Final Report
Android Project: Service Novigrad

SEG2105A: Introduction to Software Engineering

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Table of Contents

1. Introduction

The Service Novigrad is a mobile application to provide citizens to apply for services, such as a Driver's License, a Photo ID, or a Health Card. There are three roles for users: the administrator, Novigrad branch employees, and customers. Users need to choose their roles during registration. The administrator has the supreme authority to create, edit, or delete services, and delete accounts of employees and customers. Each branch employee can make changes to the working hours of the branch, select services that can be provided in the branch, and handle service requests from customers. Customers can search for a branch by address, type of service provided, or working hours, and select the service they want to process. They also can submit required documents, such as forms and photos, to the selected branch, and rate the branch after the submission.

2. UML Diagram
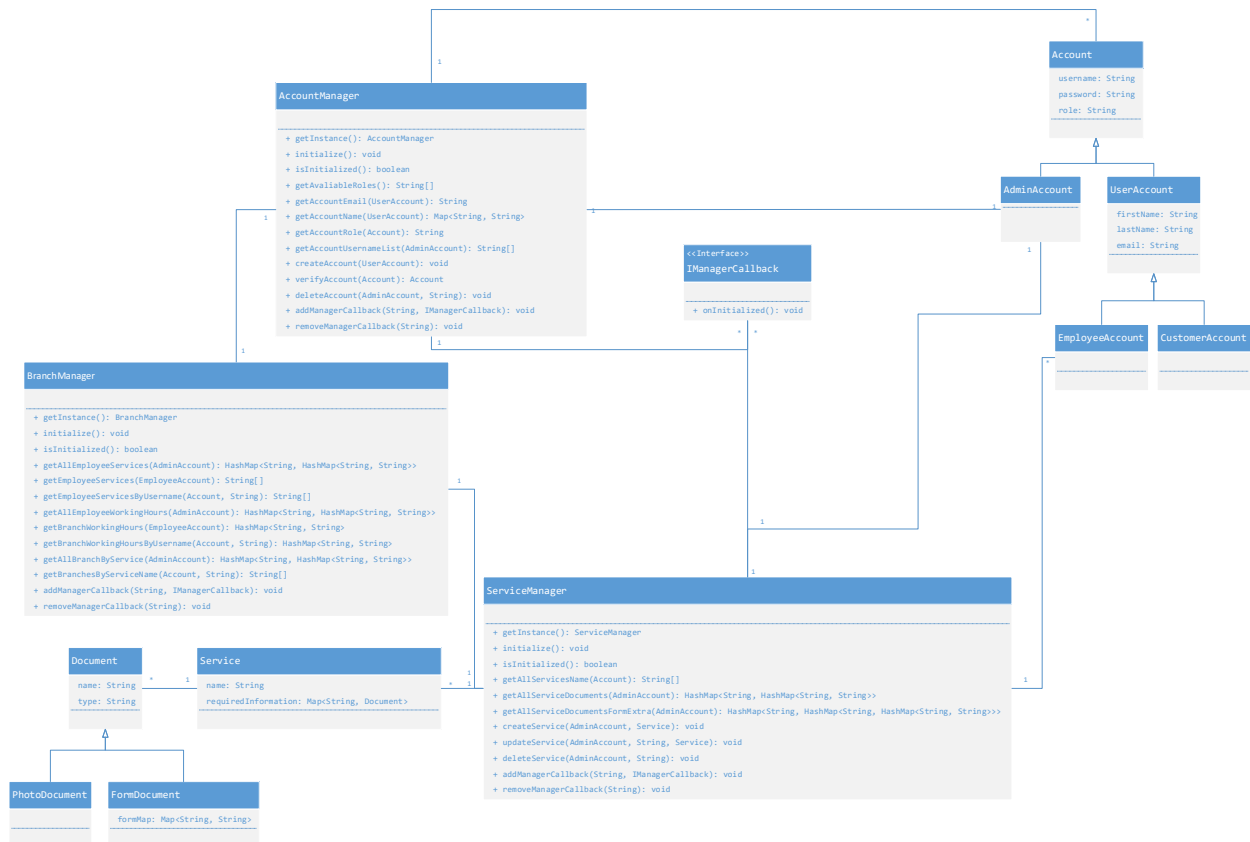
3. Contribution Distribution

Name	Jinrong Guo	Xiaoxuan Wang 👑	Feier Zhang	Lijianing Zhu
ID	8809970	300133594	8589976	300032265
Deliverable 1	12.5%	75%	12.5%	Less than 1%
Deliverable 2	5%	60%	25%	0%
Deliverable 3	30%	45%	25%	0%
Deliverable 4	34%	30%	36%	0%
Description	Program development. Also, Assistant and cooperate with the team members.	Built project framework. Program development and management. Also, offer major technical assistance to the team.	Program development and management, and communication between the team members.	Not involved.

