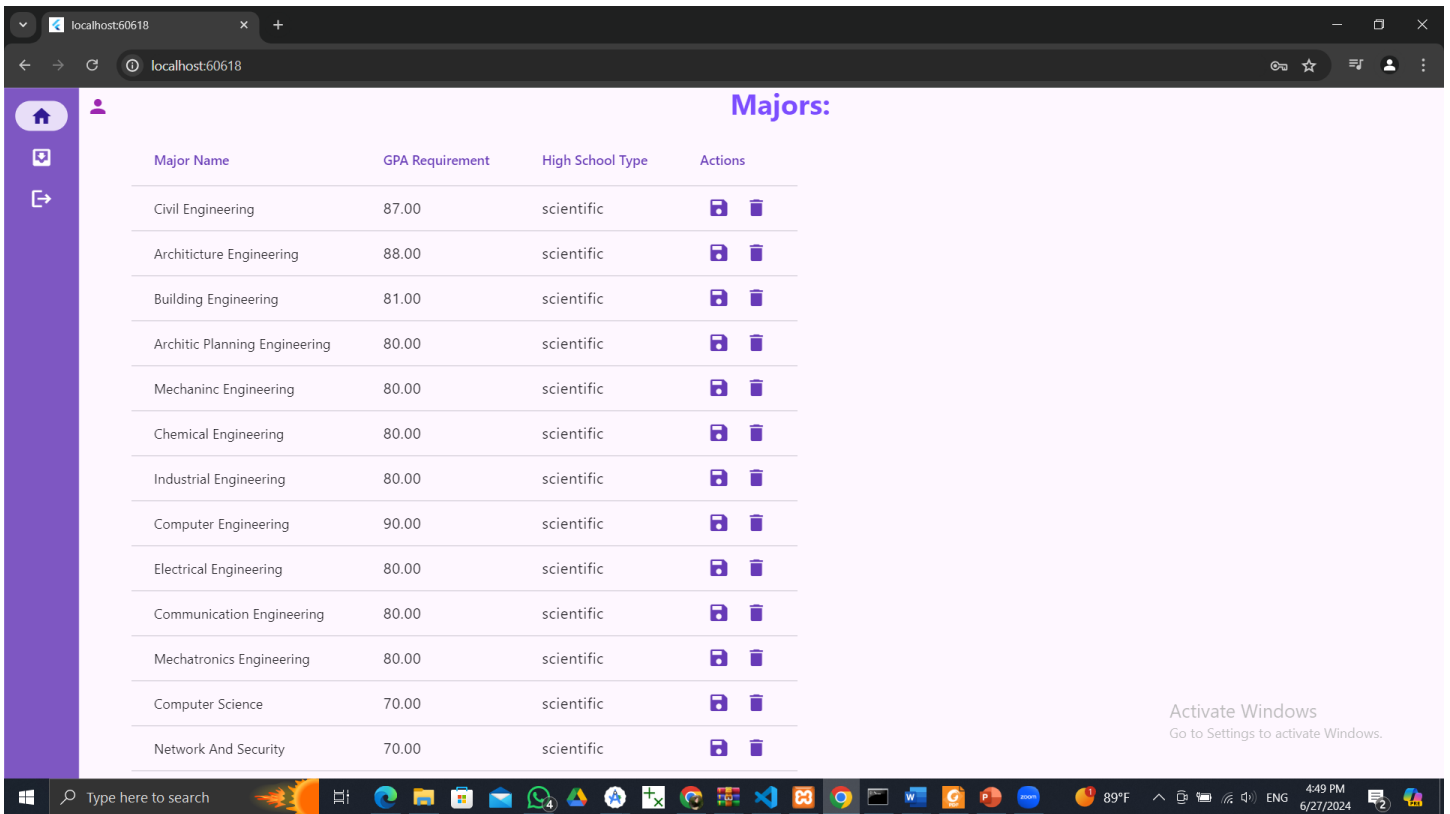


Figure 3-2-2- 87

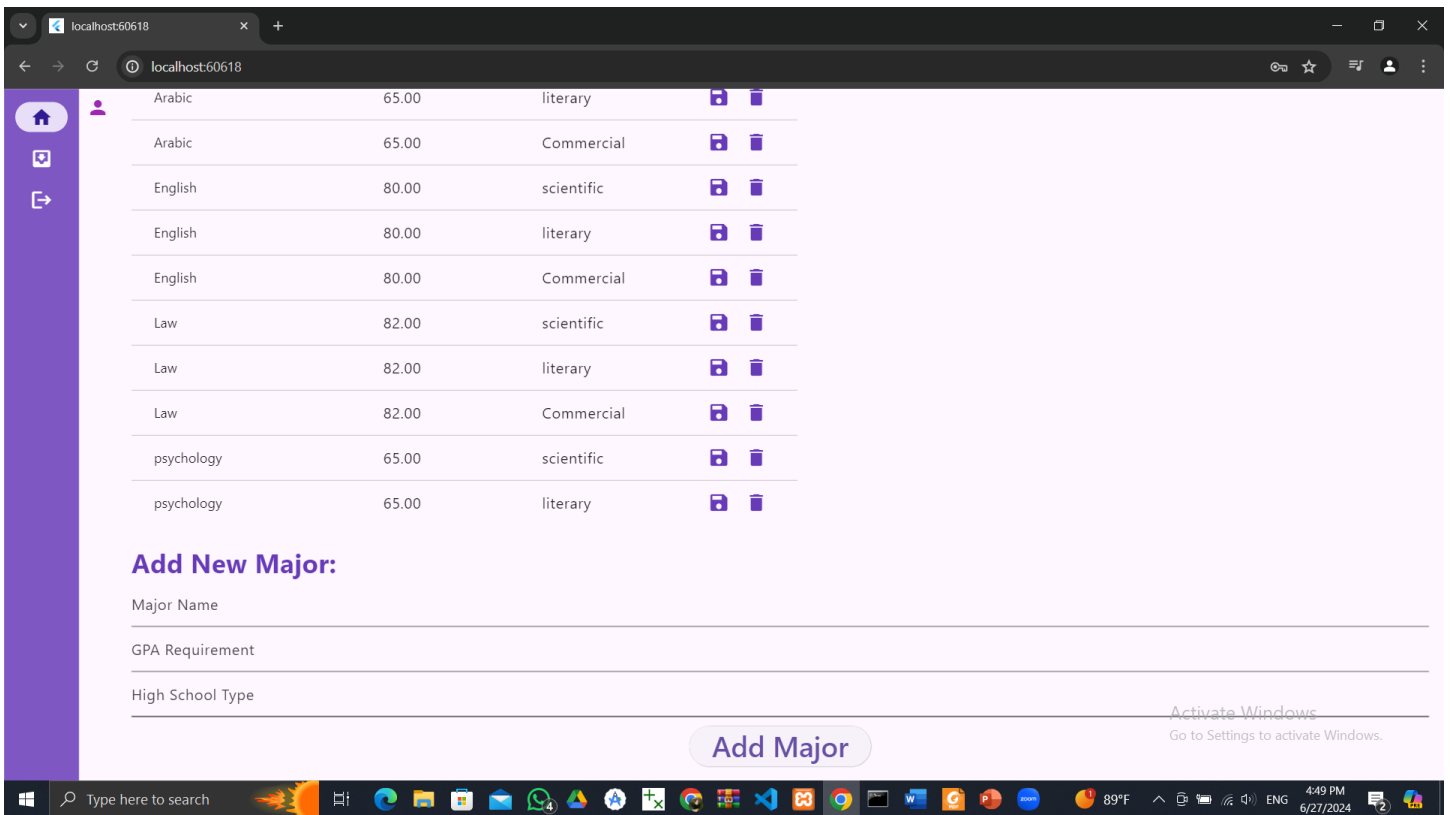


Figure 3-2-2- 88

Now the Special needs center worker, the special needs worker can preview application and accept or reject them like the Governmental worker, and he can also update the centers information:

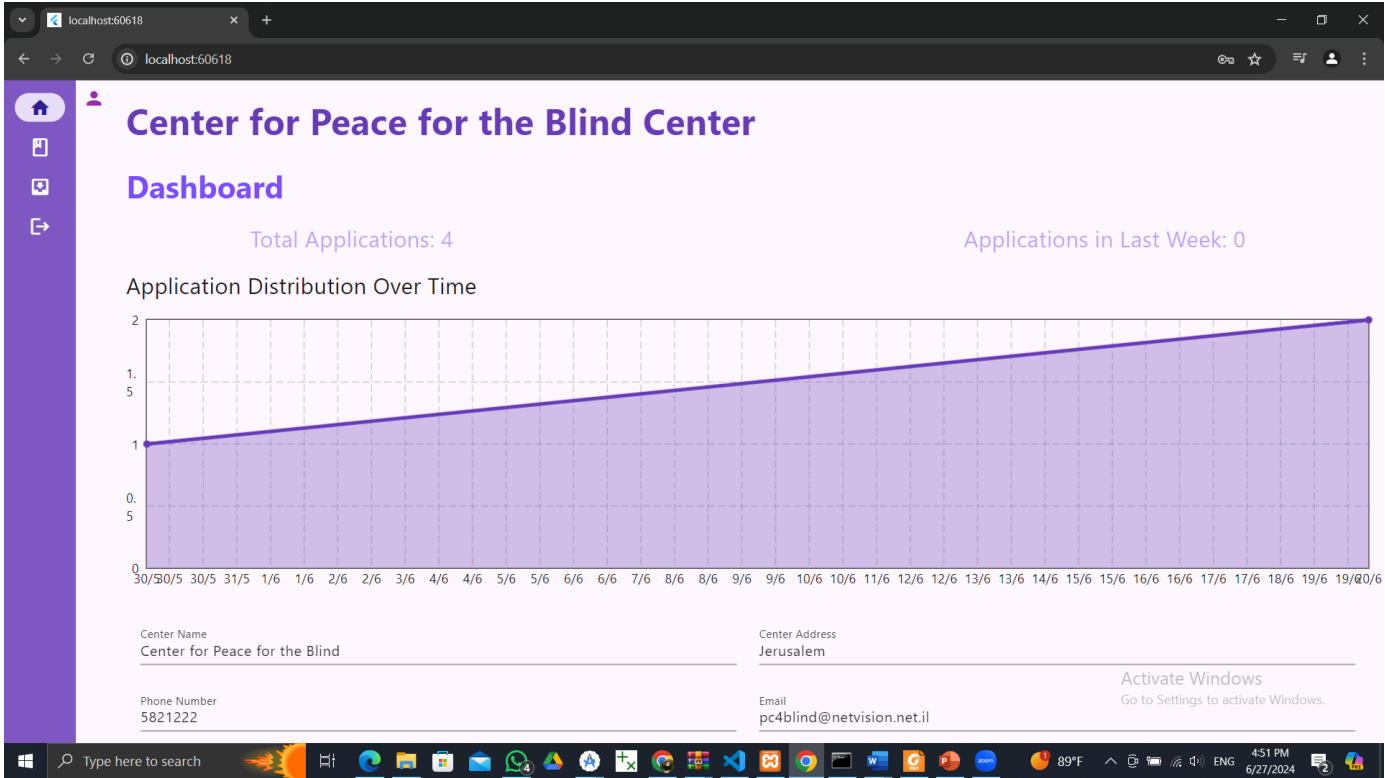


Figure 3-2-2- 89

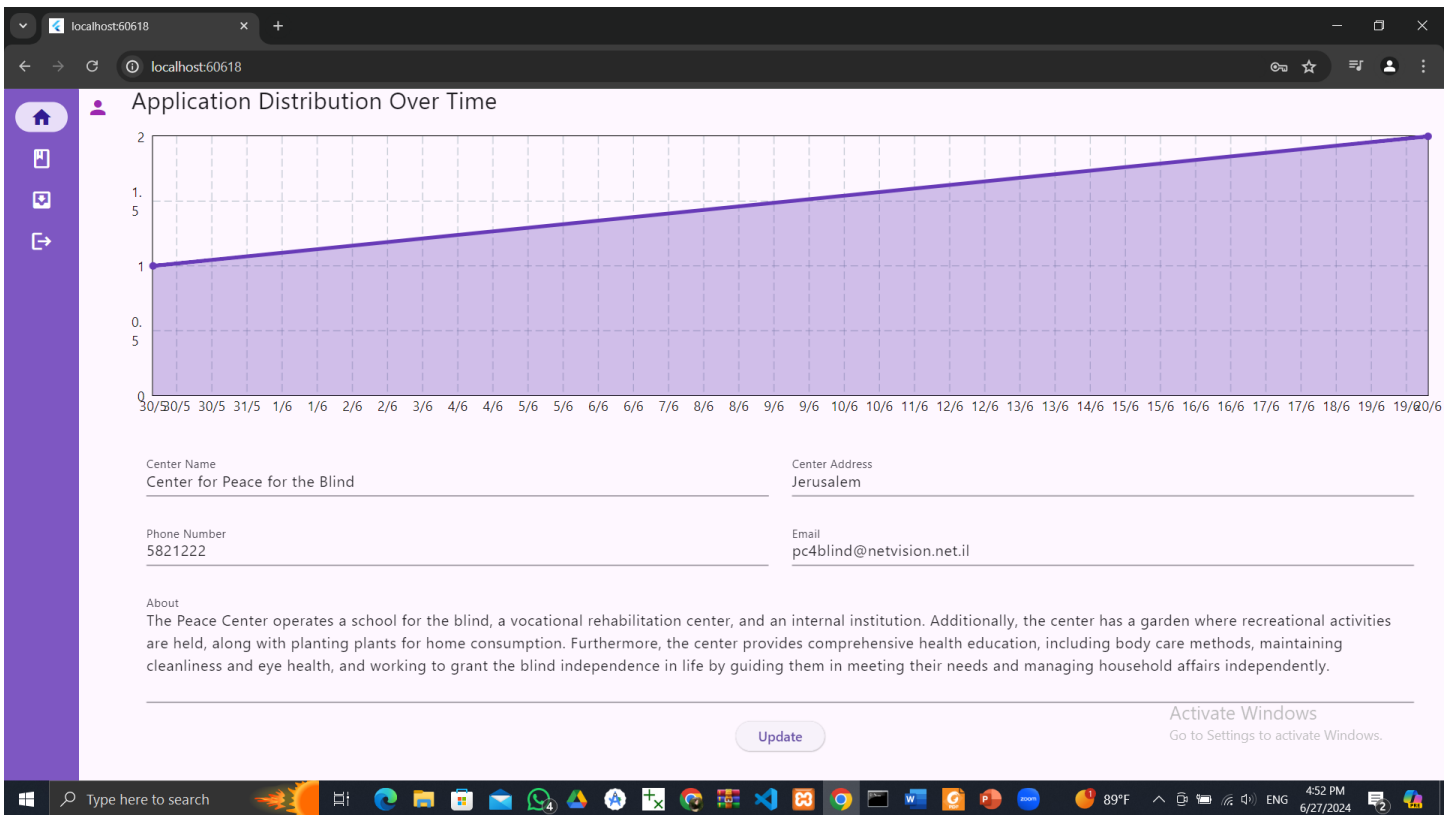


Figure 3-2-2- 90

And can preview the application like the Government worker:

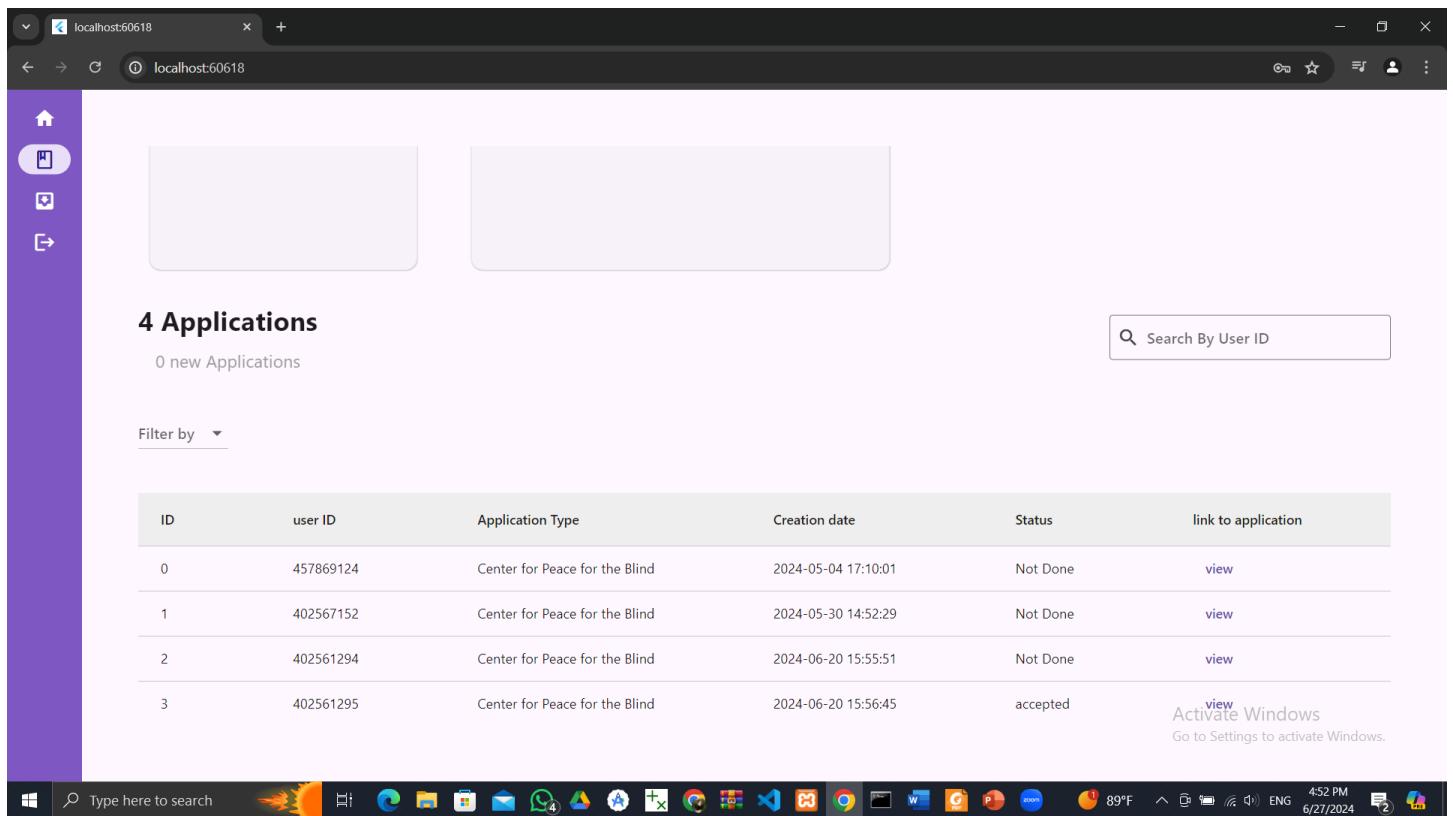


Figure 3-2-2- 91

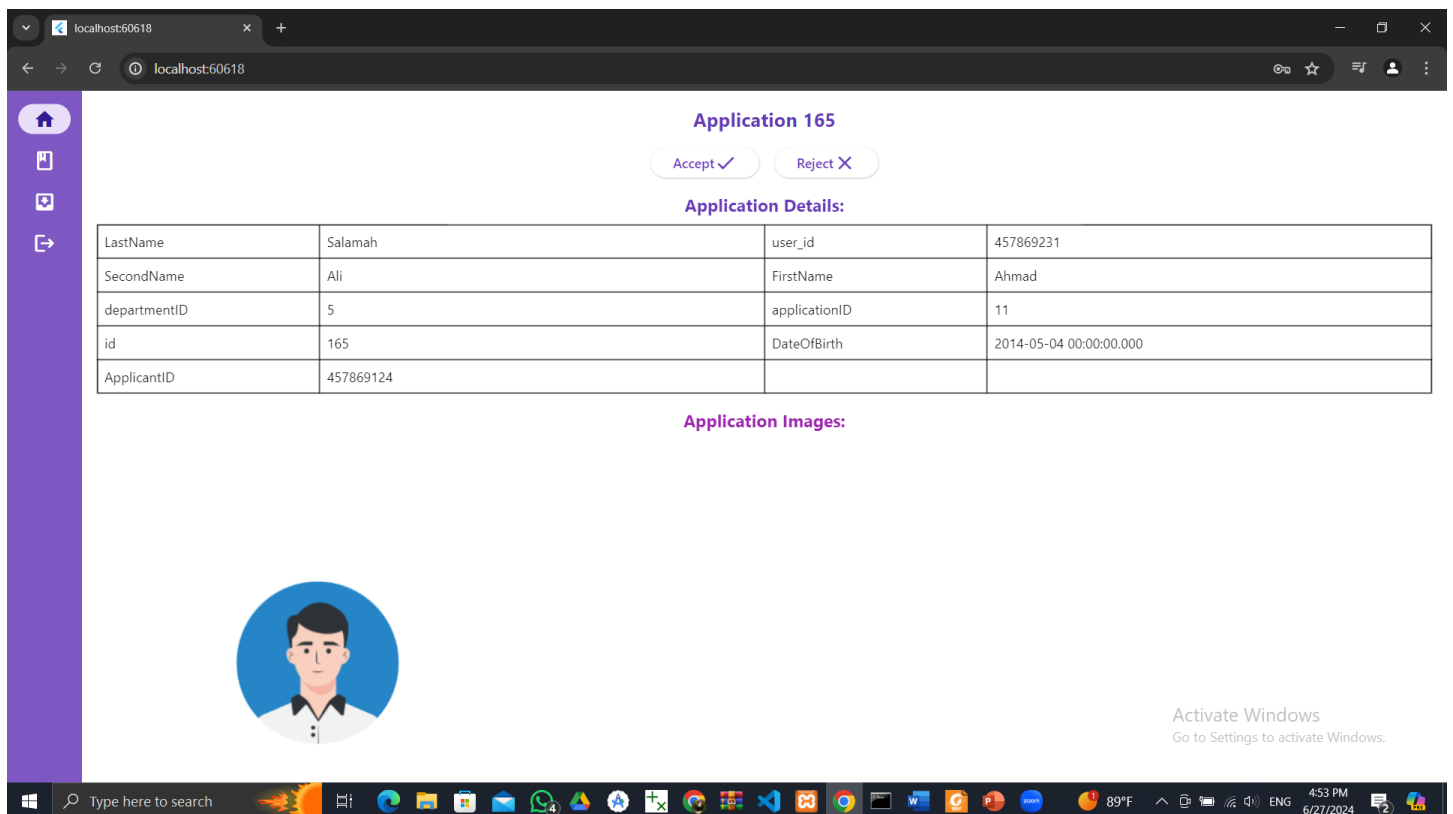


Figure 3-2-2- 92

Now for the Orphanage worker, he is similar to the school and can only update the orphanage info and answer the messages in inbox:

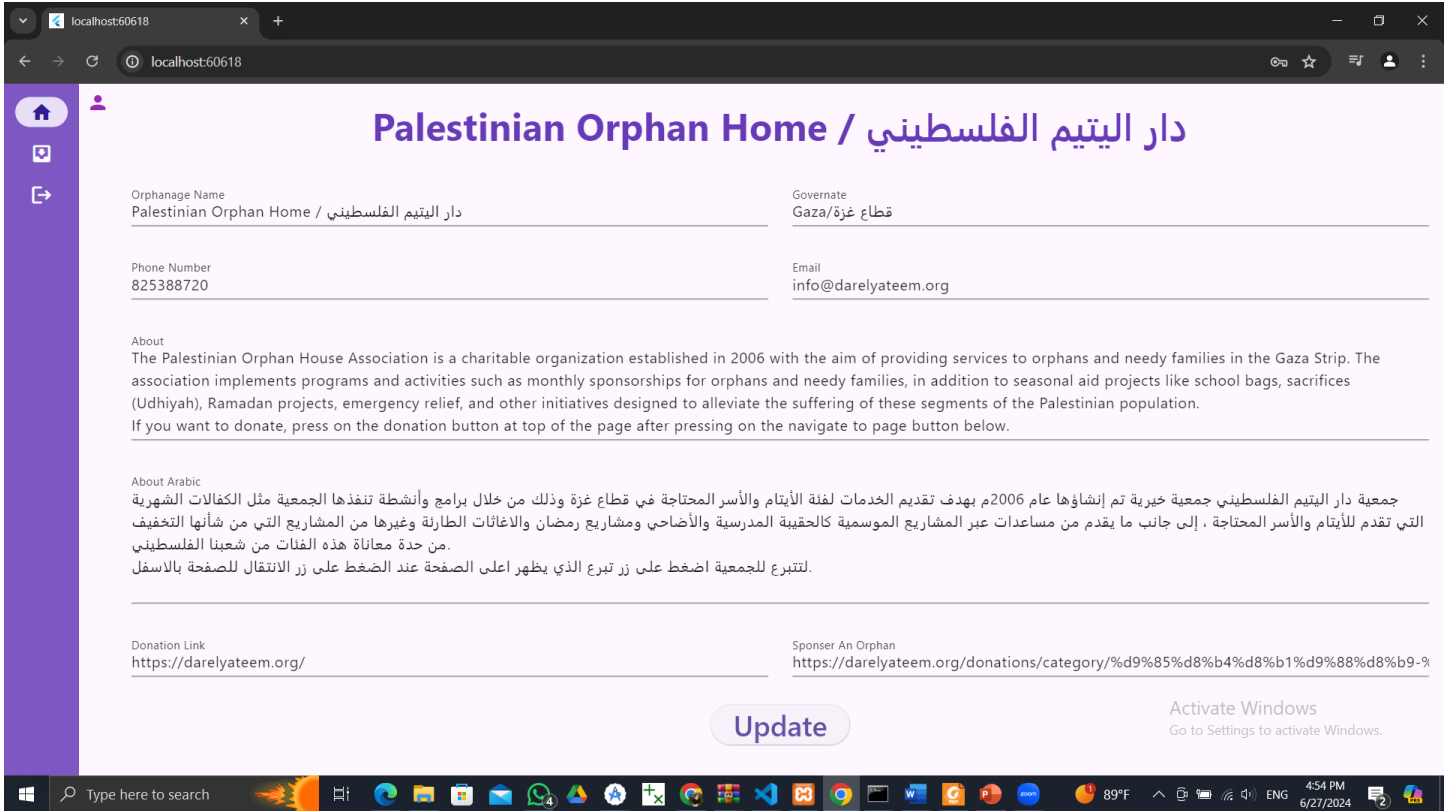


Figure 3-2-2- 93

Now for the Administrator, the administrator in the dashboard can see the application distribution over the other departments, and can process the application ( the ones from signing up as a worker), and approve the request or reject it.

