A Major Project Mid-Term Report on

Online service platform:Sahaj

Submitted in partial Fulfillment of the Requirements for

The Degree of B.E in Information Technology

Under Pokhara University

Submitted By:

Prabin Bhattarai, Roll No: 171428

Raman Neupane, Roll No: 171430

Manish Gaire, Roll No: 171422

Under the supervision of

Er.Madan Kadariya

Date:

03 August 2022

Nepal College of Information Technology

Affiliated to Pokhara University

ABSTRACT

The purpose of our project is to provide the customers easy way of getting the home services through home i.e. service from a single tap. Today in digital world which makes users easy to get services online on single click. This online platform serves both the service receiver and service provider by establishing effective communication. Our platform providing two way communication between service provider and service receiver can eliminate exhausting efforts of searching the suitable service provider and also ensures the intended job for the service provider. A feedback based rating system can improve the skills of any service provider and service receiver can eventually get better service.

Keywords: - Home Services, Service Provider, Online platform.

LIST OF FIGURES

TABLE OF CONTENT

Contents

1. INTRODUCTION

When someone need aid with small but major household tasks, the trouble arises when service skilled persons are unavailable or the trusted providers are impossible to find, who delivers consistently flawless service on instance. Our online platform for household services provides the most expedient and annoys free way to get your domestic work done. We aim to help in providing optimal solutions to all your household troubles with more efficiency, ease and majorly, a delicate touch. A single click system describes booking highly skilled in-house professionals and gets your service done on time. Customers' overall willingness to pay is significantly and positively correlated with the expectation that fee-based services would be better, and with the belief that "pay for what you get" is the right thing to do. Keeping that in sense our platform is basically a marketplace for household services and it is the platform where the rates are standardized and there is no necessitate haggling over prices. Several aspects like plumbing, electrical works and painting services are involved in a system to provide happy and healthy home atmosphere in order to satisfy consumers. The primary objective of the online platform for household services is about delivering the home services at the door step just by one click. This project discusses about main theme of the online home services, numerous services provided and how the ordering and delivery of services takes place. Online system for household services can be used by any authorized user intending to seek for household services through web based system. To provide an authenticated and authorized login module for the users such as service seekers, service providers and the admin, by providing appropriate credentials at the time of registration. To develop a web based online system for opting household services.

1.1. PROBLEM STATEMENT

As we are all busy doing our regular work and we all have no time to search for the relevant worker for our household problem. It's not easy to find the best and relevant skilled and experienced service provider where we are located, that's why we have to be concerned with third- party which is more time consuming and have to afford more charges than normal. There are already many ways and platforms to pay from anywhere for household expenses but there is lack of platform to hire skilled service providers to maintain relevant problems.

1.2. PROJECT OBJECTIVES

This project aims at developing a "Sahaj" is: -

- To help Skilled and experienced as well as freelancer by providing the platform to connect with users looking for specific services.

- To provide a platform to all users who are looking for skilled and experienced service providers for their relevant work.

- To provide a platform that connects the user with service providers and facility to appoint & book.

1.3. SCOPE AND LIMITATIONS

1.3.1. SCOPES

The overall scope of the project is as follows: -

- Simple and easy to use and search for relevant services.
- Have a function for appointing & book service providers.
- To provide a safe and user-friendly environment for onlineservice booking.

1.3.2. LIMITATIONS

The overall limitations of the project is as follows: -

- No guaranteed service.
- Not proper security.

1.4. SIGNIFICANCE OF THE PROJECT

The findings of this study will greatly contribute to the benefit of society as the study contribute for creating a digital society by solving problem in digital way. Peopleneed a smart way to do thing nowadays. There is high chance of fraud and presence ofthird party for acquiring the service. So, as to minimize this kind of misunderstanding our project aims to provide platform to perform direct communication between the service receiver and the service provider. As humans are able to analyze the behavior of the person, we came up with review system with sentimental analysis that helps to find out the right person with the right mentality and good behavior.

2. LITERATURE REVIEW

We have observed so many problems which occur in our daily routine, for example the problem of electricity, if the electricity goes there are many problems that occur in our work, like we cannot charge the phones, batteries etc. the electric devices which are used in the kitchen cannot work.

Existing Systems

2.1. Urban Company:

Urban Company is Asia's Largest online home services platform lunched in 2014, today operates in India, Australia, Singapore, the USA, the UAE and Kingdom of Saudi Arabia. The platform helps customer book reliable & high-quality services- beauty treatments, massages, haircuts, home cleaning, handymen, appliance repair, painting, pest control and more- delivered by trained professionals conveniently at home. Urban Company's vision is to empower millions of professionals worldwide to deliver services at home like never experienced before.

2.2. Bookgara:

BookGara is a community-based platform which connects people to solve any kind of problem, be it complex or simple. BookGara is where regular people like us can find services, products or news/events all in one place. It is an all-in-one portal where you can get information for the ingredients of your favorite cake, purchase the ingredients, get it delivered to you and then baked by a chef of your choosing.

2.3. Just Dial:

Just Dial Limited is India's No. 1 Local Search engine that provides local search related services to users across India through multiple platforms such as website, mobile website, Apps (Android, iOS), over the telephone

(voice, pan India number 8888888888) and text (SMS). Justdial has also initiated ‘Search Plus's services for its users. These services aim at making several day-to-day tasks conveniently actionable and accessible to users through one App.

3. METHODOLOGY

We have planned to work according to these methodologies of applying knowledge, skills, tools, and techniques for a wide range of activities to meet the needs of our project Semantic Analysis. This section contains detailed information about the software development process, project approach, and the tool we used for our project.

3.1. SOFTWARE DEVELOPMENT LIFECYCLE

The framework that we planned to incorporate for developing this project is the Incremental model. This model combines a linear sequential model with the iterative prototype model. New functionalities will be added as each increment is developed. The phases of the linear sequential model are Analysis, Design, Coding, and Testing. The software repeatedly passes through these phases in iteration and an increment is delivered with progressive changes.

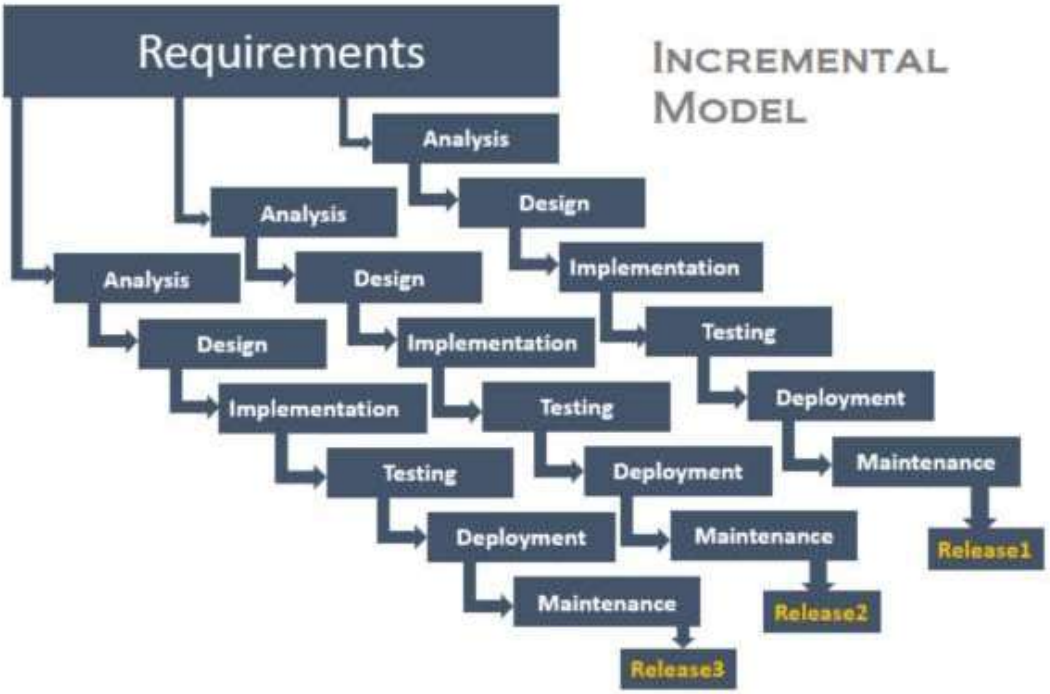


Figure 1 Incremental Model

3.1.1. ANALYSIS PHASE

In this phase, analysis was performed in order to find out the requirements of the system. The outcome of this phase would be an SRS which is an acronym for "SystemRequirement Specifications".

3.1.2. DESIGN PHASE

In this phase the SRS would be translated into the system's design. Context Diagram, DFD, ER – Diagram, Use Case Diagram, and Class Diagram will be developed.

3.1.3. CODING PHASE

In this phase, coding would be done according to the design, and a working system is achieved/developed by the end of this process.

3.1.4. TESTING PHASE

In this phase, the system would be tested. With each testing, a list of changes to the system developed is suggested and the changes will be applied to the software and the software would be delivered as a successive increment until a satisfying system is achieved.

3.1.5. MANAGING INCREMENTS

Each stage of the incremental model adds some functionality to the product and passes it on to the next stage. The first increment (generally known as a core product) was used for a detailed evaluation. This process resulted in the creation of a plan for the next increment. The iteration process, which includes the delivery of the increments to the user, continues until the software is completely developed, i.e. iteratively enhances the requirements until the final software is implemented. Our project which implements the Incremental Model comprises three increments which are discussed below:

INCREMENT I

Here, we will build a complete skeleton of our project using the flutter framework on which we will add functionality in another iteration. We

will have a project discussion with team members and take guidance from the supervisors on whether to keep the design as it is or to Improvise. Then we will make the required changes and move to the next iterations of our project.

INCREMENT II: Semantic Analysis Development

In this increment, when the users are asked to access the permission of the messaging app, the users will be provided with a list of different service providers like banks and wallets. And after they grant access the semantic analysis will be performed where the keywords like "debited" and "credited " are extracted and the relative amount will be stored in the database.

INCREMENT III: System Deployment

In this increment, we will get the UI ready along with the user's income and expenses. Areport of saving and expenditures will also be generated.

3.2. PROS OF INCREMENTAL MODEL

- More flexible – less costly to change scope and requirements.
- Easier to test and debug during a smaller iteration.
- Easier to manage risk because risky pieces are identified and handled during its iteration.
- Each iteration is an easily managed milestone.

- Handling functionality during iteration process

3.3. WHY DID WE CHOOSE THE INCREMENTAL MODEL?

- The requirements of the complete system were clearly defined and understood**.**
- Major requirements were defined (however, some details could evolve with time)

4. SYSTEM DESIGN AND ARCHITECTURE

An activity diagram visually presents a series of actions or flow of control in a system similarto a flowchart or a data flow diagram. Activity diagrams are often used in business process modeling. They can also describe the steps in a use case diagram. Activities modeled can be sequential and concurrent.