Explanation: Lijianing Zhu only has two commits in Deliverable 1 during the whole project. One of the two commits is pushing an unused icon, and the other is adding night mode for a layout. His commits in total are illustrated below.
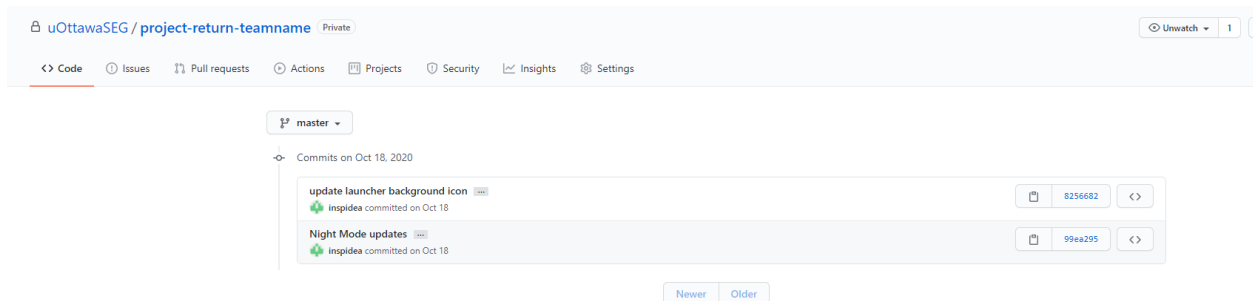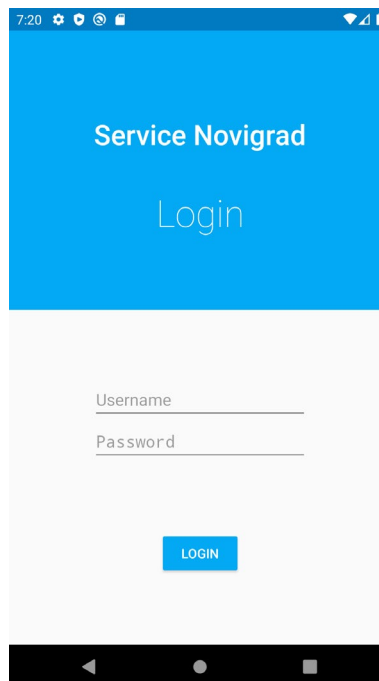
4. Screenshots and Usage Demo

4.1 Application Icon and Main Page
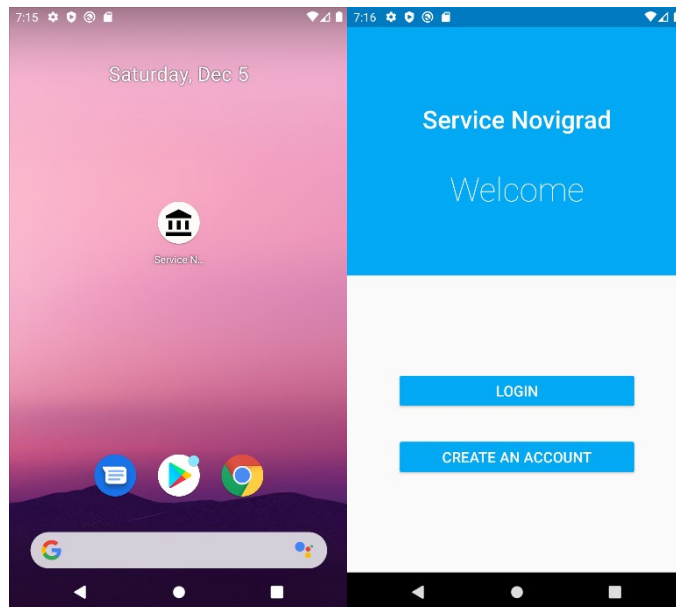
Figure 1 Application Icon and Main Page

4.2 Login Page

After clicking on the icon of the application, the main page with two buttons shows up.
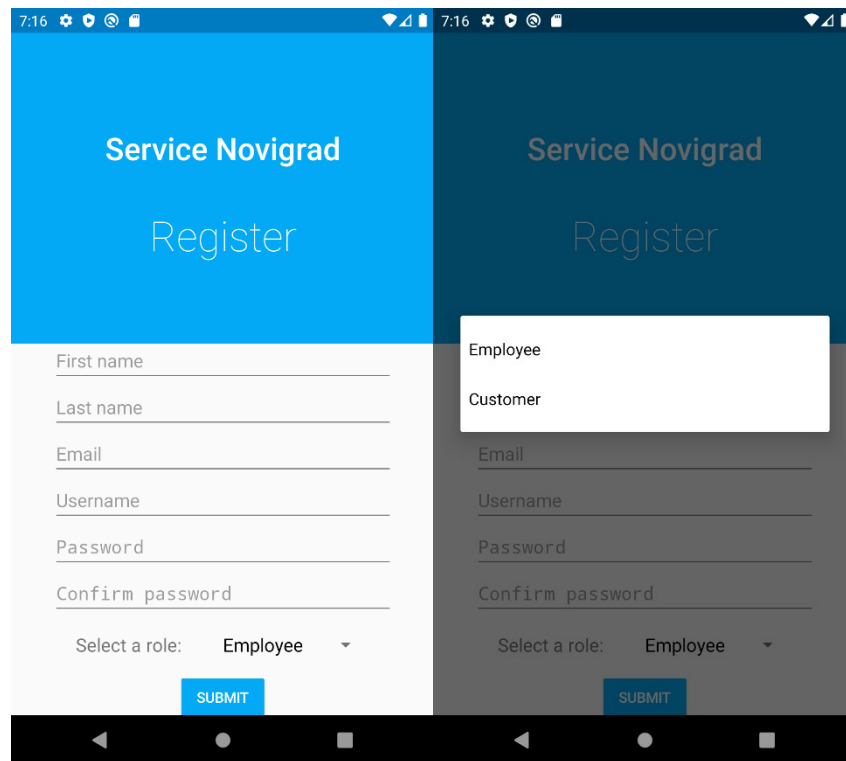

Figure 2 The Login Page

For The Administrator:
- There is a built-in admin account that has full manipulation functionalities. The Administrator may continue without registration.

For Regular Users:
- If the user has an account, you may click the "Login" button to continue.
- Or the user may register a new account as illustrated in the following section.