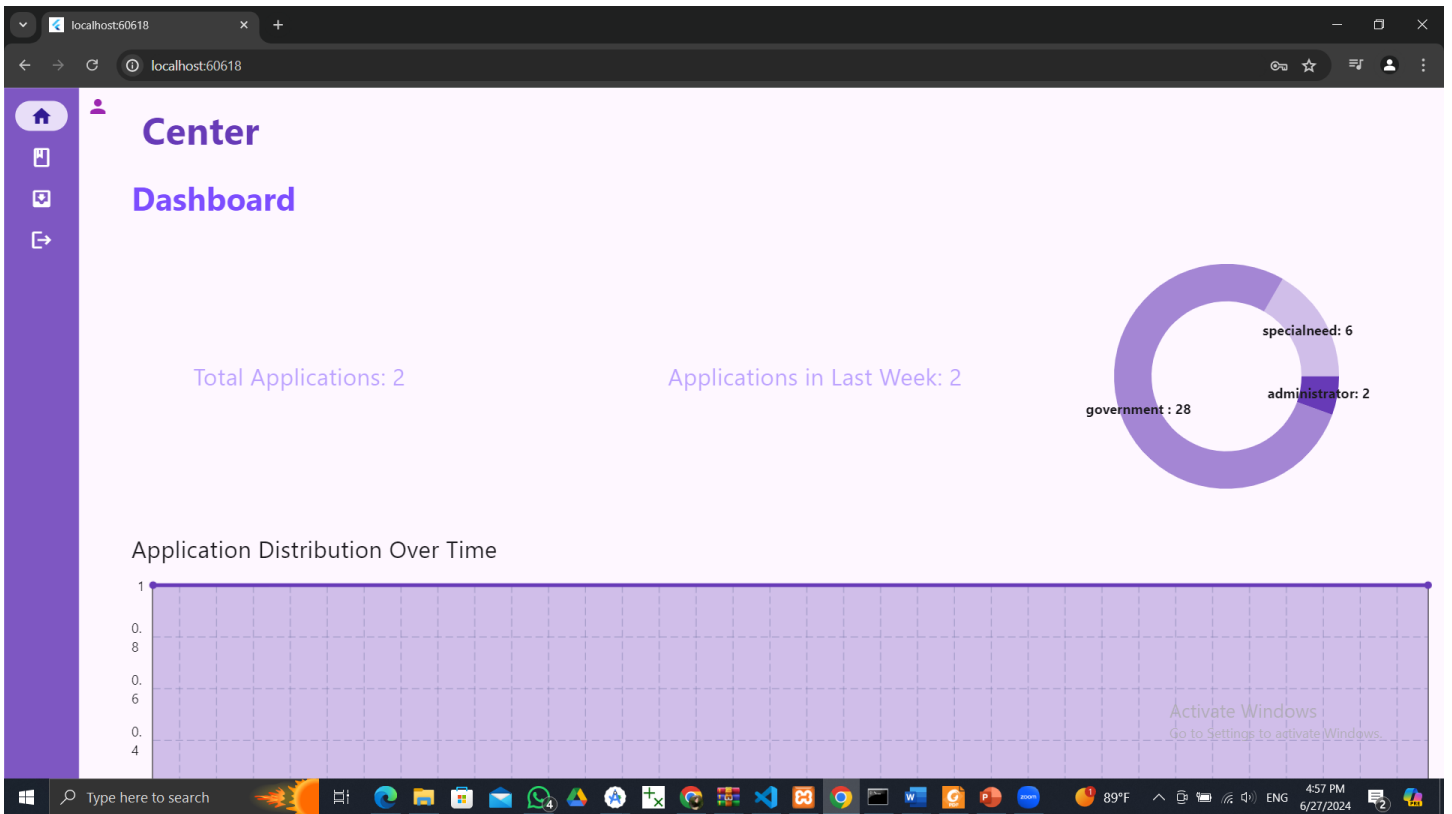


Figure 3-2-2- 94

The dashboard shows 2 applications. Below is a table of application details:

ID	user ID	Application Type	Creation date	Status	link to application
0	405678921	workersignup	2024-06-24 17:26:46	accepted	<a href="#">view</a>
1	405678928	workersignup	2024-06-26 17:29:26	Not Done	<a href="#">view</a>

Figure 3-2-2- 95

## **Chapter 4: Constraints:**

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Through out the project, we faced some constraints in completing the project

- We found it difficult to keep track of the continuous changes in flutter framework, it was hard to stay up to date, and for some feature, it was harder to know how to do something because we can't find a new enough tutorial.
- It was a little hard to find the packages that work for both web and mobile, some packages work only for mobile, like google pay.
- At first, we intended to use PayPal for the payment method, but found that it is disabled in here and we can't get an API, so we started searching for other secure payment ways.
- It was challenging to find data about orphanages and special needs centers in Palestine, there is no websites for them and we can just collect from different websites and put them together.

## **Chapter 5: Results & Discussion:**

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The creation and building of PalEase have a noteworthy effect on the technology applications in Palestine, it addresses some particular issues that Palestinians people face from time to time, and it simplifies the life of the people by giving them the ability to finish what usually take two to three visits to the governmental institutes in just one visit after everything is done using the app.

And it also made the life of the parents and students easier, especially high school students, after they finish their high school, they need to know that universities are there and where to find each major for each university. So we made the searching easier, similar to it is the searching for schools.

For the orphanages, some people may want to donate to the orphanages, but they don't know any specific orphanages to donate to, so they may give their money to some institutes that steals it under the cover of donation. And this problem is solved with the app so now you can find the right donation link and be at ease while giving your money.

In summary, the establishment of PalEase can make the life of people easier and simpler, and there are still a lot other services that can be added to the app to make it help more people, and make the life much easier.

## **Chapter 6: Conclusion:**

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PalEase is a shining example in how technology can make life easier and simpler if used in the right way and had important feature to make everything easier. It's success highlight the importance of developing apps while keeping the user and his needs in mind through the development process. PalEase set the stage for future technological advancements in Palestine.

## Chapter 7: Future Work:

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The application has the ability to become larger, there are many services that can be added, in the future we intend to add a section for the Courts, that had lawyers and their contact info and field of work. We will also add a section for Clinics and Hospitals, so we can make the reservations for check easier and faster. we will also add modifications for the existed Education Section, and search for ways to make it much more practical.

We will also look at the feedback we get and modify the application accordingly, so it will as much user friendly as possible.

## Chapter 8: References:

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1. Island.is website : <https://island.is/>
2. Firebase: Firebase website. Available at: <https://firebase.google.com/>
3. MySQL Data Base