4.1. USE CASE DIAGRAM

It is a diagram that describes the sequence of events of an actor using a system to complete the process. The essence is discovering and recording functional requirements by writing stories of using a system to help fulfill various stakeholder needs. The use case is a narrative description of domain processes. A use case diagram shows a set of use cases and actors and their relationships. The Use case diagrams are especially useful in organizing and modeling the behaviors of a system and describe what a system does from the standpoint of an external observer.

4.1.1. ADMIN

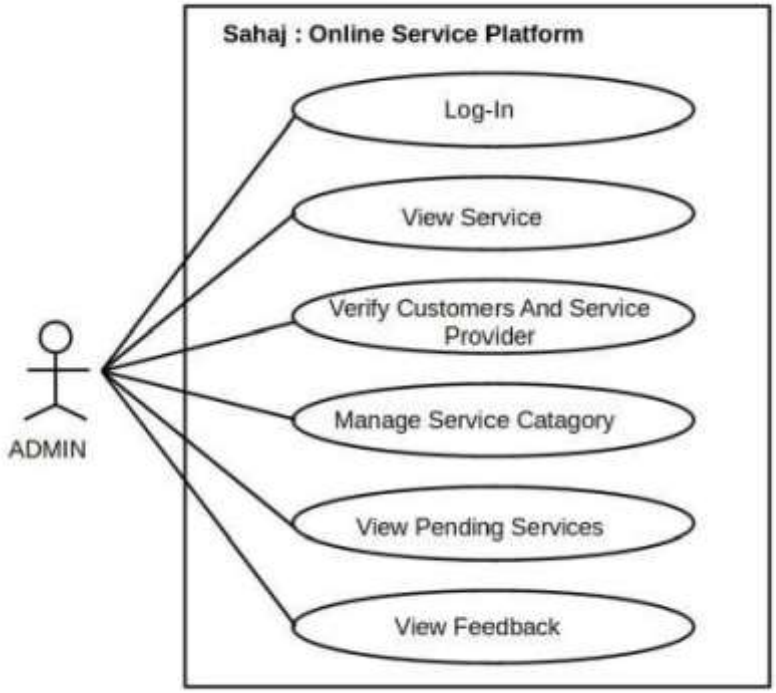


Figure 2: Use-Case Diagram for Admin

4.1.2. SERVICE PROVIDER

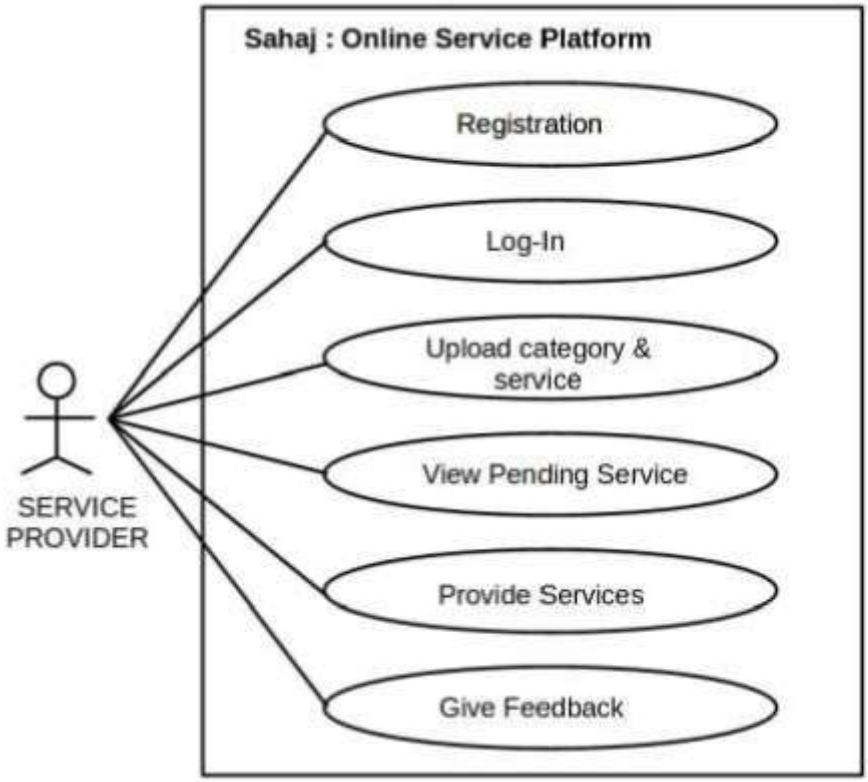


Figure 3: Use-Case Diagram for Service Provider

4.1.3. CUSTOMER

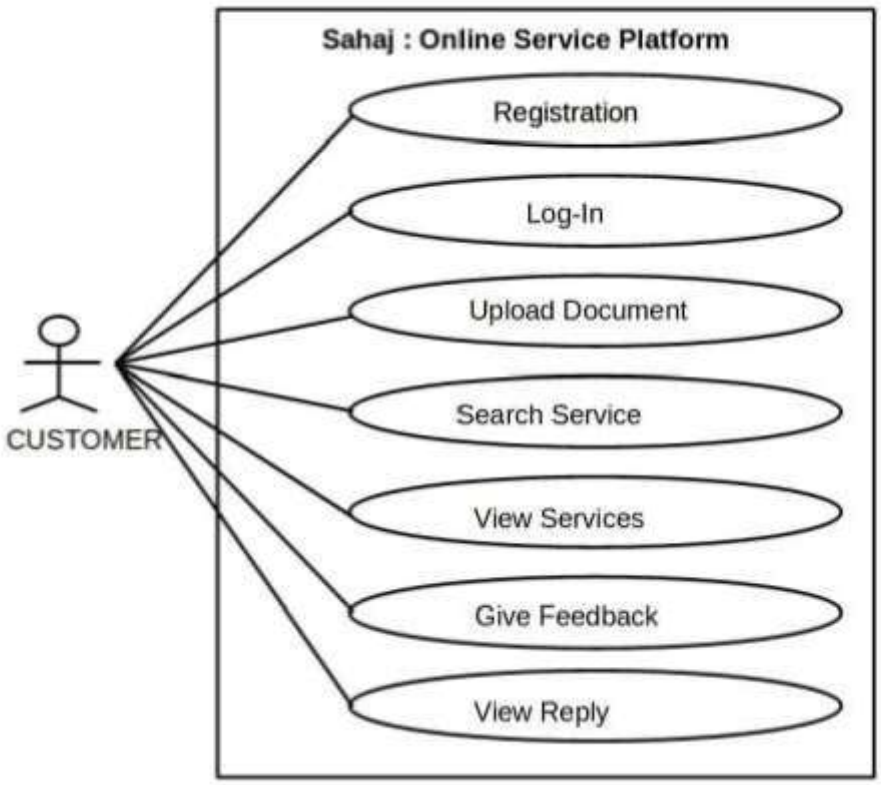


Figure 4: Use-Case Diagram for Customer

4.2. SYSTEM ARCHITECTURE

Firstly, we validate the user using the login credentials and then we request server for fetch the refined service and service provider overall details using semantic analysis. After that, thefinal fetched details are provided to the users.

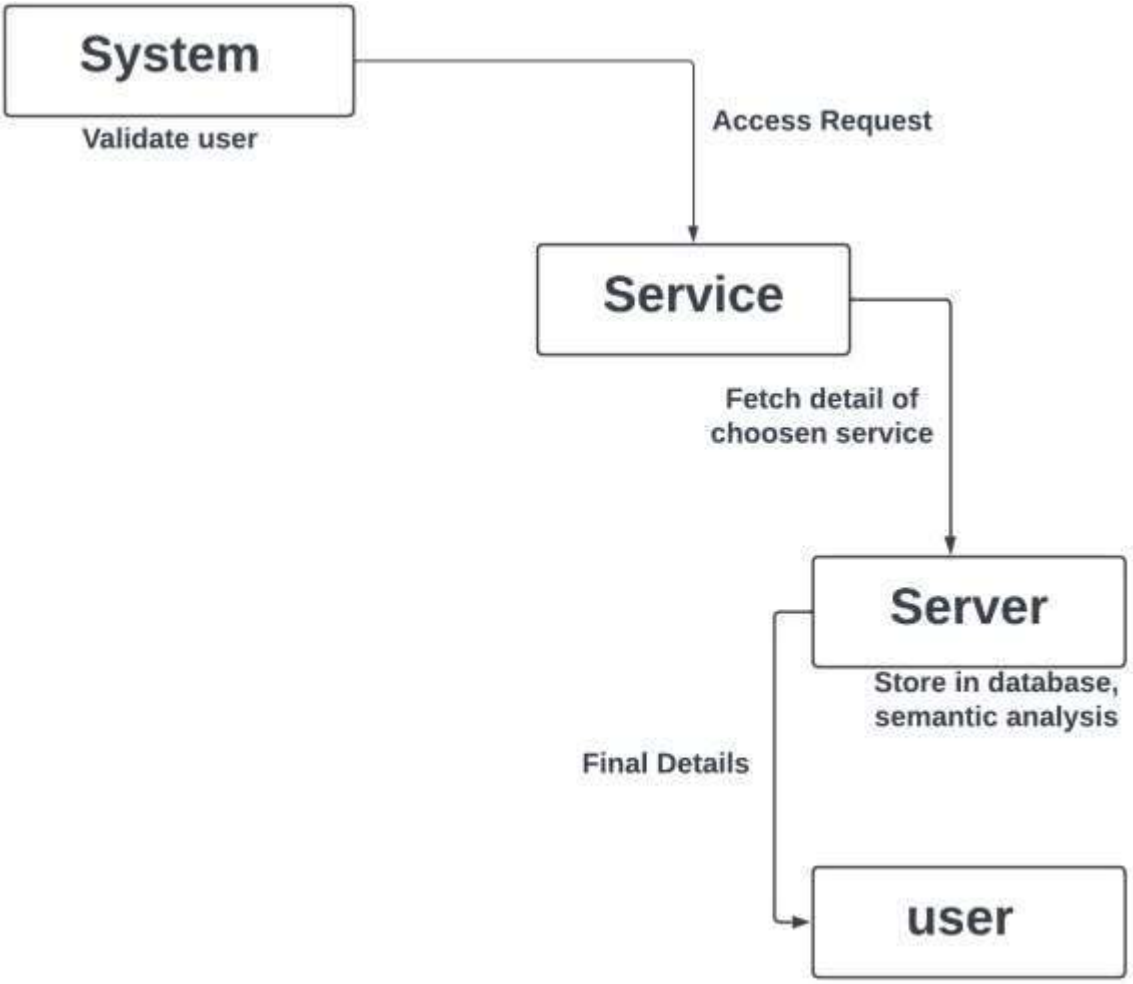


Figure 5: System Architecture

4.3. DATA MODELING

4.3.1. E-R DIAGRAM

An entity-relationship diagram (ERD) is a graphical representation of an information system that shows the relationship between people, objects, places, concepts or events within that system. An ERD is a data modeling technique that can help define business processes and can be used as the foundation for a relation database.

