Home Services Provider Mobile Application

Final Year Project

Session 2018-2022

A project submitted in partial fulfillment of the degree of

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Faculty of Computer Science & Information Technology

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*The candidates confirm that the work submitted is their own and appropriate credit has been given where reference has been made to work of others

Plagiarism Free Certificate

This is to certify that, I Sameer Ahmed, group leader of FYP under registration no FYP-BCSM-F21-037 at Computer Science Department, The Superior College, Lahore. I declare that my FYP report is checked by my supervisor.

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Project Report

[Home Services Provider Mobile Application]

Change Record

Author(s)	Version	Date	Notes	Supervisor's Signature
	1.0			

APPROVAL

PROJECT SUPERVISOR

Comments: _____

_____

Name:_____

Date:_____ Signature:_____

PROJECT MANAGER

Comments: _____

_____

Date:_____ Signature:_____

HEAD OF THE DEPARTMENT

Comments: _____

_____

Date:_____ Signature:_____

Dedication

This project is dedicated to Almighty God, most Gracious, most Merciful and Determiner of all things without whom we would not have been able to successfully complete this project.

To our parents and to our entire family. We love and appreciate you all very much and appreciate your support.

And also to all those who helped us throughout the process of writing this project we are thankful for their support rendered.

Acknowledgements

Praise and thanks to Almighty God for the success of this project work. It is essential at this point to acknowledge with thanks those who have made useful contributions to facilitate the successful accomplishment of this academic task.

We wish to express or reserved gratitude to our supervisor, Mam Amna Zeesahan for his comments and suggestions for expanding of knowledge on this our research work. We also wish to express our sincere appreciation to the Head of Department of Computer Sciences

Our greetings go to our parents in the persons for your love, care, prayers and sacrifice made us who we are now.

Our deepest appreciation goes to our friends and course mates and everyone who helped us throughout the course of writing this project.

Finally, while we acknowledge the contribution of all, we claim total responsibility for whatever shortcomings the project may have or contain. Perfection belongs only to Almighty God.

Executive Summary

The Software Report will provide a detailed description of the requirements for the Easy life Mobile Application. This Software Report will allow for a complete understanding of what is to be expected from the newly introduced system which is to be constructed. The clear understanding of the system and its' functionality will allow for the correct software to be developed for the end user and will be used for the development of the future stages of the project.

This Software Report will provide the foundation for the project. From this Software Requirements Specification, the Easy Life Mobile Application can be designed, constructed, and finally tested. This Software Report will be used by the system development team.

The main aim of this Project is to provide the facilities for all the members who is the related from this system like Admin, user ,service provider etc. The end users will be able to use this Software Report as a "test" to see if the constructing team will be constructing the system to their expectations. If it is not to their expectations the end users can specify how it is not to their liking and the team will change the Software Requirements Specification to fit the end users' needs.

App user will get a quotation for their job and then they can pick the accurate match. You can easily find any type of Services simply You need to pick from more than 15+ services and book any type of services on the app based on pre-approved costs. A trusted service provider will be shipped to your home at the same time which allocated. It is a safe way because all the service providers are stored in the way. So every history stored and a user can view this from their login panel. This app is a hassle-free experience for getting your work done. Even in-app call & message history are also stored in this interface.

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Chapter 1
Introduction

Chapter 1: Introduction

In this fast growing technology, we still have to take the appointment of person who solve the problems related to our daily life like plumbing related problem, mechanical problem, electrical problem, electronic problem, pest control etc.

To take the appointment of service provider we have to call him or with the personal meeting we can meet him, and it is not sure that we get the appointment of the service provider at a time because there are many problems occur, like the service provider is busy at somewhere else or he is not present at his office when we go there or he wants heavy cost for fix the problem etc.

We are not getting any service on time and also not proper changes of services. It is also not secure in terms of safety concern.

To overcome these type of problem we are going to make our application where the people get appropriate result.

This application is very dynamic and very easy to understand. The interface of the application is very easy and anybody can easily work on it. This application can provide all the description and important information about the problem.

The Household service application is also very useful because the customer don't have to visit to service provider's office, he/she can easily book his/her order via this application and he/she can also pay the payment online in this application and . So he/she can book order without any kind of disturbance. Our application is secured with QR code. It will provide security for the customer.

The UML diagram has been drawn which is useful to display the flow of the process throughout the system so even an inexperienced people can easily get the idea of the proposed system.

