Kingdom of Saudi Arabia
Ministry of Education
Prince Sattam Bin Abdulaziz University
College of Computer
Engineering and sciences

جامعة الأمير
سطام بن عبدالعزيز
PRINCE SATTAM BIN ABDULAZIZ UNIVERSITY

المملكة العربية السعودية
وزارة التعليم
جامعة الامير سطام بن عبد العزيز
كلية هندسة وعلوم الحاسب

project

Absher application

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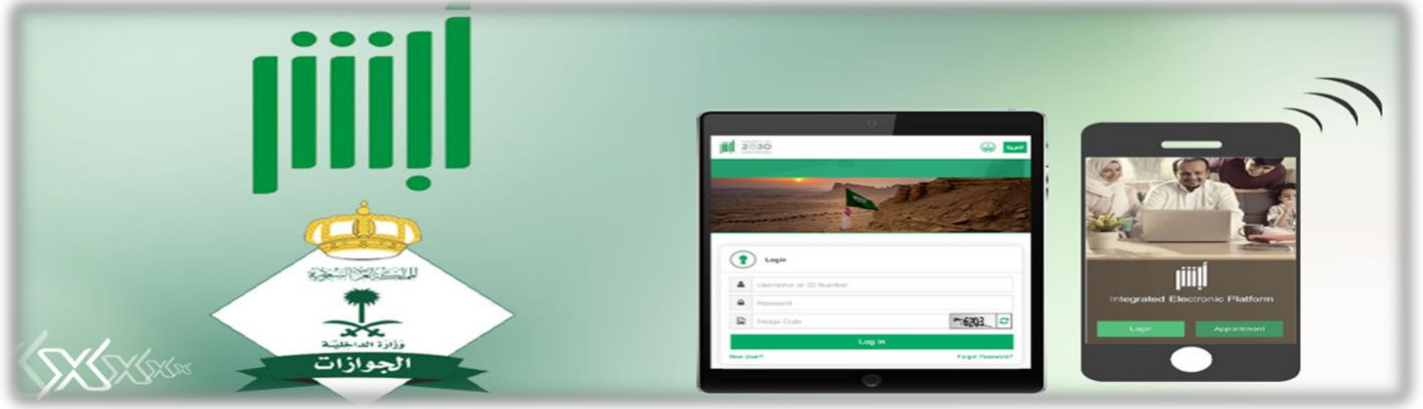
1. Feasibility Study &Project Proposal

Introduction:

In this research, I will talk about the Absher application,
It aims to provide the services of the Saudi Ministry of Interior digitally in an integrated manner to citizens, residents, and visitors by taking advantage of the available services and modern technologies that provide a distinguished user experience through automated services with reliability, security, and high efficiency.

Problems:

The Absher application contributes to solving the problem of manual transactions that take a lot of time and effort and making them electronic through the application, as well as the problem of the unavailability of services in the traditional way throughout the day, resulting in delays and accumulation of the required services.

Background:

Absher is an electronic system launched by the Saudi Ministry of Interior. It connects all government sectors electronically, and the application serves 21 million subscribers and offers more than 200 electronic services.

Proposed solution:

The Absher application provided me with a system in which all services are available and the system is available at all times and allows citizens and residents to access the services and accomplish their things easily, which helps in speeding up transactions and the ability to accomplish them from anywhere. The application also helps in raising the quality of life for citizens, residents, and visitors to the Kingdom and raises the level of government performance in the Ministry of Interior sectors.

Work Plan:

To develop the Absher mobile application, we will follow the following work plan:

1. Project Kickoff Meeting

The Absher application work plan will start with the project kick-off meeting, where team members will be introduced, project objectives defined, the schedule reviewed, and roles and responsibilities discussed.

2.Feasibility Study

A feasibility study will then be conducted, which includes collecting data on existing operations and the needs of citizens and beneficiaries, evaluating the technical feasibility of developing a mobile application, and determining the economic feasibility of the project by anticipating costs and profit.

3.Project Proposal

Next, a project proposal will be developed, defining the scope, plan, risks, budget, and success criteria for the project. This includes creating a project plan with schedules, milestones, and deliverables; identifying risks and mitigation strategies; determining resource needs and budget; and setting standards and measures of success.

4. Feasibility Study and Project Proposal Report

A report will be generated compiling the results of the feasibility study and project proposal. This report will be submitted to stakeholders and sponsors for review and approval.