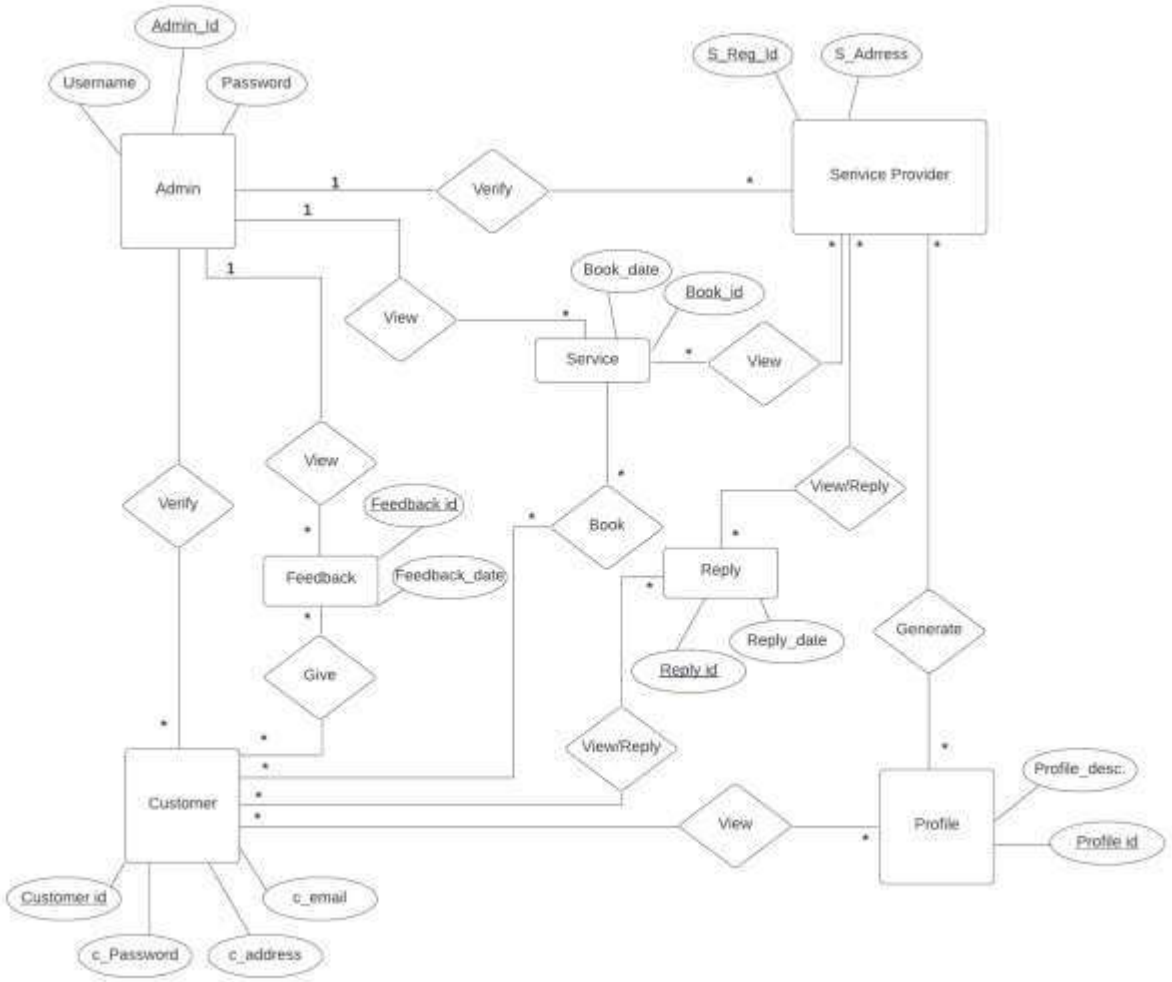


Figure 6: E-R Diagram

4.3.2. ACTIVITY DIAGRAM

Activity diagram describes the flow of control in a system. So it consists of activities and links. The flow can be sequential, concurrent or branched. Activities are nothing but the functions of a system. Numbers of activity diagrams are prepared to capture the entire flow in a system. Activity diagrams are used to visualize the flow of controls in a system. This is prepared to have an idea of how the system will work when executed.