1.1. Background

Today People are so busy they do not have enough time. If a person face any problem or need related to their home or need any services related to their life then he have to find a Person Like

(Electrician, Plumber, Carpenter, Home tutor for children etc. that Fix his problem that is very difficult to find a trusted services or If you are new in town or city or change your home to new address it is very difficult to find a trusted Services. Another problem is that Its very difficult to find all products in one shop related to Sanitary, wood hardware , Paint , Books etc.

1.2 Motivations and Challenges

MOTIVATION:

The motive of our project is to control various activities performed From the beginning, the important thing in our mind is that we should concentrate our project work on a subject that is easy to understand and is according to our daily requirement. By keeping this in mind.

CHALLANGES:

Market:

To determine whether there is demand for a Service in the area , certain very important factors must be considered.

Labor Situation:

Problems of lab our is very important. For successfully developing new project it is the lack of adequate labor supply which creates problems rather then the problem from labor such as their demands.

Source of Financing:

This is another very important factor and big problems. Arranging of finances and control of credit line is a very serious problem confronting business today.

1.3 Goals and Objectives

The primary objective of the online system for household services is about delivering the home services at the door step just by one click. This paper 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 an ingenious web based system or a mobile application. 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 and to develop an identical mobile application for opting the services. To design a interactive User Interface for seeking services on the go. To provide a secured online payment gateway for service seekers. To acknowledge the conformation of services opted by the users

1.4 Literature Review/Existing Solutions

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

In existing system the whole process is offline and customer can not get proper solution for the problem. The existing system is not available for 24 hours, so the customer can not get solution for any time.

We also observe the problem of plumbing at our home, there is one type of plumbing problem is occur, In that situation what we will do. Firstly we call the plumber and take his appointment if available or we directly meet him for the appointment to fix the problem. This process is very time consuming and it is not sure that we get the appropriate solution for our problem.

We also noticed that if we are going somewhere and our vehicle is get suddenly stop. In this situation what we will do is that we call the mechanic to fix the problem which occur in our vehicle, and at one moment if we block in some place where no network is available in our phone and at that place the rush of traffic is very less so which kind of problem we have to faced. Firstly We have to find the mechanic and ask him for fix the problem. This process is very time consuming and it is not sure that we get the solution for the problem because many problems are occurs in that situation like mechanic is busy in other work or his payment is very high according to the problem etc.

By observing these type of problems we thought that, how can we get the solution of these type of problem in easy and appropriate way, then we get the idea to developing our android application

and website where people can get any type of services like plumbing, electrical, electronics, pain, pest control etc.

In this stage of technology our application is very simple and easy to understand.

1.5 Gap Analysis

A successfully performed GAP analysis identifies the actual gap between where an organisation is and where an organisation wants to be, and the actually gap that needs to be overcome to achieve the desires state.

Developing a strategy and associated action plans to close the gap in a commercially viable solution is one of the most challenging activates during the entire GAP analysis.

The concept of GAP analysis can be used in many application, our team have been delivering GAP analysis services to our client base for over 30 years.

The step by step process and proven track record of how CPG performs GAP analysis services serviced ensures that our clients are able to clearly understand the identified GAP and what is need to close the gap regardless of focus GAP being Training, Auditing and or Certification needs.

1.6 Proposed Solution

After Analyze on all that problem We make an Application in which we can easily resolve this problem in which You can easily find any type of Services simply You need to pick from more than 15+ services and book any type of services on the app based on pre-approved costs. A trusted service provider will be shipped to your home at the same time which allocated. Simply you need to send a request for professional services by an app by answering simple questions. Select from a list of pre-screened experts, as per your demands and necessity. Look at their profiles and reviews for each and professional, analyze quotes and hire the best one which you like.

Unique Option:

There are many application or online Services related to that problem but our application provide some unique option that make difference from other app or online Services. The Unique feature of

over application is that we provided an online store for our customer in which customer can easily find their product related to sanitary, wood hardware , Paint , Books etc.

1.7 Project Plan

The plan consist of collecting requirement ,creating gantt chart ,data flow diagram ,use case diagram ,class diagram, sermantic model diagram, sequence diagram, collaboration diagram, activity diagram and implementation