4.3 Register Page

Figure 3 The Register Page

- A username may not coincide with any other usernames on record, since a username is a global identifier to an account.
- The user may choose the account role either to be "Employee" or "Customer".

4.2 Logged in as Administrator:
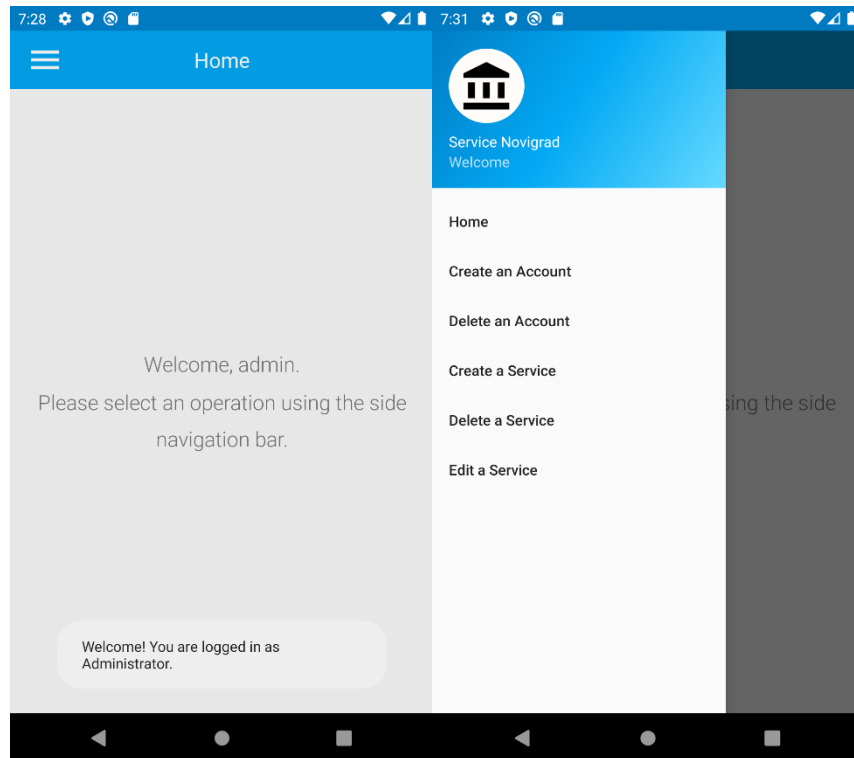
Figure 4 The Welcome Page (Left) And The Navigation Drawer (Right).

By either:

- clicking on the icon that resides the top-left most,
- or swiping right from the left side of the screen edge,

the navigation drawer will show up, which contains the following options for the Administrator:

- Create an account
- Delete an account
- Create a service
- Delete a service
- Edit a service

4.3 Administrator: Function Demo

Figure 5 Create account page: Admin creates an account with username TestAccount

Figure 6 Delete account page: After selecting the username, the account has been deleted
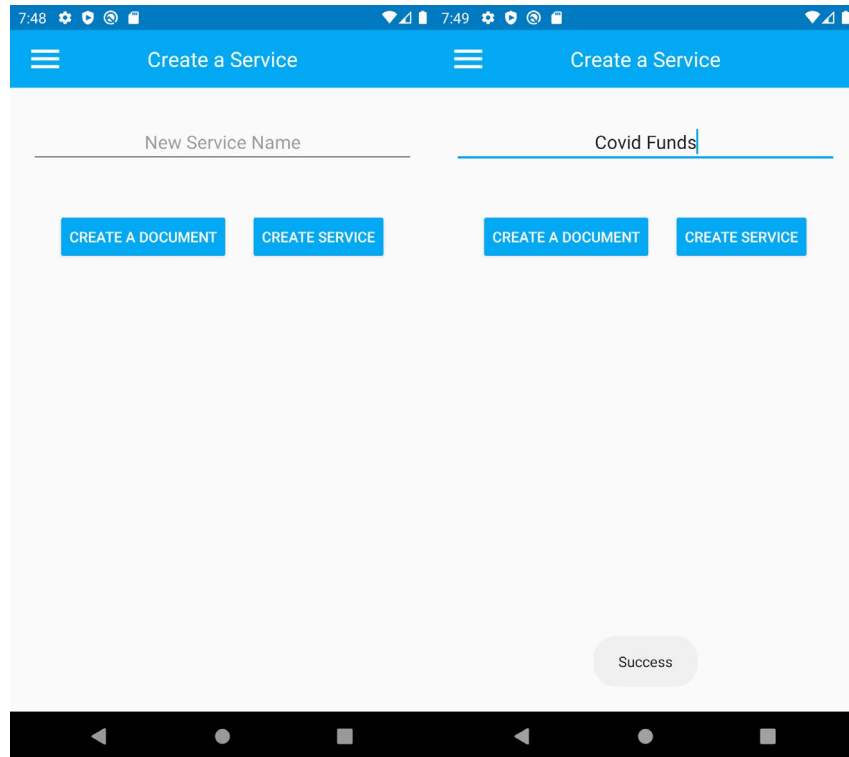
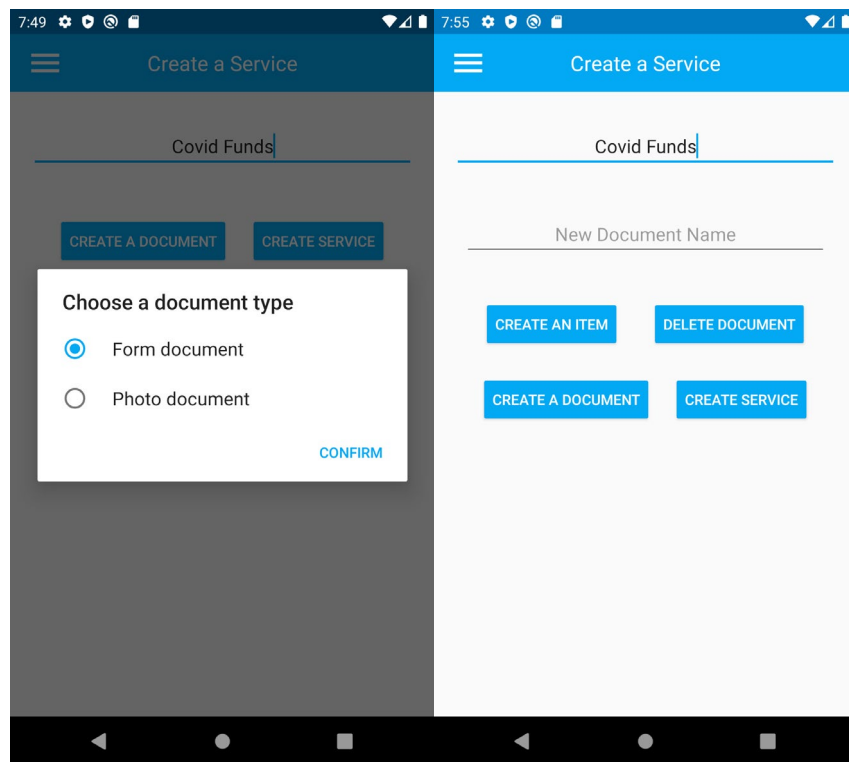*Figure 7 Create a Service Page*