4.3.2.1. LOGIN & REGISTRATION

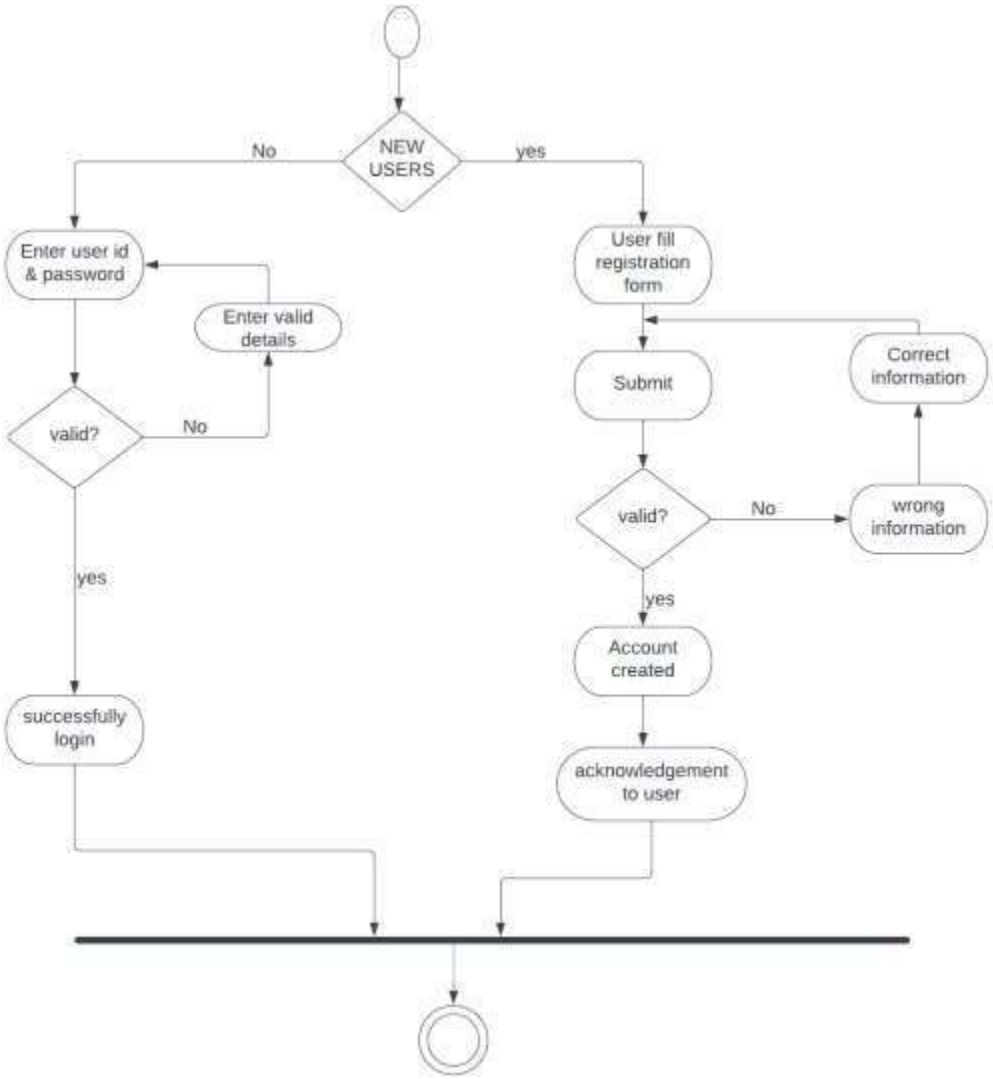


Figure 7 :Activity Diagram For Login & Registration

4.3.2.2. ADMIN

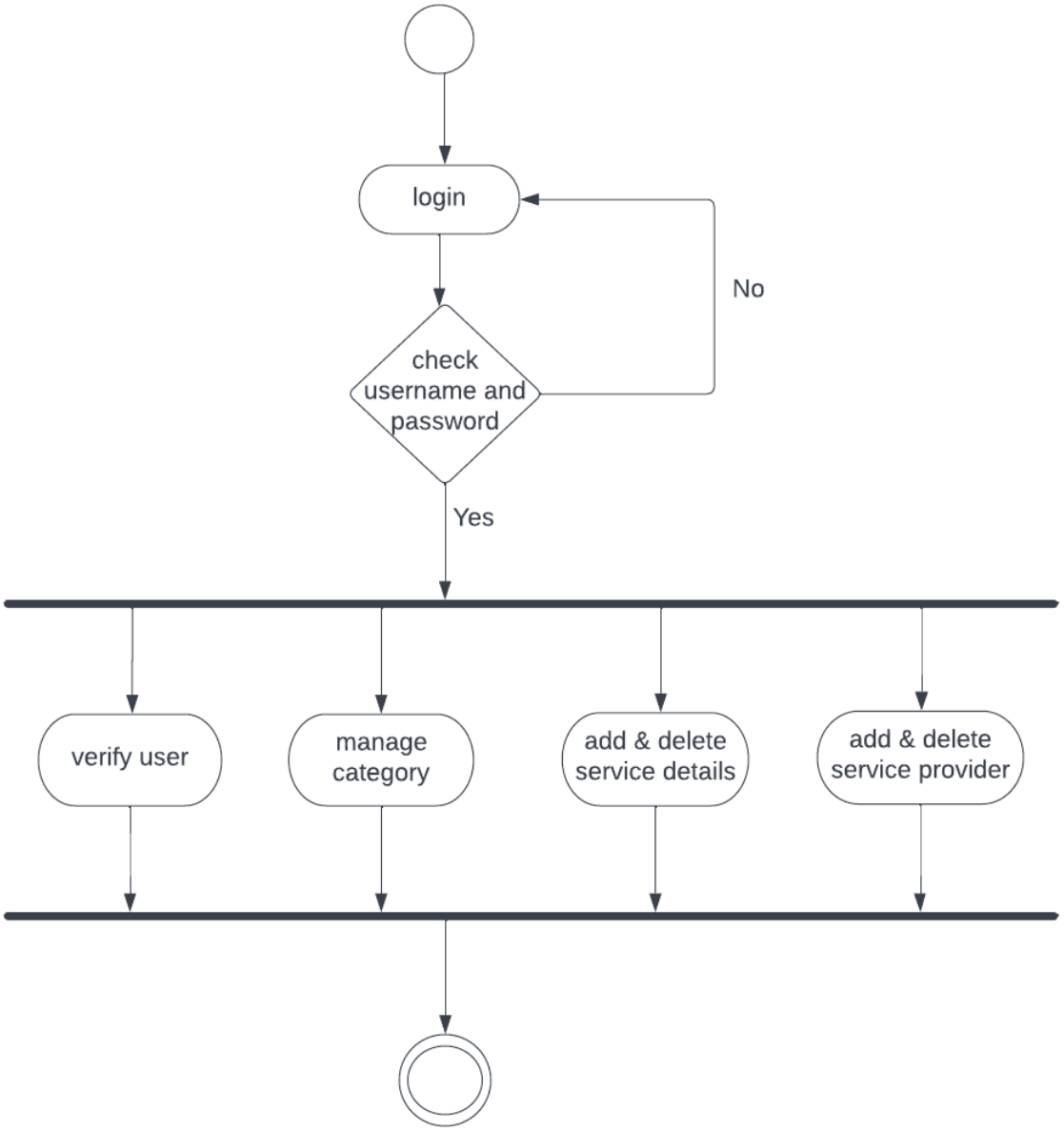


Figure 8: Activity Diagram for Admin

4.3.2.3. SERVICE PROVIDER

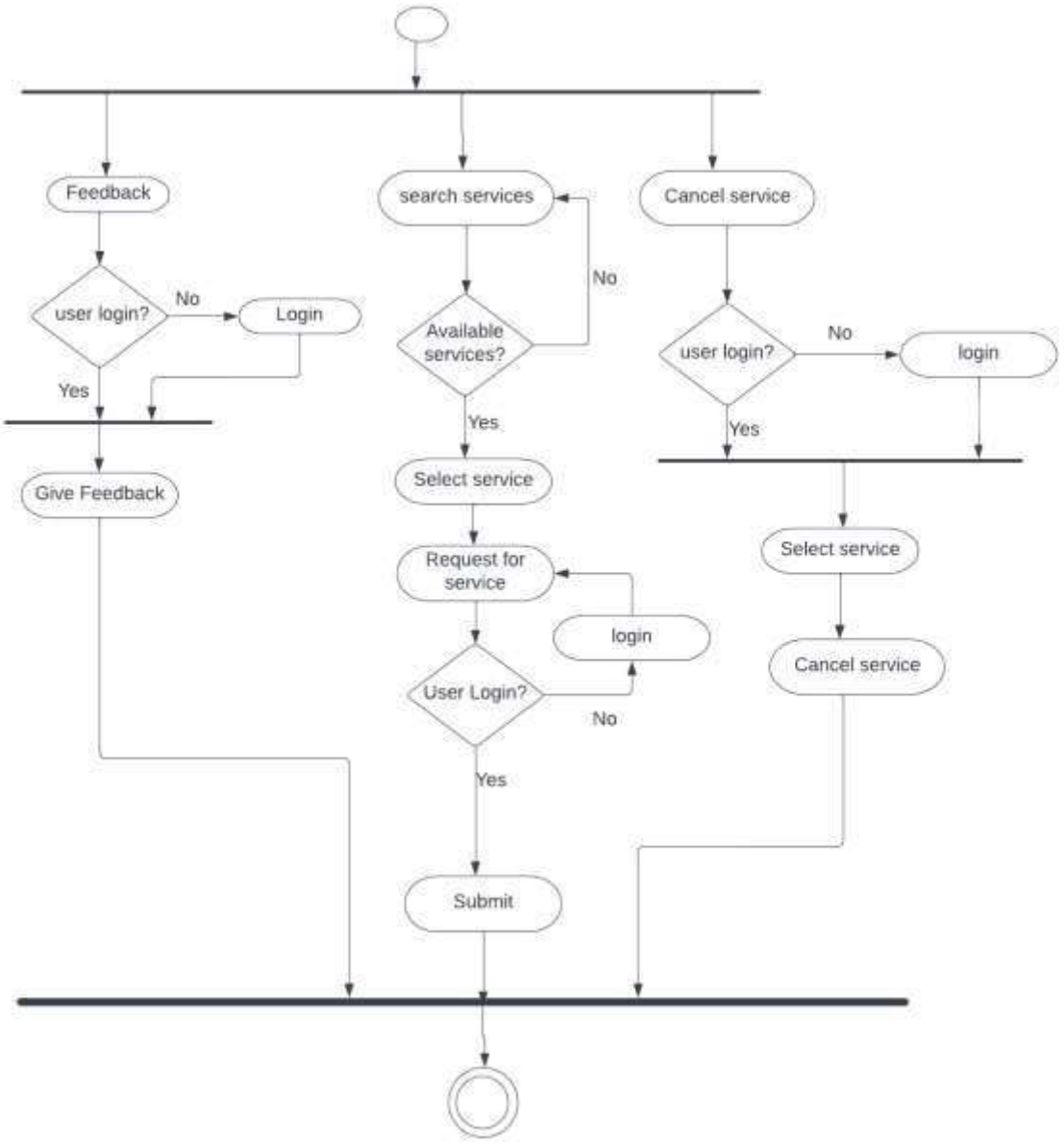


Figure 9: Activity Diagram for Service Provider

4.3.2.4. CUSTOMER

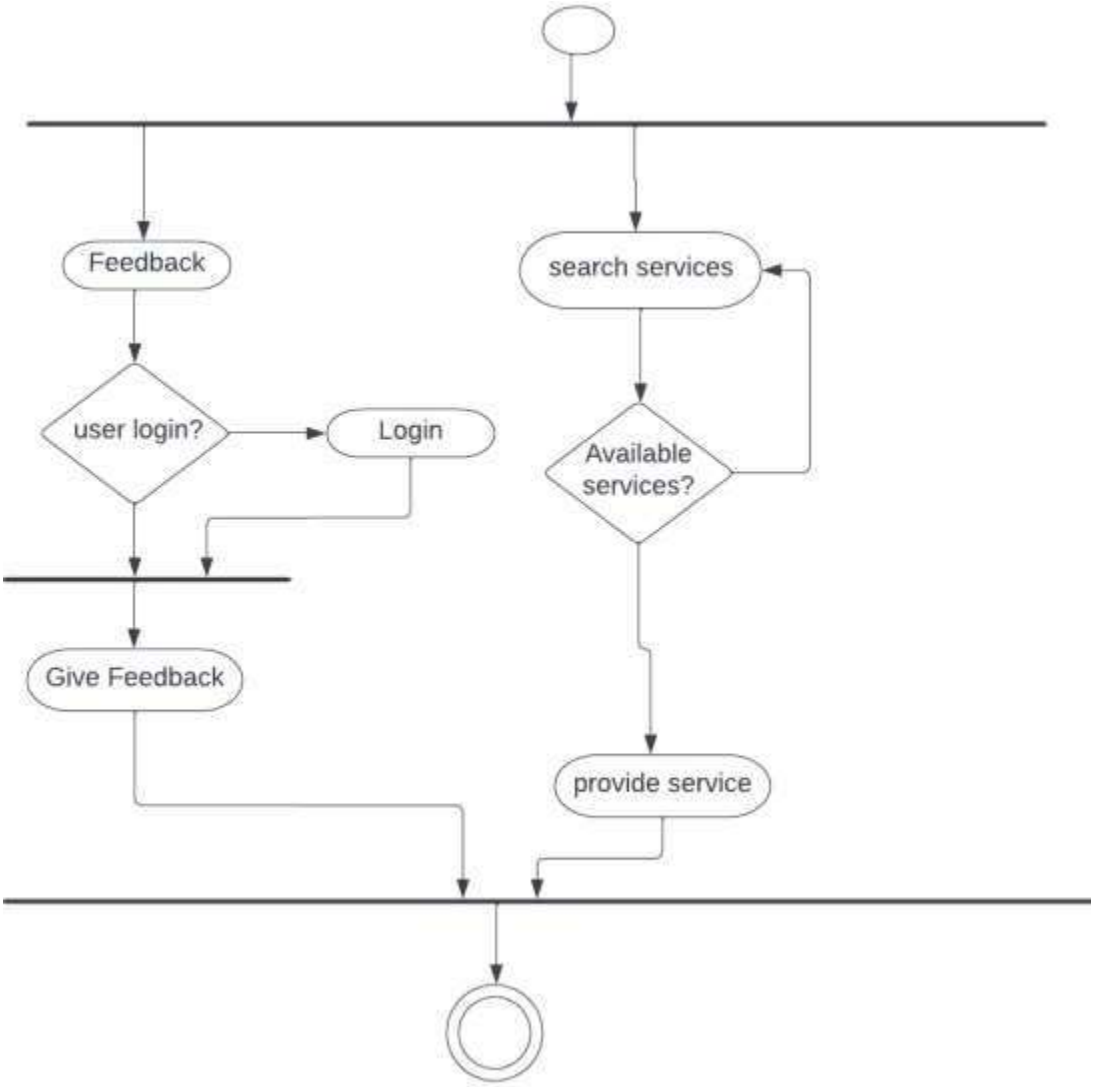


Figure 10: Activity Diagram for Customer

4.3.3. SEQUENCE DIAGRAM

A sequence diagram is an interaction diagram that shows how processes operate with one another and in what order. It is a construct of a Message Sequence Chart. A sequence diagram shows object interactions arranged in time sequence. It depicts the objects and classes involved in the scenario and the sequence of message exchanged between the objects needed to carry out the functionality of the scenario. They are typically associated with use case realization in the Logical View of the system under development.