1.7.1 Work Breakdown Structure

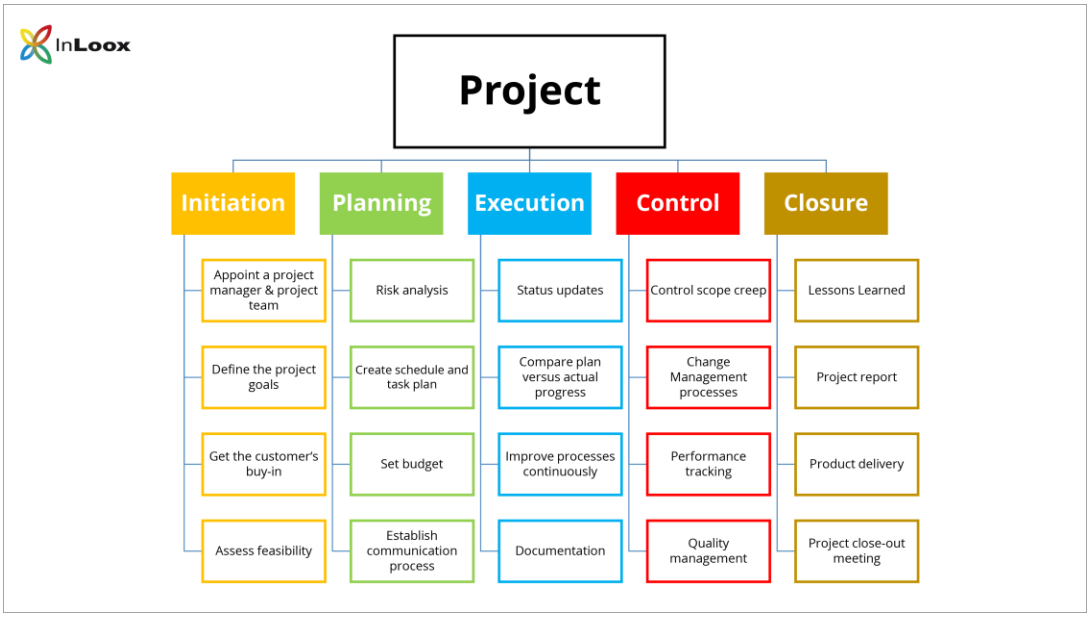


Fig 1.1: Work Breakdown Structure

1.7.2 Roles & Responsibility Matrix

Members Name	Sameer	Huzaifa	Ubaid
Front end Developer	✓	✓	✓
Back end Developer	✓	✓	✓
Documentation	✓	✓	✓
Application development	✓	✓	✓

Table 1.1: Roles & Responsibility Matrix

1.7.3 Gantt Chart

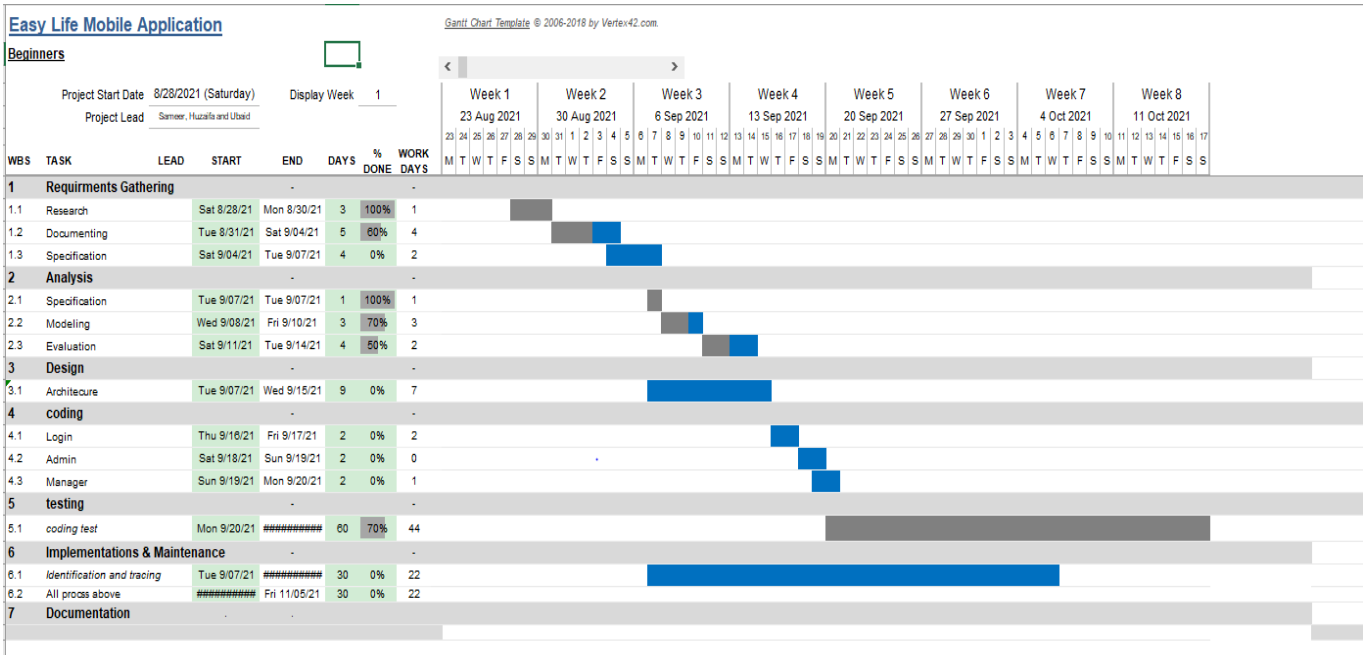


Fig 1.2: Gantt Chart

This is the gantt chart which is describing in the diagram that the work starts and how it takes time to complete in weeks or months and by diving the work in the a day and in a week and in a month.