5. Finalize the Project Plan

The project plan will be finalized by taking into account the feedback received from stakeholders and the project sponsor. This will include defining roles and responsibilities for the project team, establishing communication and reporting protocols, as well as quality assurance and testing protocols.

6.Project Kickoff

The project will start from scratch, where tasks such as developing a mobile application, designing a database, setting up a GPS tracking system, and creating a personal data protection system will be carried out.
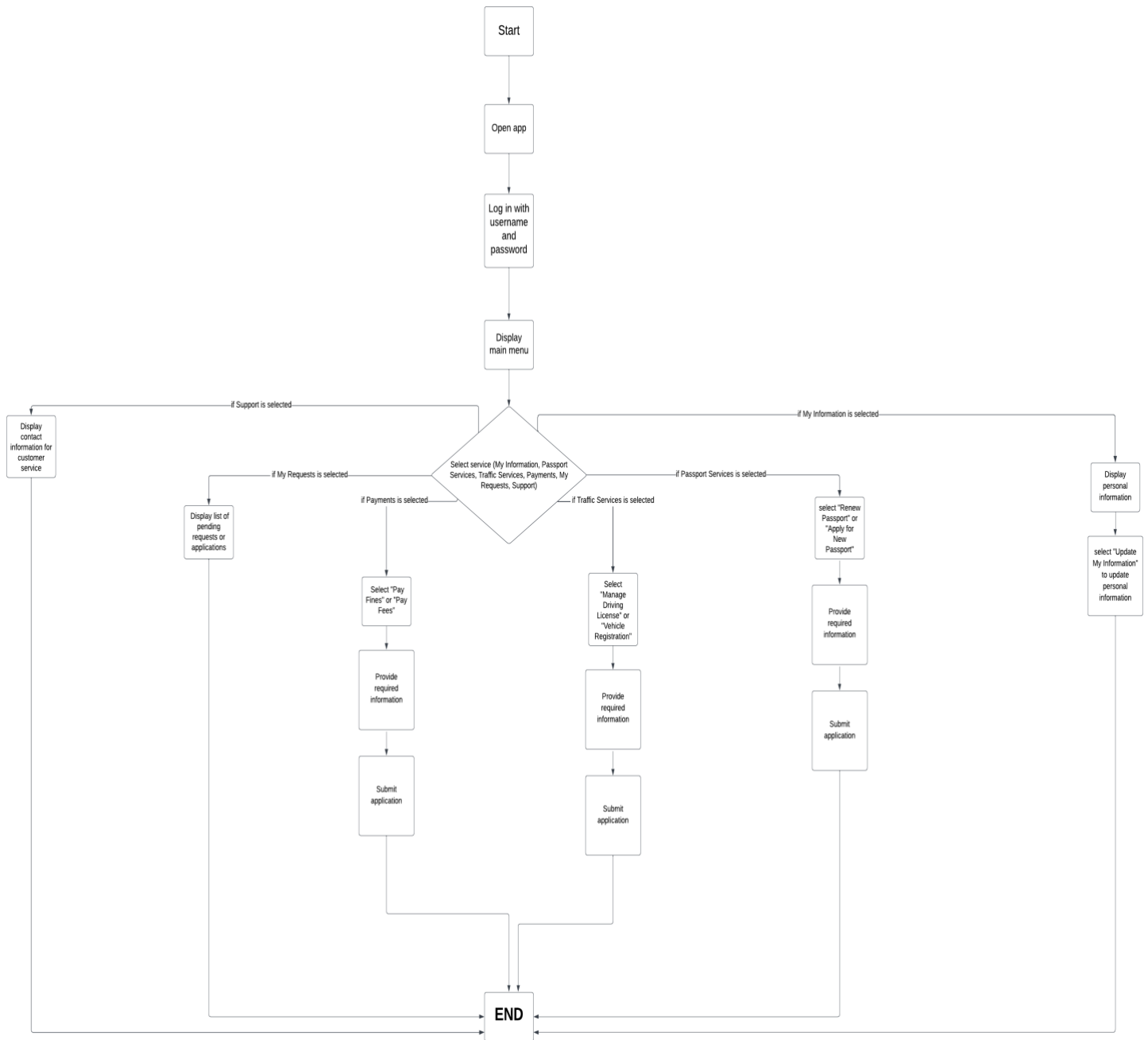
2: Project requirements

(Functional requirements)

- **User Registration:** The application should allow users to register and create an account with their personal information such as name, phone number, email address, and ID .