4.3.3.1. <u>ADMIN:</u>

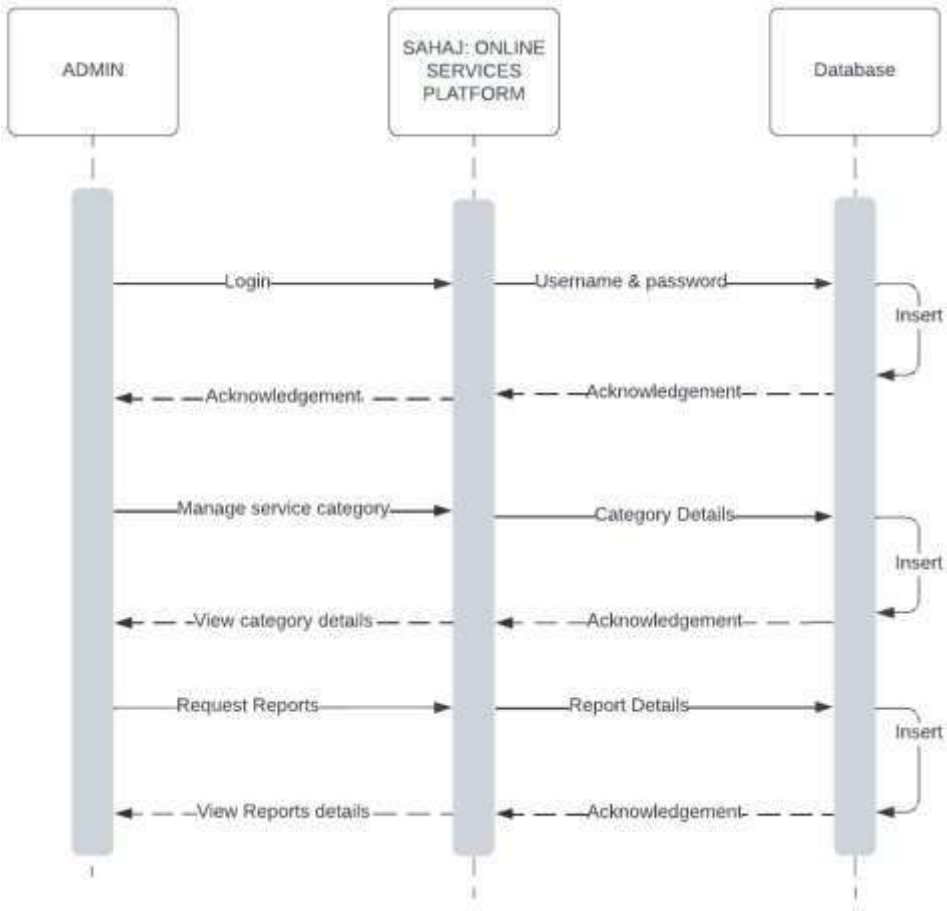


Figure 11: Sequence Diagram for Admin

4.3.3.2. SERVICE PROVIDER:

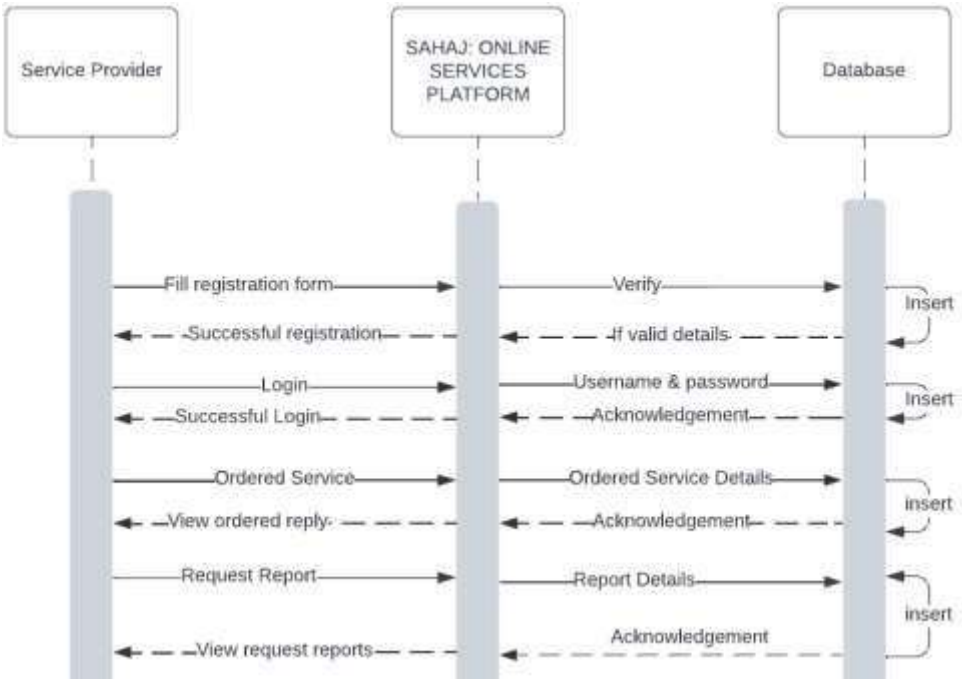


Figure 12: Sequence Diagram for Service Provider

4.3.3.3. CUSTOMER:

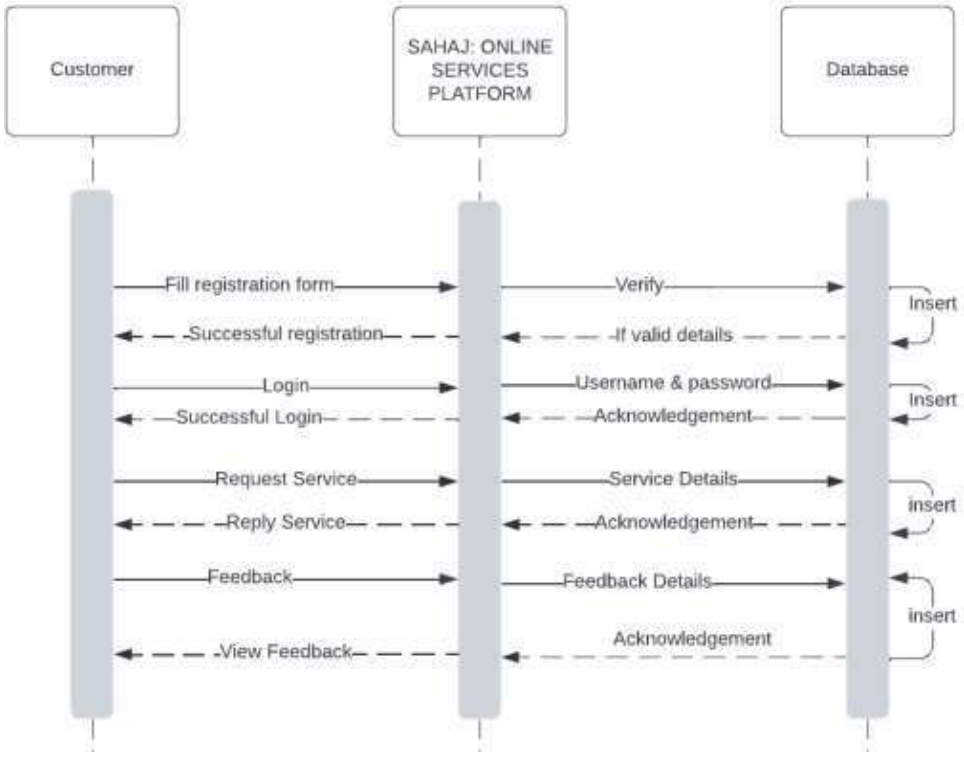


Figure 13: Sequence Diagram for Customer

4.4. FUNCTIONAL AND BEHAVORAL MODELING

It gives the basic description of the functions and the behavior of the system.

4.4.1. DATAFLOW DIAGRAM

A data flow diagram is a graphical representation of the "flow" of data through an information system, modeling its process aspects. A DFD shows what kind of information will be input to and output from the system, where the data will come from and go to, and where the data will be stored. It does not show information about the timing of process or information about whether processes will operate in sequenceor in parallel.

4.4.1.1. DFD DIAGRAM LEVEL 0

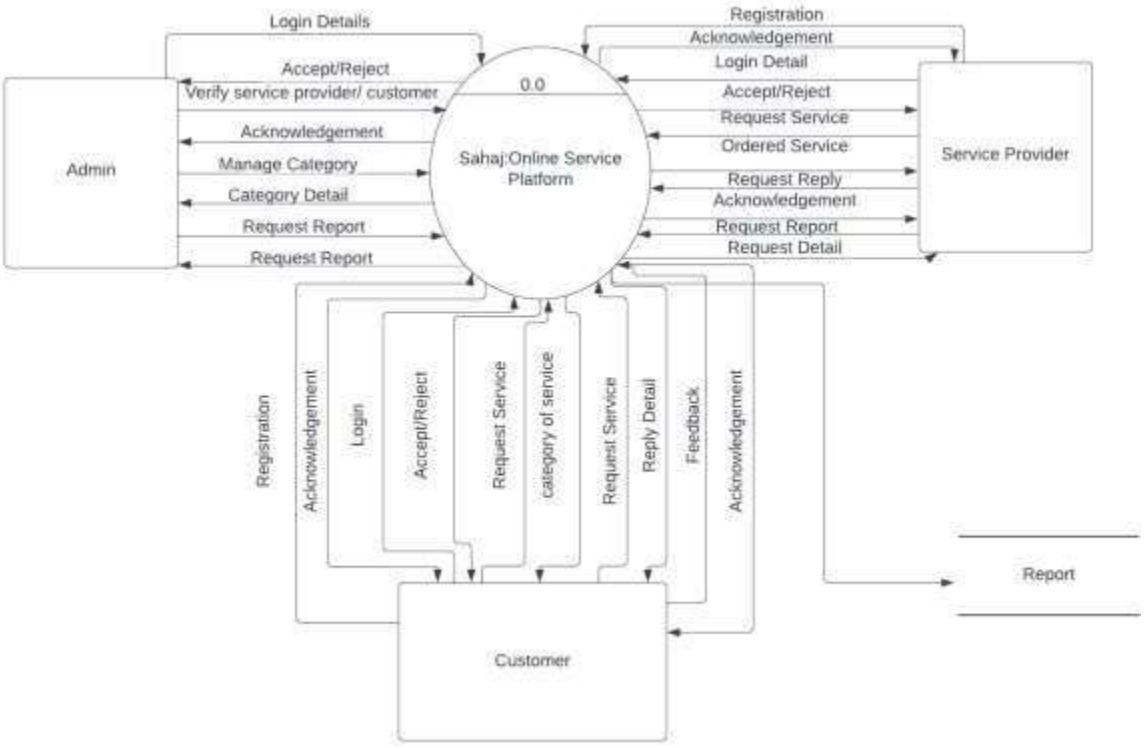


Figure 14: DFD Diagram Level 0

ADMIN:

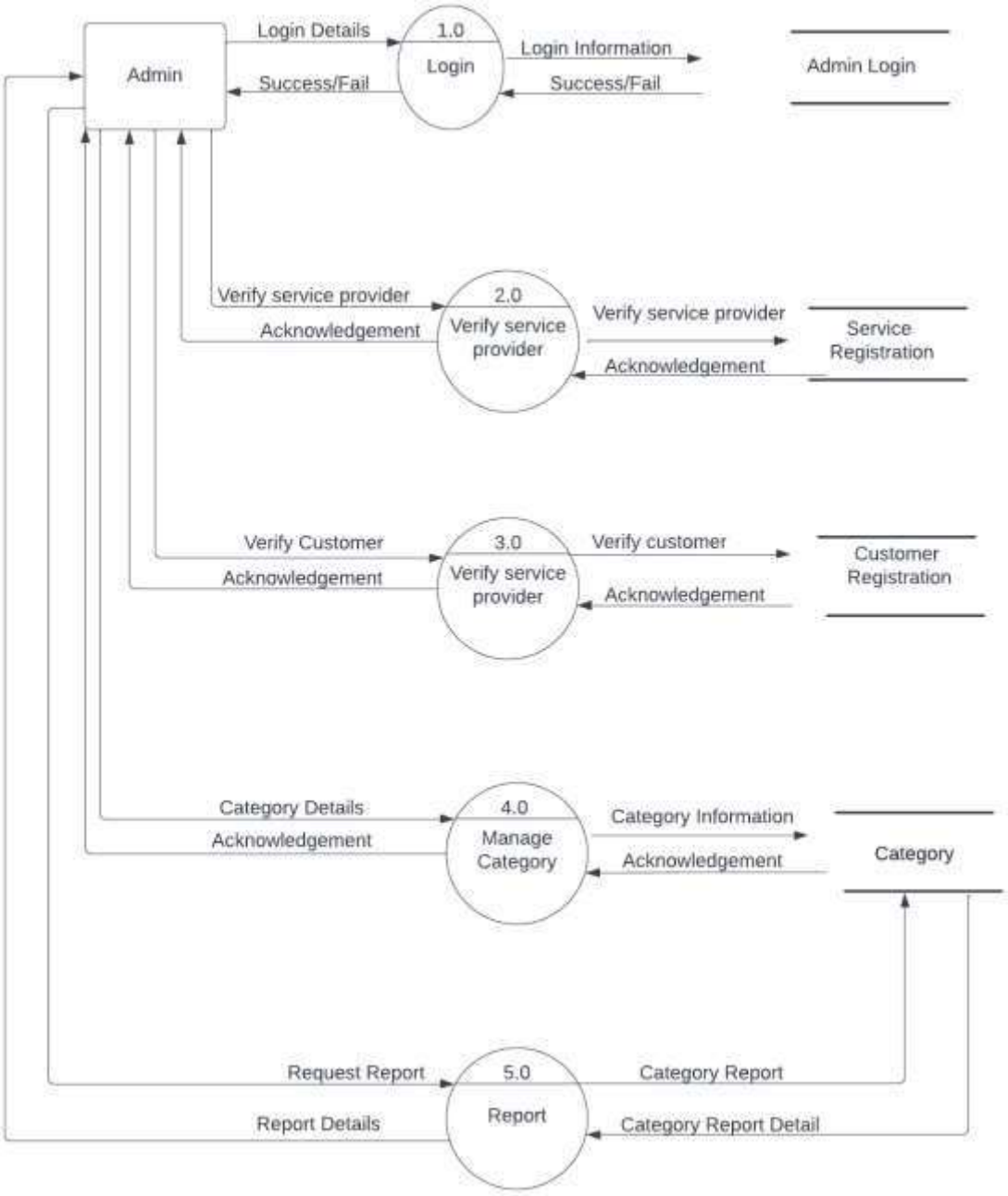


Figure 15: DFD Diagram Level 1 For Admin

SERVICE PROVIDER:

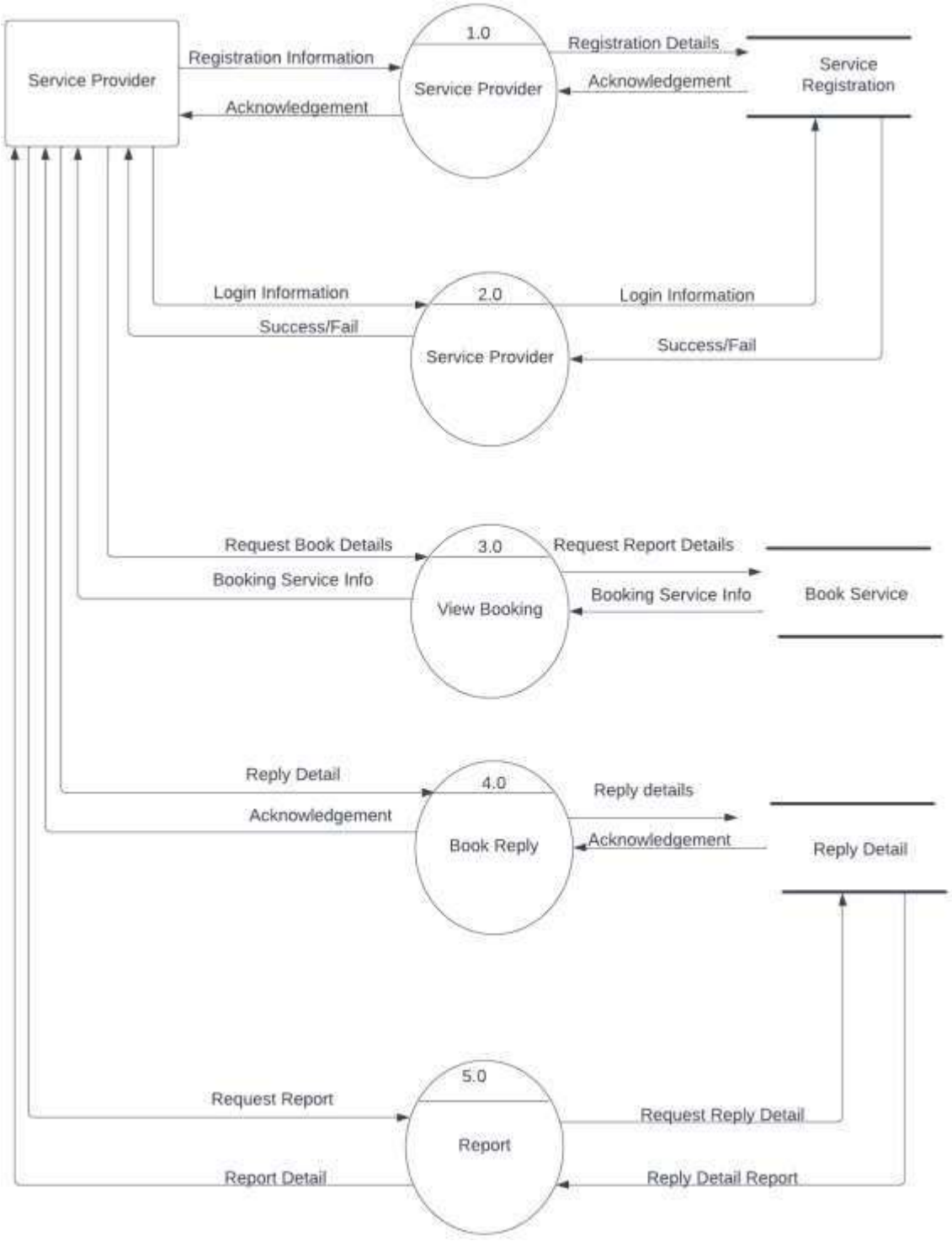


Figure 16: DFD Diagram Level 1 For Service Provider

CUSTOMER:

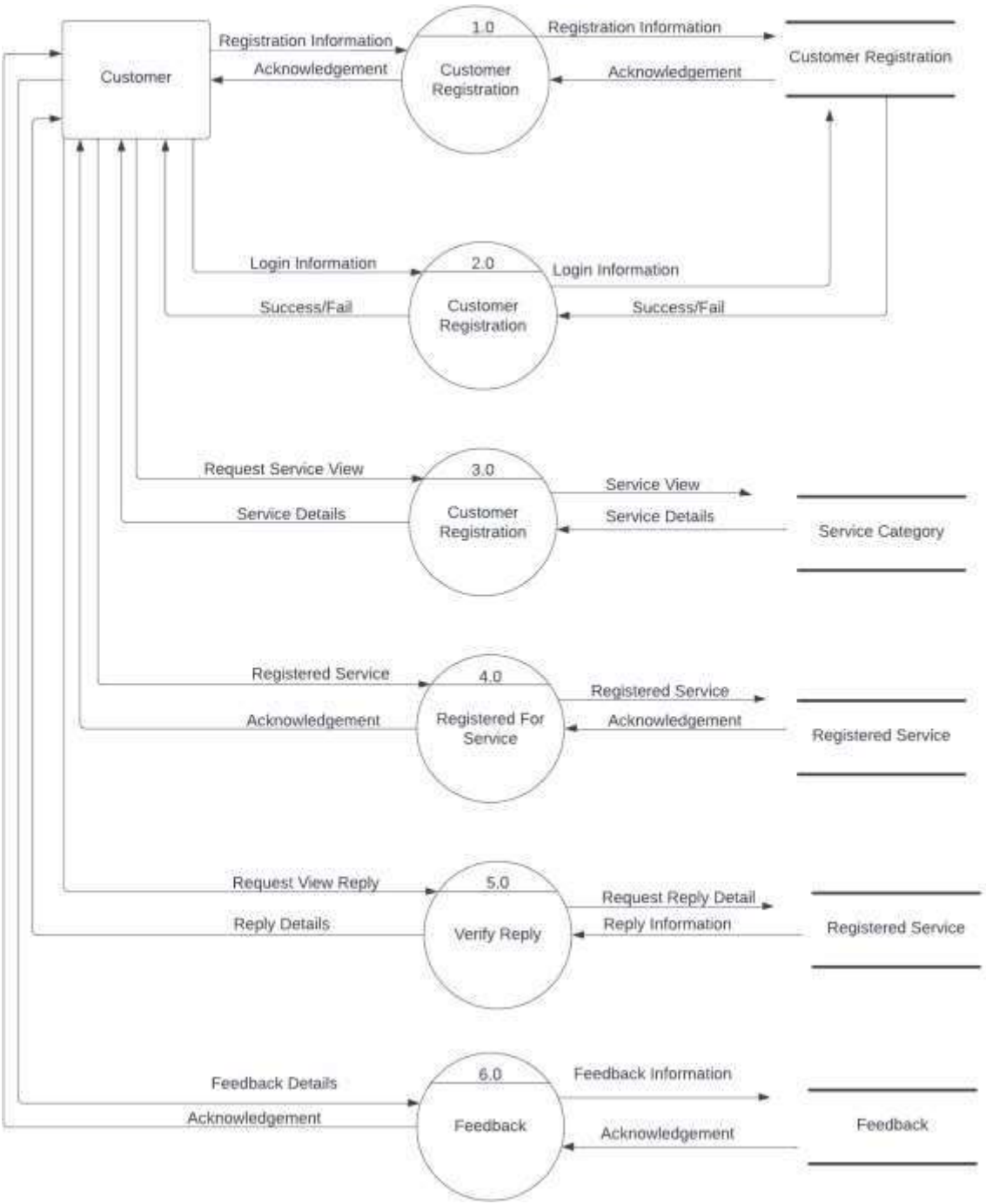


Figure 17: DFD Diagram Level 1 For Customer

4.4.2. CONTEXT DIAGRAM

A context diagram gives an overview and it is the highest level in a data flow diagram, containing only one process representing the entire system. It should be splitinto major processes which give greater detail and each major process may further split to give more detail.

- All external entities are shown on the context diagram as well as major data flow from them.
- The single process in the context-level diagram, representing the entire system, can be exploded to include the major processes of the system in the next level diagram, which is termed as diagram 0.