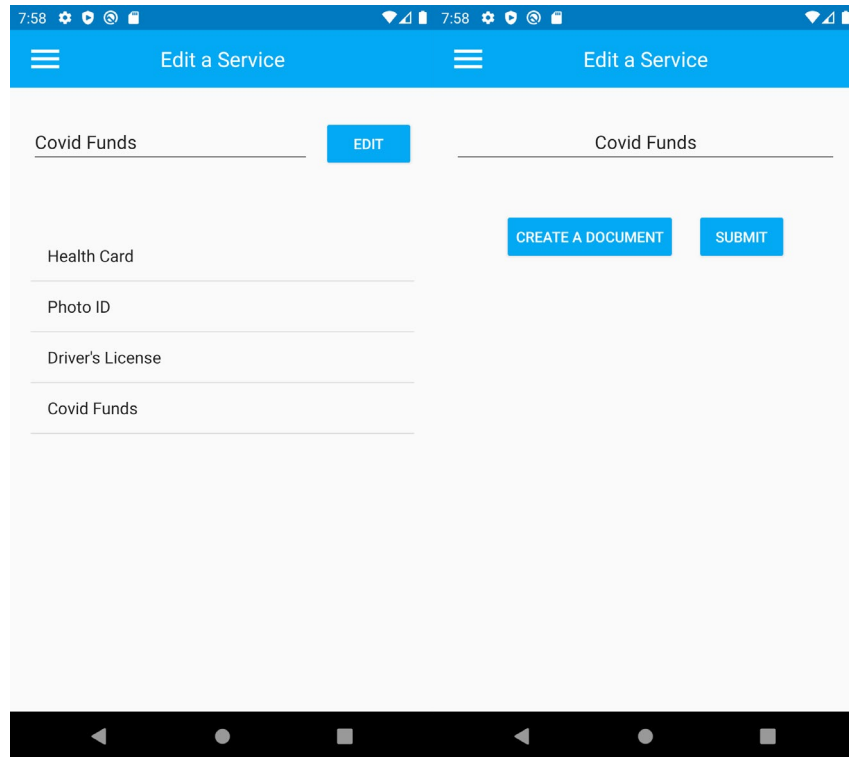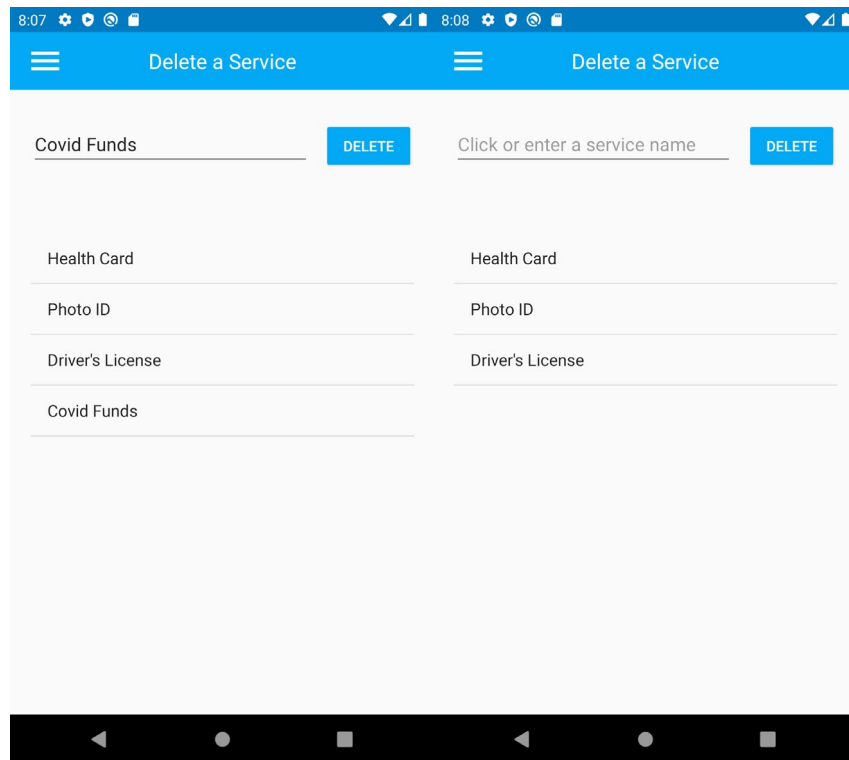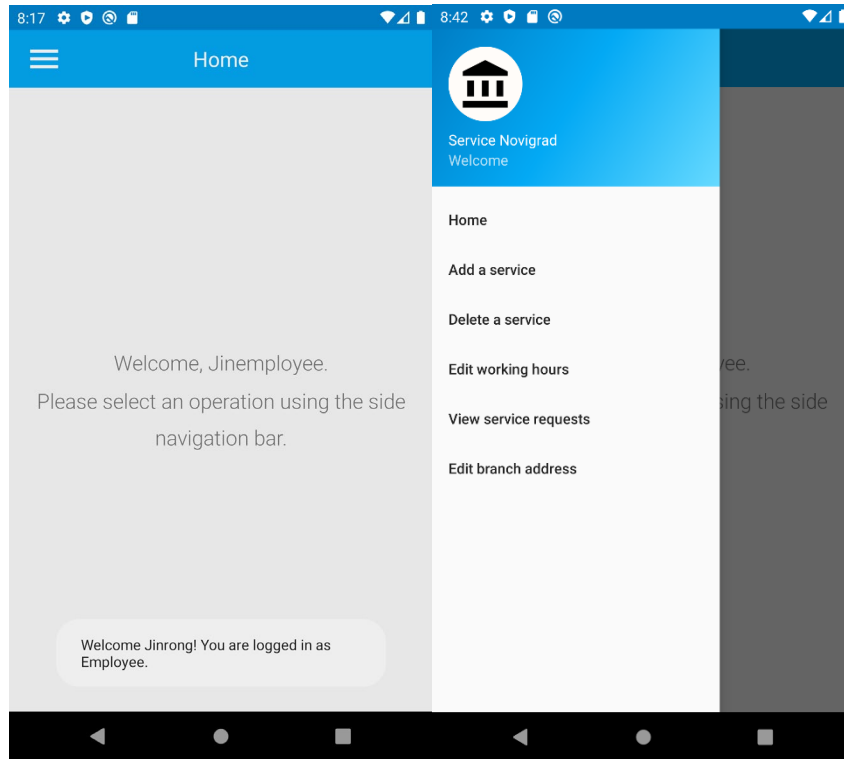
Figure 8 Create a document for the service (Form/Photo)