- **Dashboard:** The application should have a user-friendly dashboard that displays all the available services provided by Absher.

- **Appointment Booking:** The application should allow users to book appointments for various government services such as passport renewal, visa issuance, driving license renewal, etc.

- **Payment Gateway Integration:** The application should have a secure payment gateway integration to facilitate online payments for the services rendered.

- **Document Management:** The application should allow users to upload and manage their personal documents such as ID cards, passports, driving licenses, etc., in a secure manner.

- **Notification System:** The application should have a notification system that sends alerts to users regarding their appointments, or any updates related to their requested services.

- **Feedback System:** The application should have a feedback system that allows users to rate the quality of service they received and provide suggestions for improvement.

- **Security Measures:** The application should implement robust security measures such as two-factor authentication, encryption of user data, and regular security audits to ensure the safety of user information and prevent any unauthorized access or cyber-attacks.

(Non Functional requirements)

- **Security:** Absher application should have a high level of security to protect users' personal information and prevent unauthorized access.

- **Performance:** The application should be able to handle many users and transactions without slowing down or crashing.

- **Accessibility:** The application should be accessible to all users, including those with disabilities, and should comply with accessibility standards.

- **Usability:** The application should be user-friendly and easy to navigate, with clear instructions and intuitive design.

3: Activity diagram

```
                                    ┌─────────┐
                                    │  Start  │
                                    └────┬────┘
                                         │
                                    ┌────┴────┐
                                    │ Open app│
                                    └────┬────┘
                                         │
                                 ┌───────┴───────┐
                                 │ Log in with   │
                                 │ username and  │
                                 │ password      │
                                 └───────┬───────┘
                                         │
                                   ┌─────┴─────┐
                                   │  Display  │
                                   │ main menu │
                                   └─────┬─────┘
```

if Support is selected

if My Information is selected

Display contact information for customer service

Select service (My Information, Passport Services, Traffic Services, Payments, My Requests, Support)

if My Requests is selected

if Passport Services is selected

Display personal information

if Payments is selected

if Traffic Services is selected

select "Renew Passport" or "Apply for New Passport"

Display list of pending requests or applications

select "Update My Information" to update personal information

Select "Pay Fines" or "Pay Fees"

Select "Manage Driving License" or "Vehicle Registration"

Provide required information

Provide required information

Provide required information

Submit application

Submit application

Submit application

Submit application

END

4: Project Use Case Modelling

Actors:

- Citizens of Saudi Arabia
- Business owners
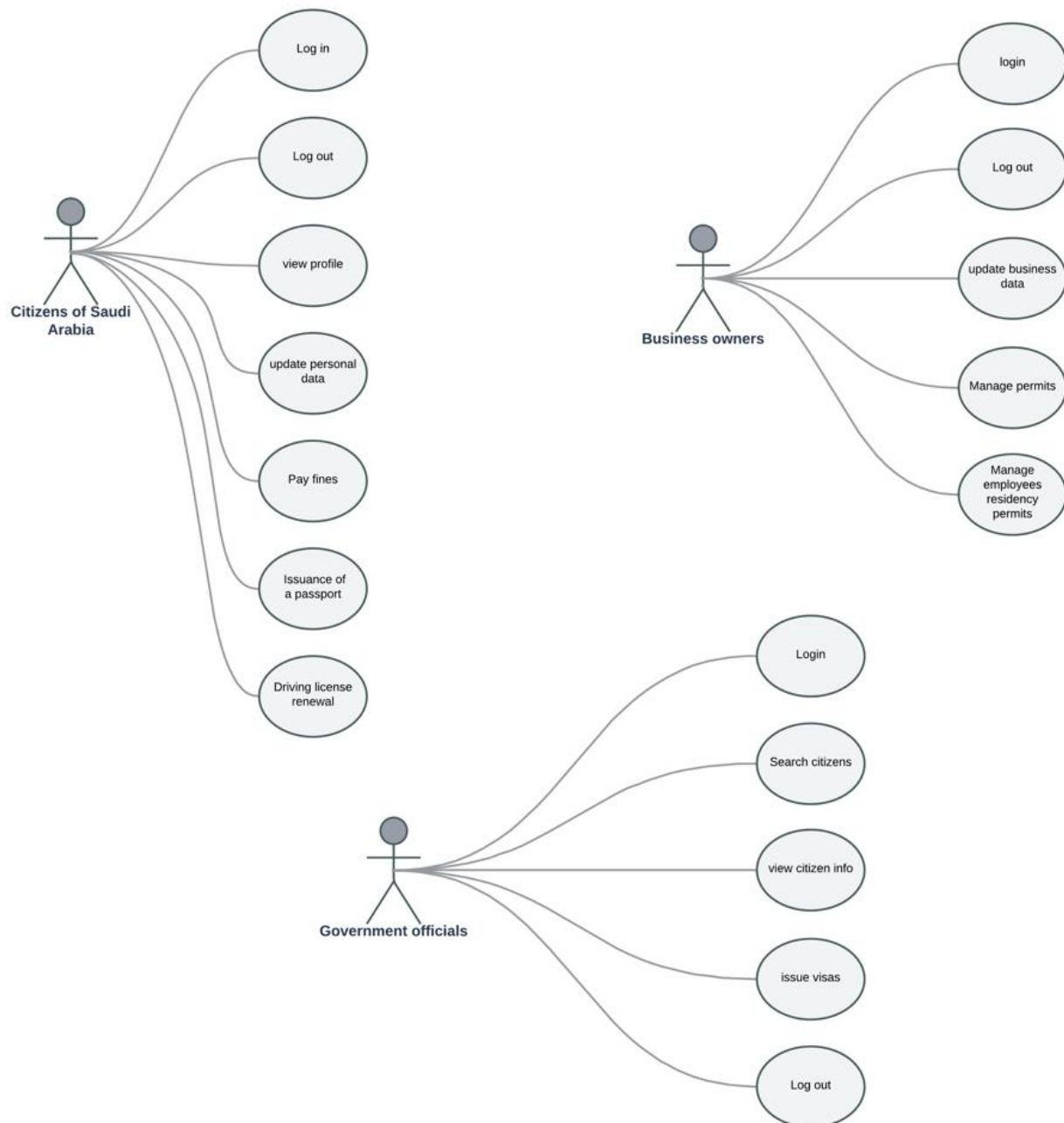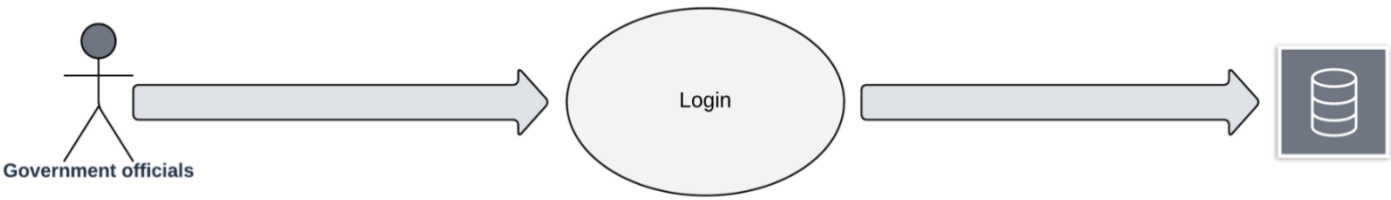- Government officials

Use cases &its related use cases:

Table 1:

Update personal data	
Actors	Saudi Arabia Citizens, System
Description	When the user opens the Absher application on his device He logs in using his username and password and searches for the "My Profile" or "Account Settings" section, then clicks on the option to modify or update personal data, after which personal information such as name, address, phone number, email address, etc. is updated and then saved Changes made by clicking the "Save" or "Update" button.
Data	User personal information.
Stimulus	The user modifies his information in the spaces provided and then says by pressing the Save button.
Response	Confirm that the personal information has been updated or that an error has appeared due to the data not being modified correctly.

Table 2:

Log in	
Actors	Government official, System
Description	After the application is opened by users and selecting on "Login", the username and password of Absher is entered. click on "Login" to access your account.
Data	The username and password assigned to each user.
Stimulus	The user fills in the field designated for the username and password, then presses the login button.
Response	Admin page is displayed upon acceptance, or rejection if the information entered is wrong.