1.8 Report Outline

Chapter 1 is the general introduction to the project. This gives the summary of project and its purpose & the scope of this project.

Chapter 2

Software Requirement Specifications

Chapter 2: Software Requirement Specifications

2.1 Introduction

2.1.1 Purpose

Our purpose of developing this project is mainly online there website and android application.

We have observed how limitations in existing system:

- Existing system is offline.
- Difficult to manage records.
- No time limit for service to be provided.
- No guarantied service.
- Difficult to find paper service provider.
- 24 hours service is not available.
- No security.

So, our purpose is to overcome this limitation with following features.

- House hold services easy available.
- To provide house hold services any time.
- Easy online shopping
- Saving of time.
- Make available house hold services through application.

2.1.2 Document Conventions

The document is prepared using Microsoft Word 2019 and has used the font type 'Times New Roman'. The fixed font size that has been used to type this document is 12pt with 1.5 line spacing. It has used the bold property to set the headings of the document. Use case scenario is written according to Alistair Cockburn's template. UML diagrams have been created according to UML 2.0 standards. Standard IEEE template is the template used to organize the appearance of the document and its flow.

2.1.3 Intended Audience and Reading Suggestions

The intended audience of this document would be owner and project team with the objective to refer and analyze the information. The SRS document can be used in any case regarding the

requirements of the project and the solutions that have been taken. The document would final provide a clear idea about the system that is building.

Brief outline of the document is,

1. Overall Description
2. System Features
3. External Interface Requirements
4. Non Functional Requirements

2.1.4 Product Scope

The scope of our project is to designing a complete environment to provide a safe and user friendly environment for online service booking. The main aim of the project is to provider an easy to use application for services provided for customer.

We often get frustrated while taking the appointment of service provider because there the many problems are occur, like the service provider is busy art somewhere else or his not receiving our call or his cost is very high according to problem. So in this project we will remove this headache.

2.1.5 References

[2] L.RichardYe, Yue Jeff Zhang, Dat-DaoNguyen, James Chiu,"Fee-based online services: Exploring consumers'willingness to
pay ". Journal of International Technologyand Information Management.

[3] Bo Zhang, Ruihan Yong, Meizi Li, Jianguo Pan, Jifeng Huanglaa, " A Hybrid Trust Evaluation Framework for E-commerce

2.2 Overall Description

2.2.1 Product Perspective

The EasyLife mobile application is a new software product which will be produced by the project team in order to overcome the problems . The newly introduced will contain user friendly functions with attractive interfaces. The system will give better options for the problem the customer don't

have to visit to service provider's office, he/she can easily book his/her order via this application and he/she can also pay the payment online in this application and . So he/she can book order without any kind of disturbance. Our application is secured with QR code. It will provide security for the customer.

2.2.2 Product Functions

Admin

- Verify service provider and customer.
- Manages all the categories of service.
- Take the payment from the customer.
- Add the new advertisement.
- Send notification to the customer and service provider.
- Give order for service instrument to the shopkeeper.
- Comment to user.

Service provider:

- View Services
- Request for Services
- Registration
- View Pending Services

Customer:

- View service
- Register for Services
- Give Feedback

2.2.3 User Classes and Characteristics

The users of the system include:

- Admin
- Service Provider
- Customer

Admin:

Administrator has maximum privileges to access the system. He maintains user login details, can assign access rights to a user, can manipulate data and do all the transactions. Administrator is the super-user of the system.

He/She can verify service provider and customer.

He/She manages all the categories of service.

He/She can take the payment from the customer.

He/She can add the new advertisement.

He/She can send notification to the customer and service provider.

He/She can give order for service instrument to the shopkeeper.

He/She can also comment to user.

Service Provider:

In this android application service provider first do registration and then login after this process the service provider can view the service which are ordered by user and send acknowledgement to the user in positive reply. After that service provider get the QR code which is matched with the QR code of customer.in this application we are providing the map for the service provider to find his location. The then service provider comes at the place of customer then he verify the QR code with the customer and then do his work.