Figure 9 Edit service page: Similar page with Create a Document to create service

4.3 Logged in as Employee

Figure 10 Home page for employee and navigation bar

By either:

- clicking on the icon that resides the top-left most,
- or swiping right from the left side of the screen edge,

the navigation drawer will show up, which contains the following options for the Employee:

- Create an account
- Add a service
- Delete a service
- Edit working hour
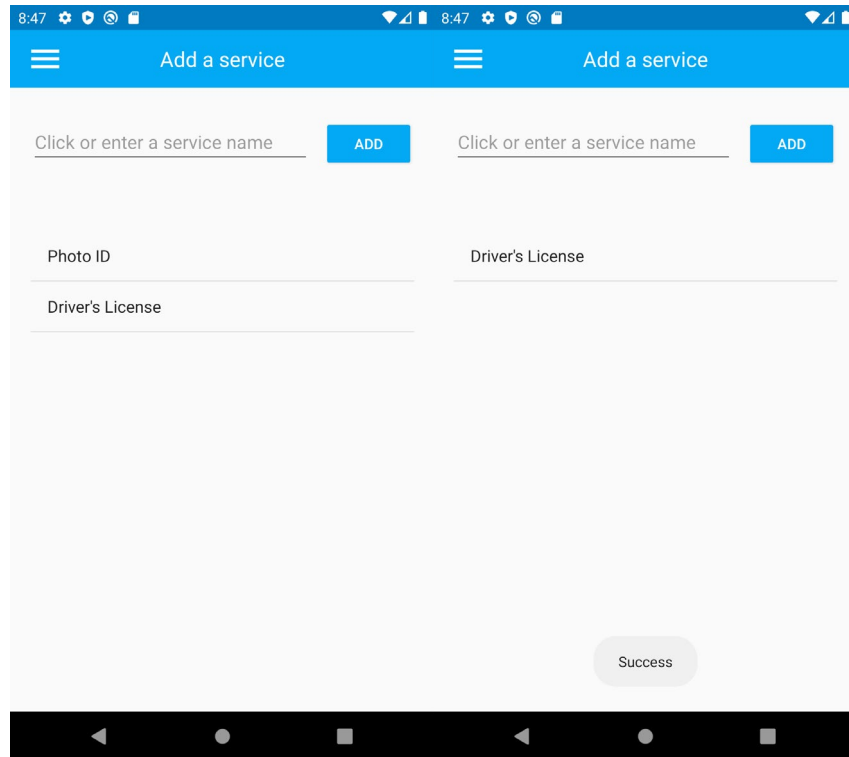- View service requests
- Edit branch address