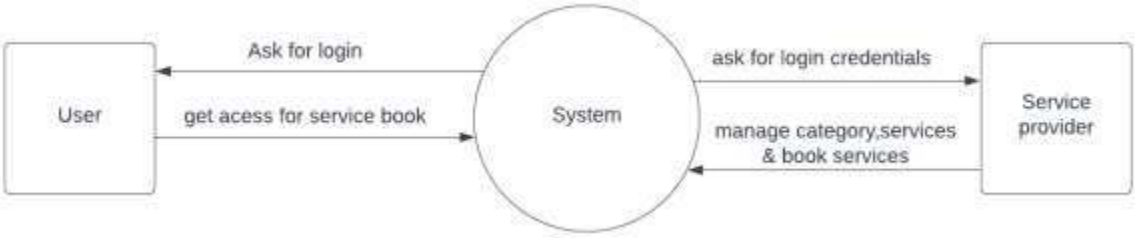


Figure 18: Context Diagram

4.4.3. DESIGN CLASS DIAGRAM

In Object Oriented design, Class diagrams are one of the most useful types of diagrams in UML as they clearly map out the structure of a particular system by modelling its classes, attributes, operations, and relationships between objects. UML class diagrams model todescribe an object-oriented programming approach. Since classes are the building block of objects, class diagrams are the building blocks of UML. The various components in a class diagram can represent the classes that will actually be programmed, the main objects, or the interactions between classes and objects. The class shape itself consists of a rectangle with three rows. The

top row contains the name of the class, the middle row contains the attributes of the class, and the bottom section expresses the methods or operations that the class may use. In general UML Class Diagram, it allows us to:

- Better understand the general overview of the schematics of an application to be developed.
- Illustrate data models for information systems, no matter how simple or complex it is.

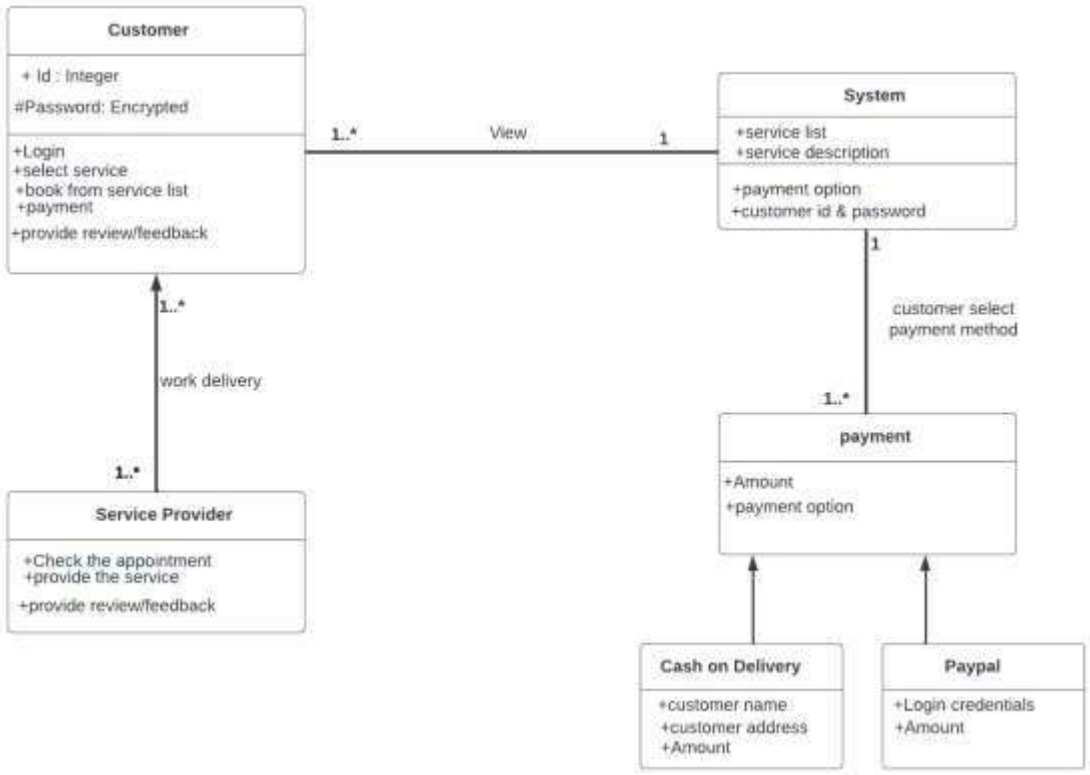


Figure 19: Design Class Diagram

5. TASK DONE SO FAR

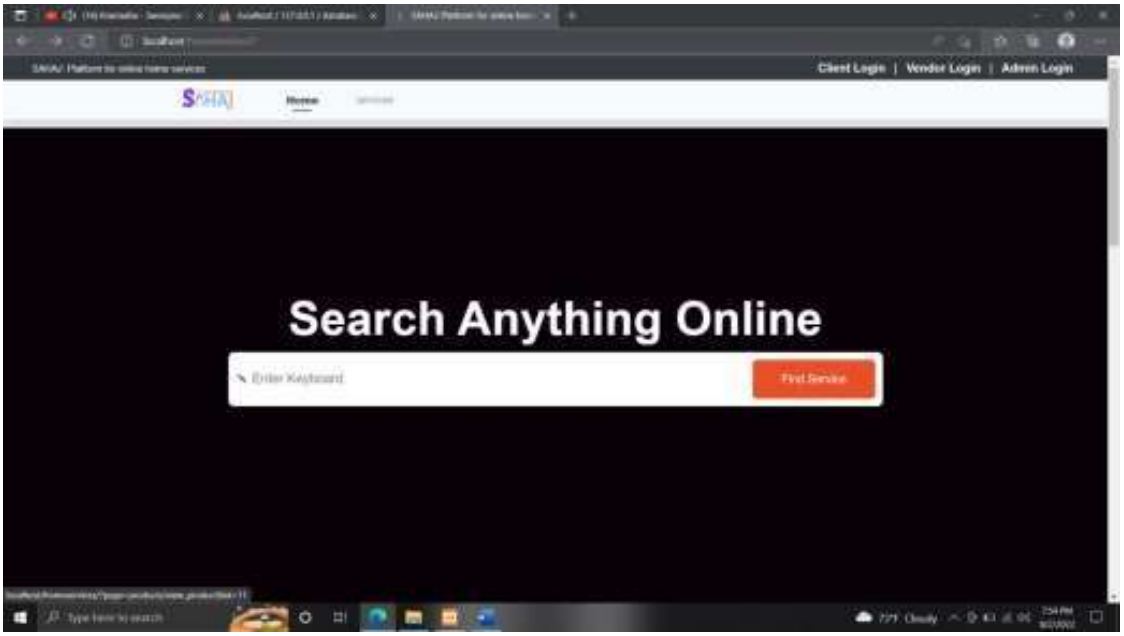
- Login
- booking
- Panel for client, service provider as well as for admin
- Availability of the different service

6. TESTING

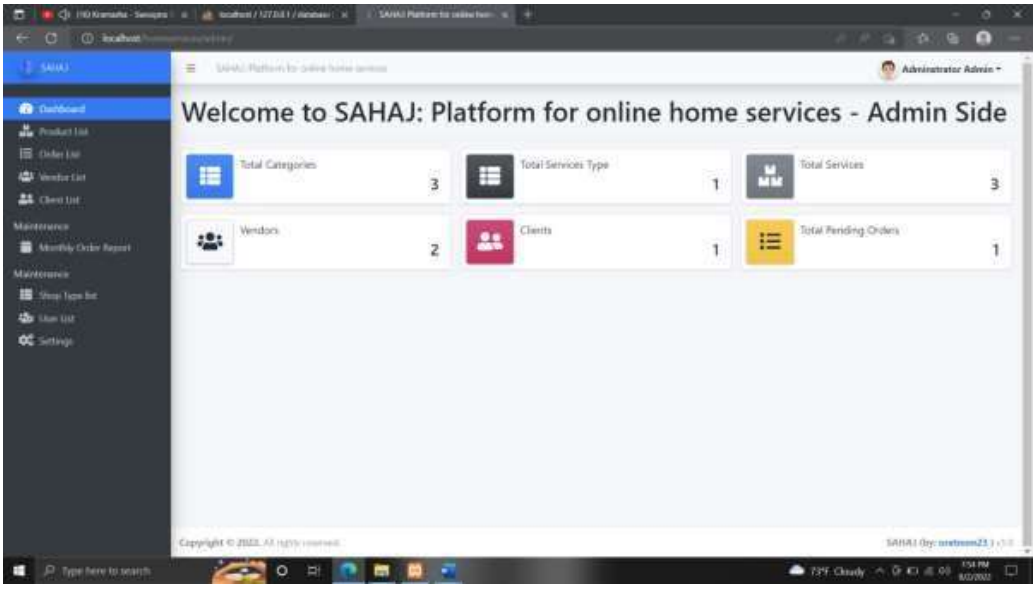
Testing is important phase to ensure that the system meets the requirements that guided its design and development responds correctly to all kinds of inputs and achieves the general result its stakeholder's desire. We wanted to evaluate our system to make sure that all the developed elements worked properly. For this test plan of our work created, in which elements such as validation, reliability and user acceptance was tested. The system was tested for normal condition, primarily. Testing was performed on each unit.