5: Sequence Diagrams

Sequence Diagrams for login to application Absher:
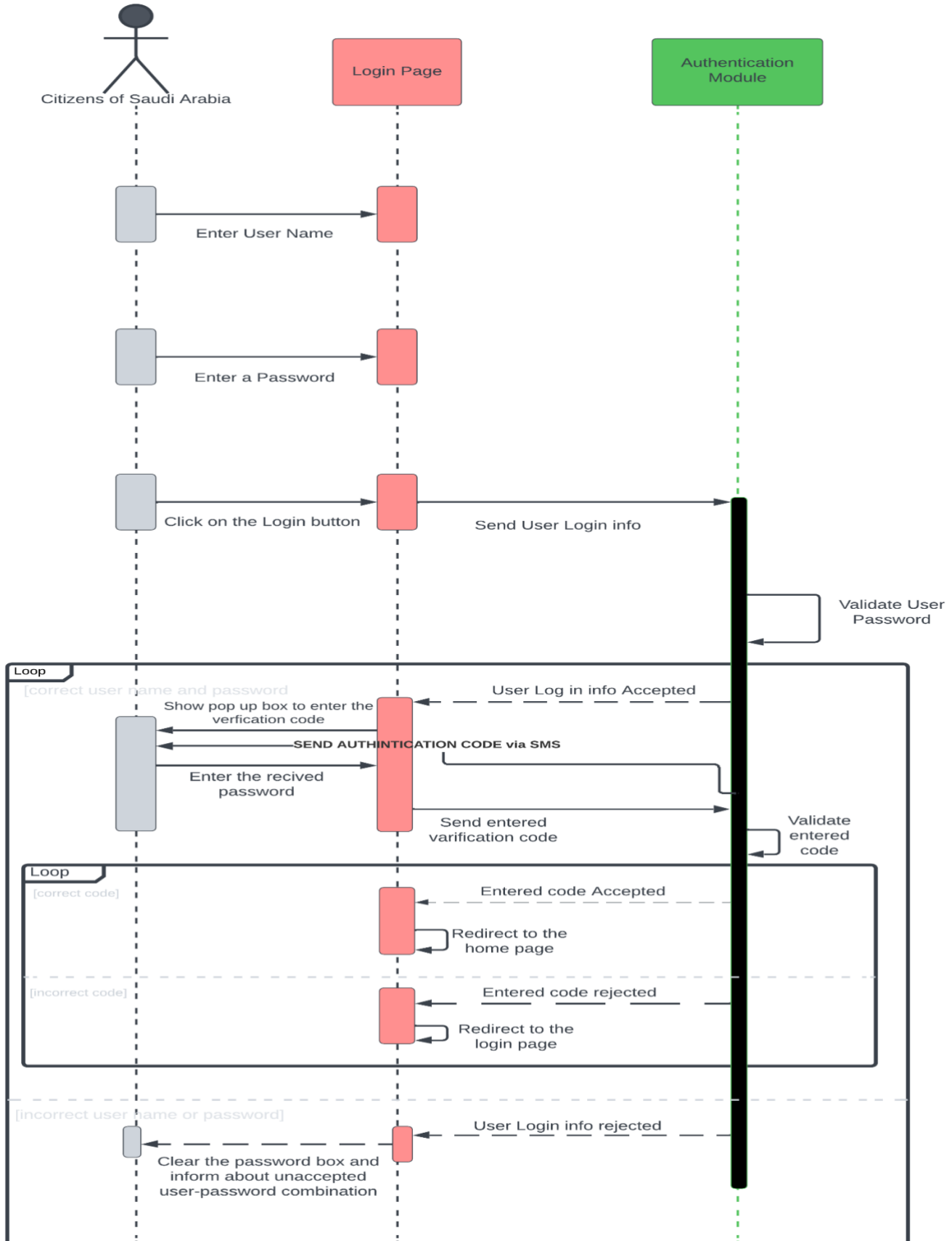
6: Class Diagrams

Absher Class Diagram

Categories
Attributes: name, description

Operations: view services under the category

1..*

has

1

Services
Attributes: name, description, availability

Operations: view details, request service

Notifications
Attributes: message content, date/time sent

Operations: view notifications list, mark as read/unread/delete notification(s)

1..*
Has
1..*

User
Attributes: name, email, phone number, gender, nationality

Operations: register, login, edit profile information

1..* **Requests** 1..*

Requests
Attributes: service requested, date/time requested, status (pending/accepted/rejected)

Operations: view requests list/details/status updates/cancel request(s)

1..*

have

1..*

1..*

has

1..*

1

1..*

Provide

1..*

1..*

have

1..*

has

1

Service Providers
Attributes: name, company name (if applicable), email address, phone number

Operations: register as a service provider

Payment
Attributes : payment method , amount , payment status

Operations : make payment , view payment history

Security Features
Attributes : login credentials , two factor authentication , password reset

Operations : secure login process for users