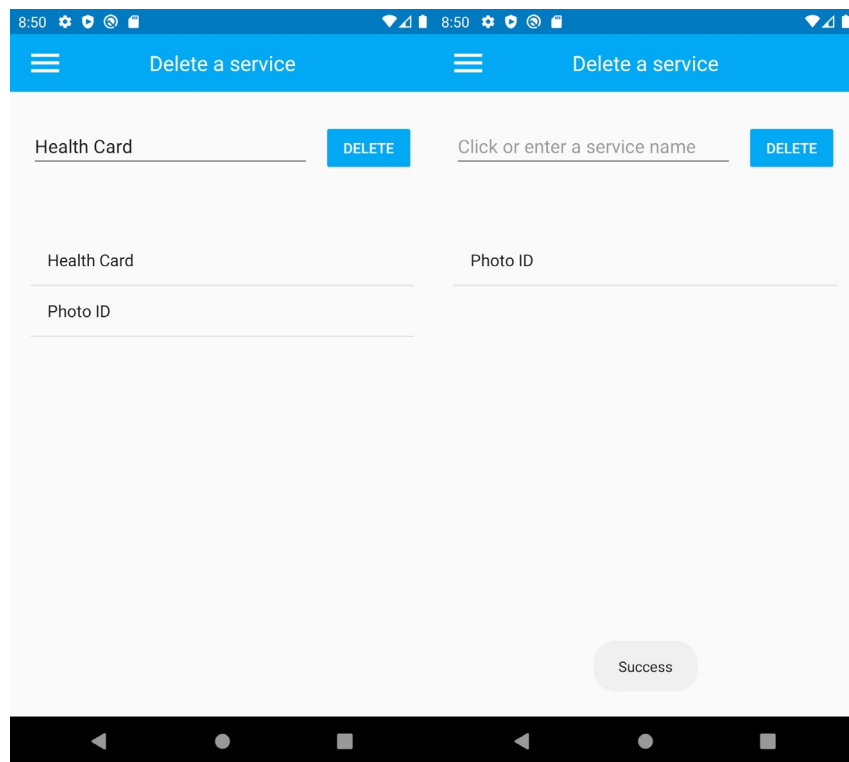*Figure 11 Add a service page for Employee: click on the available service*

Figure 12 Delete a service page for employee

Figure 13 Edit working hours page: select a date on the calendar and start-end time for that day

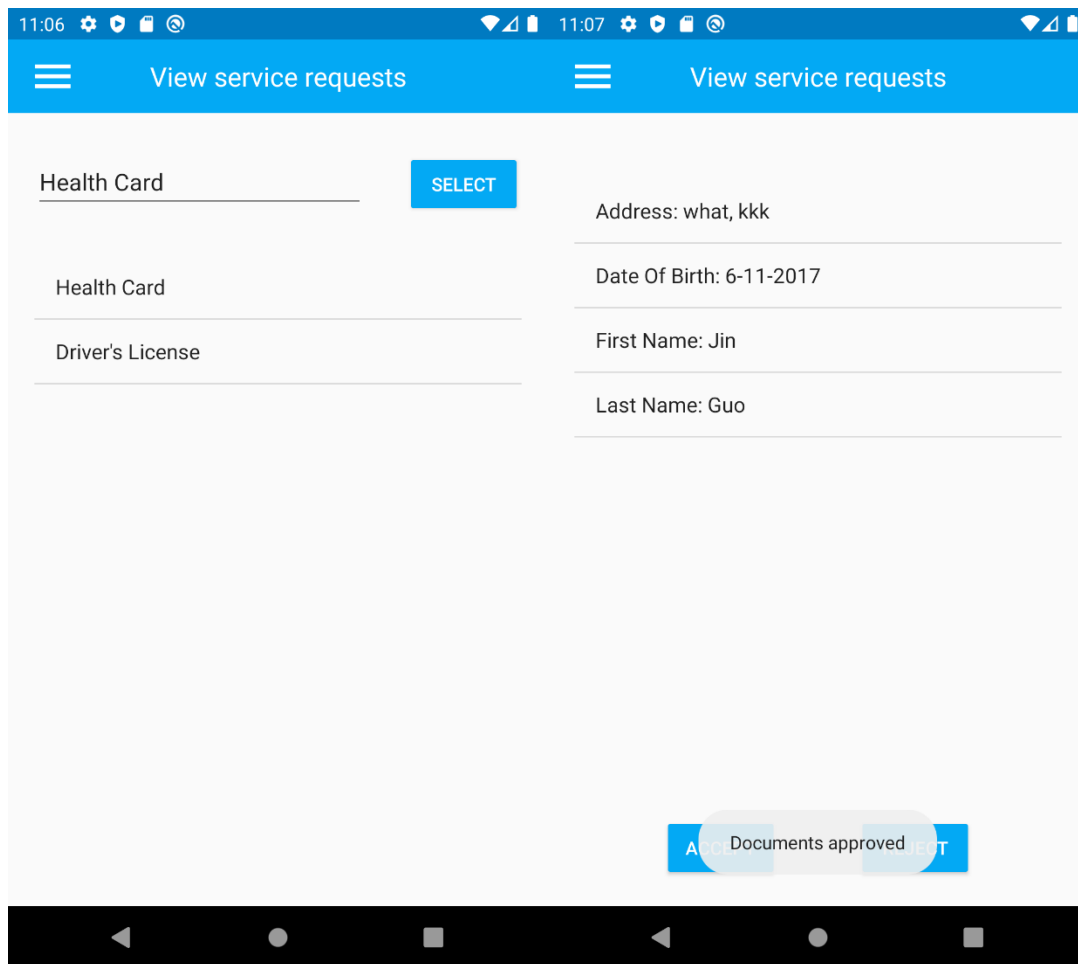*Figure 14 Edit branch address page: input address and click submit*
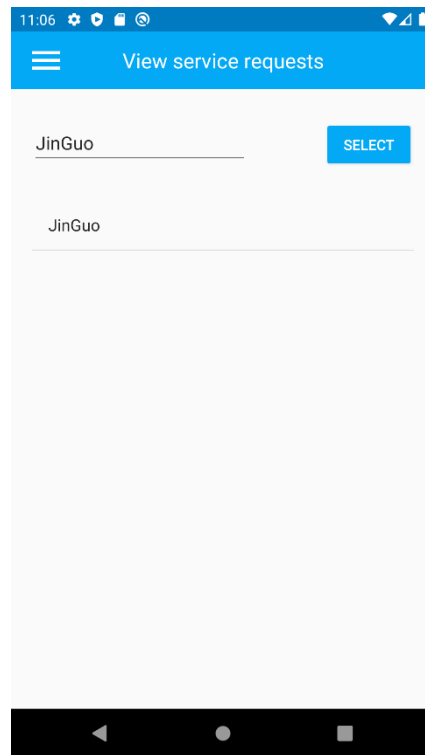
Figure 15 View service request page: select current requests with customer name