6.1. TEST EVIDENCE

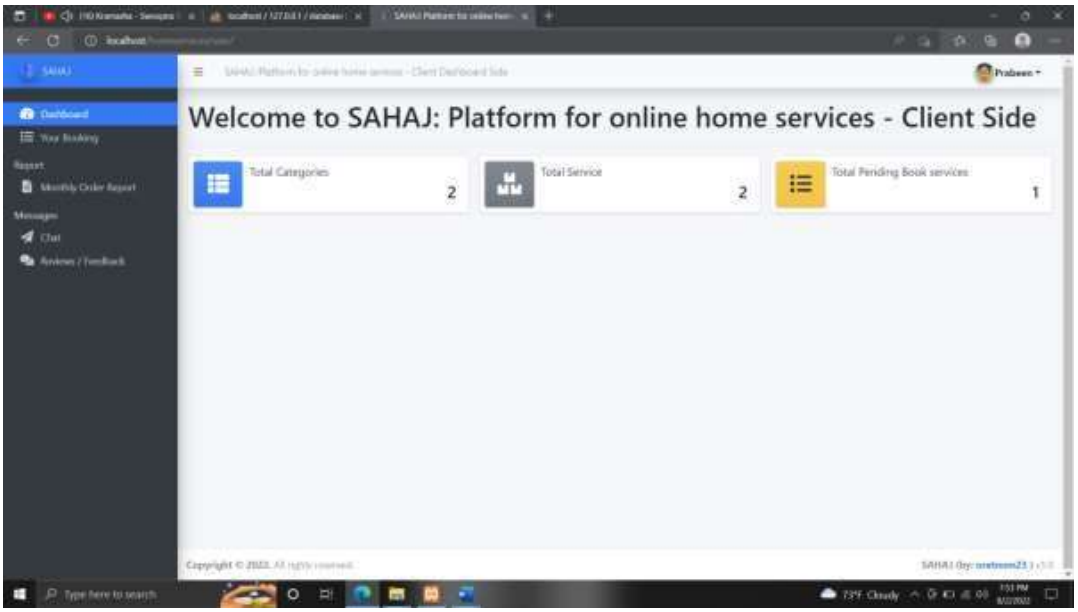
6.1.1. TEST 1.1



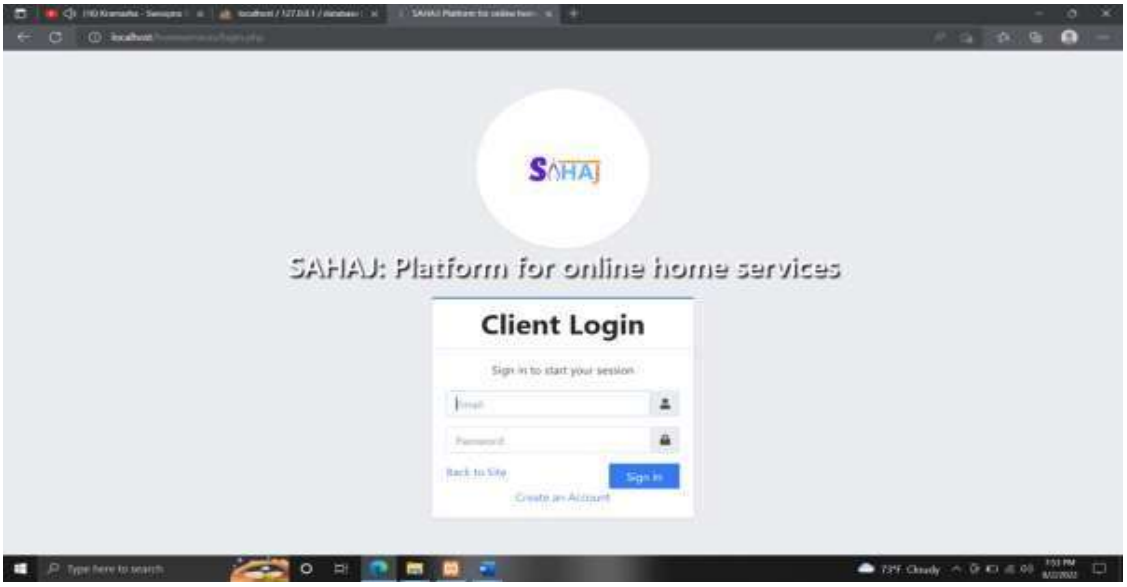
6.1.2. TEST 1.2



6.1.3. TEST 1.3



6.1.4. Test 1.4



A prototype of the final product which includes simple registration, login and service booking function is completed. The customer is able to view which service as well to book and give service review. The service provider can view the appoint details and list of servicesbooked by the customer and act accordingly.

7. RESULT AND DISCUSSION

The application can be used for online multi-service provider platform. It is easy to use, since it uses the GUI provided in the user dialog. User friendly screens are provided. The application is easy to use and interactive making online booking a recreational activity for users. It has been thoroughly tested and implemented.

The web based online booking system is developed with the help of different tools such as php, css, html, JavaScript, MySQL. The system has met the objective of result processing of any exam with reliability. Moreover, this system has high operational speed and it is user friendly.

8. PERFORMANCE ANALYSIS AND VALIDATION

- Comprehensive website
- It provides the necessary basic details of the customers with the help of database.
- It keeps the information of database secured by providing access using logininterface.

9. TASKS REMAINING

- Recommendation
- Review/ Feedback system for both customer as well as for service provider.
- Registration page as per service provider specification.
- Flag Tag system for every user as well as service provider according to theirreview/feedback.
- After completion of the task, the service provider as well as customer to review and give feedback which will helps future client to know more abouttheir work.

10. PROJECT TASK

The project schedule has been designed as per requirements and constraints involved. This project is scheduled to be completed in about 2 months. Requirement analysis has been given more emphasis. Research and voice collection is to be done first and well documented. Debugging and Testing is to be done prior to the completion of the project.

Table 1: Project Task and Time Schedule

TASK	APPROX. DURATION (in days)
RequirementAnalysis and Specification	24
Undertake Analysisof the System	29
Design System	46
Coding	53
Testing andDebugging	35
Documentation	57

10.1. GANTT CHART

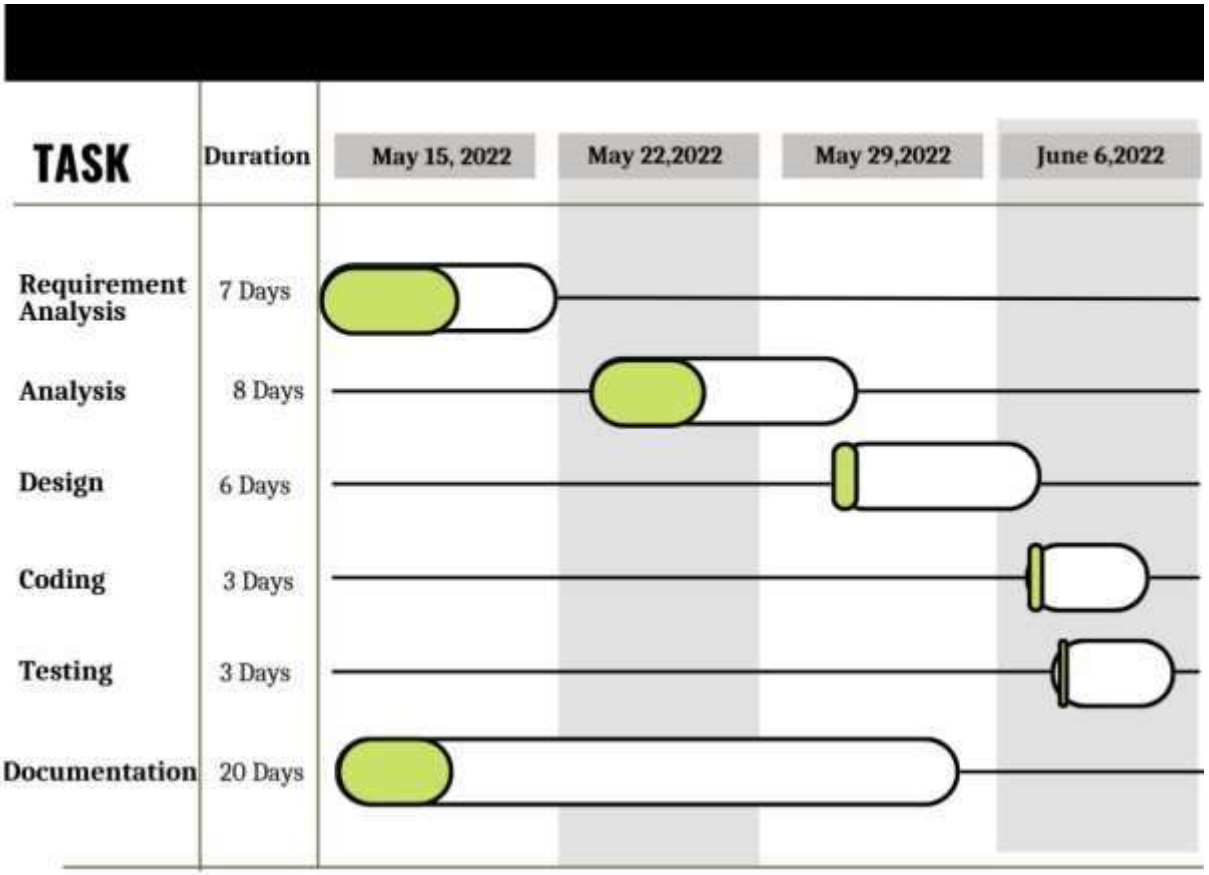


Figure 20: Gantt Chart First Iteration

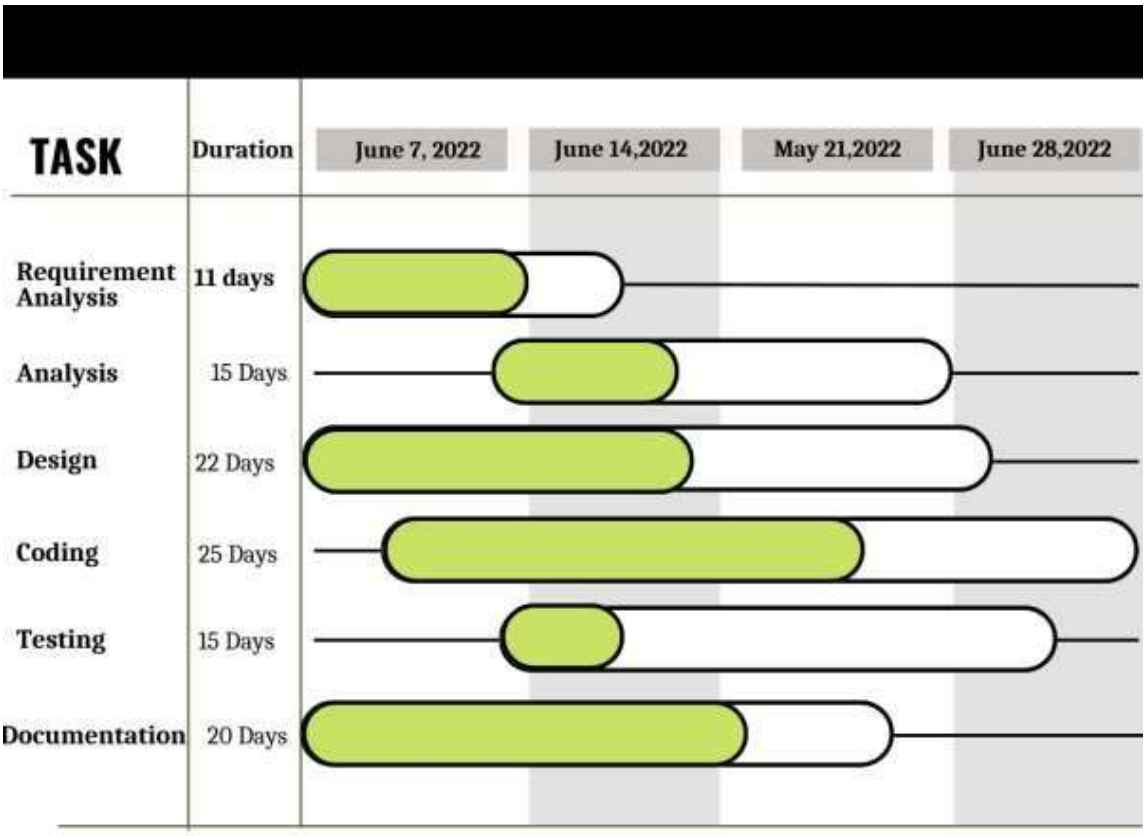


Figure 21: Gantt Chart Second Iteration

11. REFERENCE

- The Multi-service provider Website [Online] Available : https://bookgara.com
- Report Design and hints website : https://ukdiss.com/
- https://github.com/
- The Worldwide Platform for services[Online] Available : https://www.urbancompany.com/
- Semantic Analysis, URL: https://monkeylearn.com/blog/semantic-analysis/ Accessed on: May 19, 2022