Figure 16 Select service that the same customer applied: select and continue, approve/reject page and information displayed(right)
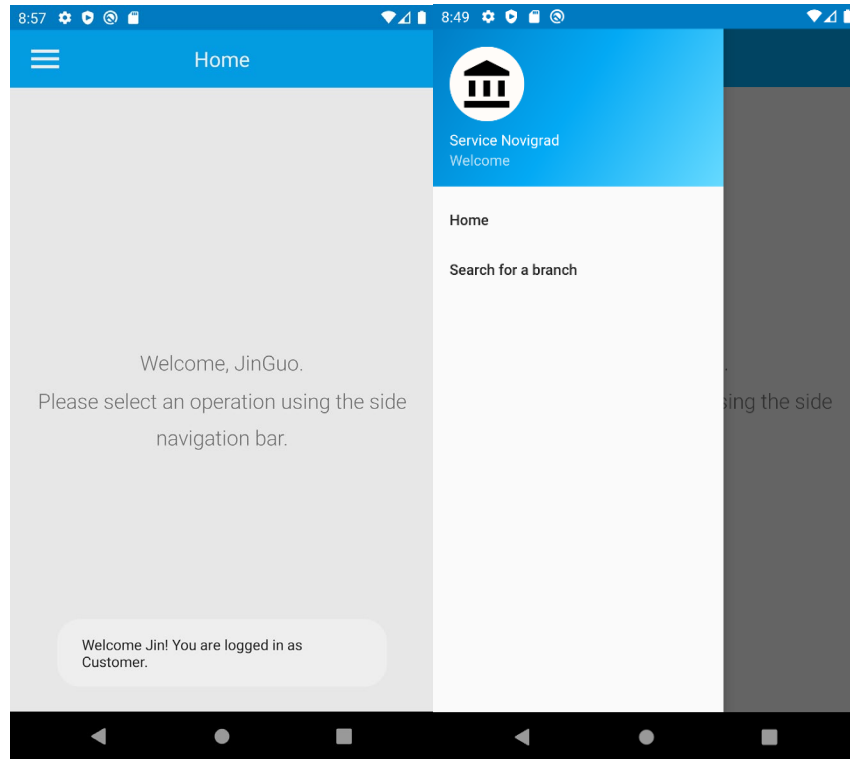
Figure 17 Select service that the same customer applied

4.4 Logged in as Customer

Figure18:Home page for Customer and navigation bar

By either:

- clicking on the icon that resides the top-left most,
- or swiping right from the left side of the screen edge,

the navigation drawer will show up, which contains the following options for the Customer:

- Search for a branch (Select branch – Select Service – Fill the form and upload picture – rate this branch)
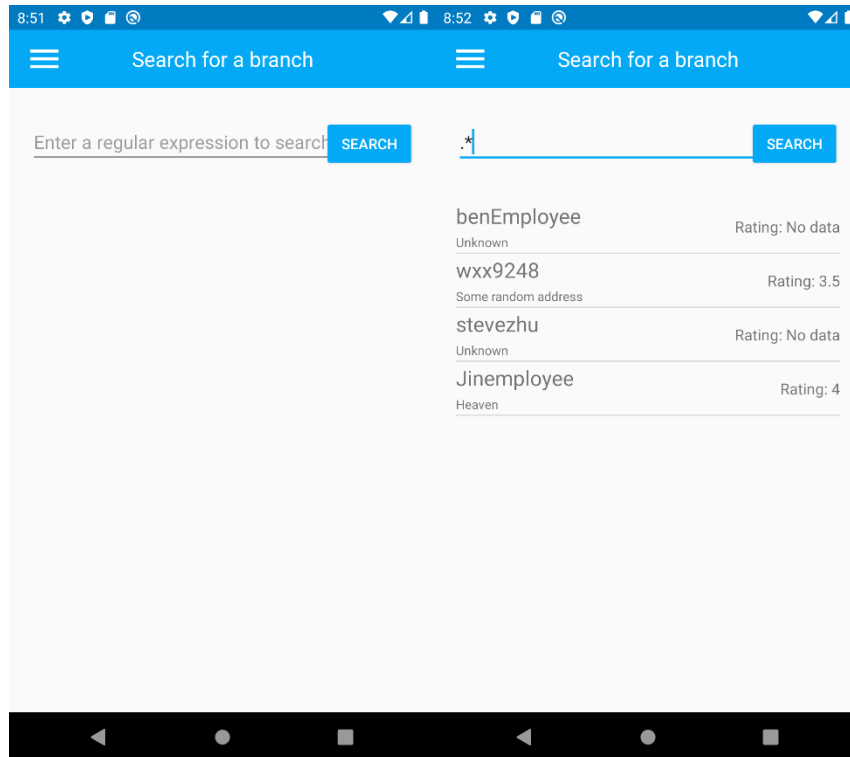
Figure 19: Search for a branch page for customer

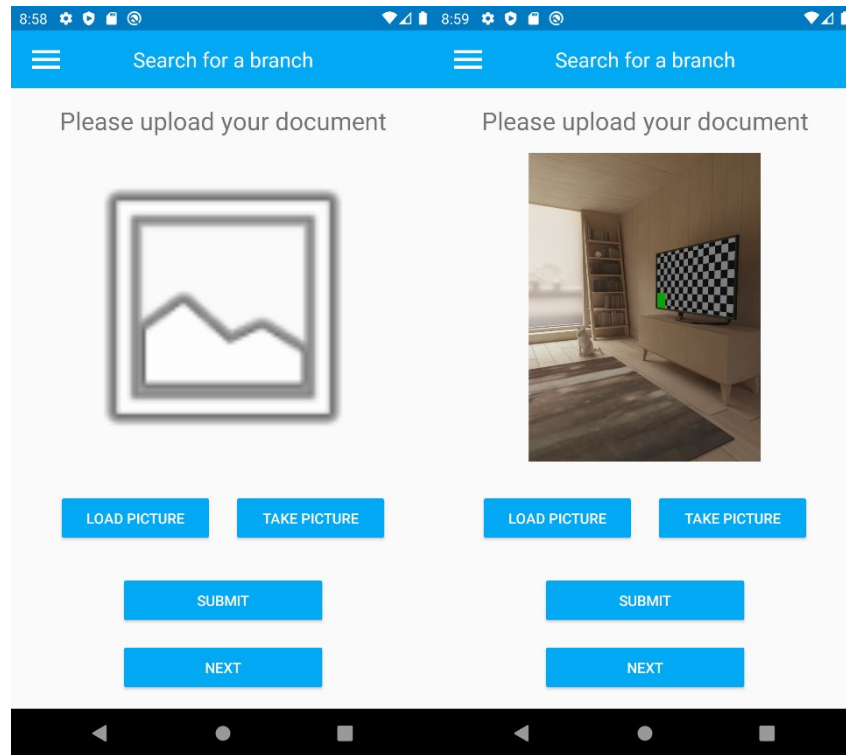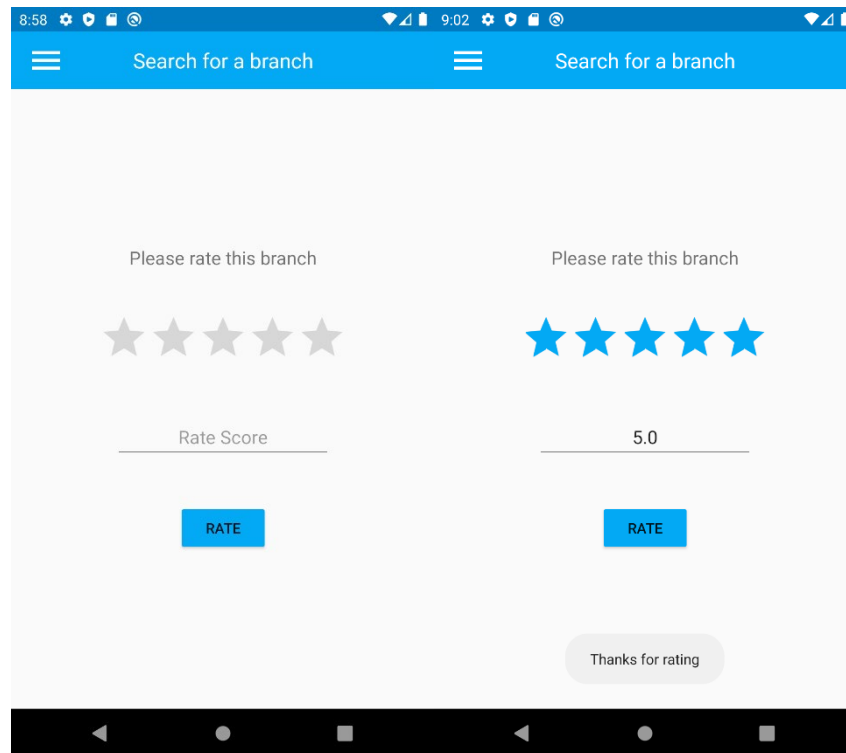*Figure 20: Select a service page and application form page for health card and photo id*

Figure 21: Upload picture page, user can either select picture from gallery or take a picture

Figure 22: Customer Rate this branch page

5. Discussion on Lessons Learned

From this project, we learned how to use and connect the database and CircleCI.

We have experienced all the stages of developing a proper software, including indicating the goal of this software, determining the roles and players involved, developing methods and classes to achieve different functionalities that were required, and finally testing the software to see if desire requirements have been accomplished. As a future programmer, it is critical to understand how a project can be developed from paper to actual software. In the first place, we as students learned a lot of programming knowledge throughout the ongoing submission process of this project and experienced the spirit to work as a team. However, it is very frustrating when bugs occur, and have no idea how to fix them. Fortunately, one of the benefits of working as a team is that other members of the team could see things from a different perspective so that it would be easier for the one working alone.