Customer:

In this application the customer first do registration and then do login, after the user search for the particular service and receiver the list of service available on our android application. The user then selects the service and request for the service after this process

2.2.4 Operating Environment

Hardware:-

- Any Smartphone

Software:-

- Marshmallow or above
- 2 GB RAM and more
- 8 GB and more

- Front End:
  - Eclipse Version : Indigo Service Release 2
- Back End:
  - SQL Server 2008 R2
  - Wamp Version 1.8.3-5

2.2.5 Design and Implementation Constraints

Software development crew provides their best effort in developing the system. In order to maintain the reliability and durability of system, some design and implementation constraints are applied. System will need a minimum memory of 512MB. But it is recommended to have a memory of 1GB. When designing interfaces of system, we had the capability of work with new tools.

2.2.6 User Documentation

User manual provide to the client will give a clear idea in interacting with the system. It will be written in a simple understandable language concealing the inner complexity of the system. A hard copy of the user manual will be delivered to the client with the delivery of system.

2.2.7 Assumptions and Dependencies

Some software used in implementing the system is with high cost and they agreed to afford the amount of money needed to purchase them. It's assumed that they won't change that decision on the next phases of the software development. Otherwise if client use an open source operating system, there is a need of changing the SRS accordingly.

2.3 External Interface Requirements

2.3.1 User Interfaces

The user interface for the software shall be compatible to any browser such as Internet Explorer, Mozilla or Netscape Navigator by which user can access to the system.

The user interface shall be implemented using any tool or software package like Java Applet, MS Front Page, EJB etc.

2.3.2 Hardware Interfaces

Since the application must run over the internet, all the hardware shall require to connect internet will be hardware interface for the system. As for e.g. Modem, WAN – LAN, Ethernet Cross-Cable.

2.3.3 Software Interfaces

The software shall be able to give service at time.The software provide complete security to its customer.The software shall communicate with Sales system for order management.The software shall communicate with the Configurator to identify all the available components to configure the product.

2.3.4 Communications Interfaces

The e-store system shall use the HTTP protocol for communication over the internet and for the intranet communication will be through TCP/IP protocol suite.

2.4 System Features

This template illustrates organizing the functional requirements for the product by system features, the major services provided by the product. You may prefer to organize this section by use case, mode of operation, user class, object class, functional hierarchy, or combinations of these, whatever makes the most logical sense for your product.

2.4.1 System Feature 1

2.4.1.1 Description and Priority

This feature used by the user to login into system. A user must loginwith his user name and password to the system after registration. If theyare invalid, the user not allowed to enter the system

2.4.1.2 Stimulus/Response Sequences

Function 1	**Login**
Input	Code, username, password
Output	Database Record,
Processing	Validate the given details

Table 2.1: System feature Login

2.4.1.3 Functional Requirements

Username and password will be provided after user registration is confirmed.

Password should be hidden from others while typing it in the field.

2.4.2 System Feature 2

2.4.2.1 Description and Priority

The user can add the desired product into his cart by clicking add to cart option on the product. He can view his cart by clicking on the cart button. All products added by cart can be viewed in the cart. User can remove an item from the cart by clicking remove. After confirming the items in the cart the user can submit the cart by providing a delivery address. On successful submitting the cart will become empty.

2.4.2.2 Stimulus/Response Sequences

Function 2	**Purchase An Item**
Input	Code, purchase, category
Output	Database Record,
Processing	View, Validate the given details

Table 2.2: System feature Purchase Item

2.4.2.3 Functional Requirements

System must ensure that, only a registered customer can purchase items.

2.5 Other Nonfunctional Requirements

2.5.1 Performance Requirements

Performance requirements define acceptable response times for system functionality. Although the system is developed suiting for the least system performances, the performance of the system will highly depend on the performance of the hardware and software components of the installing device. When consider about the timing relationships of the system the load time for user interface screens shall take no longer than two seconds. It makes fast access to functions. The log in information shall be verified within five seconds causes' efficiency of the system. Returning query results within five seconds makes search function more accurate.

2.5.2 Safety Requirements

There are several user levels in hotel management system, Access to the various subsystems will be protected by a user log in screen that requires a user name and password. This gives different views and accessible functions of user levels through the system. Maintaining backups ensure the system database security. System can be restoring in any case of emergency

.

2.5.3 Security Requirements

Admin and user and service provider will be able to log in to the Application. Every one have its own login account and have access to their own account and their services

2.5.4 Software Quality Attributes

3 Availability: - The system shall be available all the time.

4 Efficiency: - How much less number of resources and time are required to achieve a particular task through the system.

5 Flexibility: - Ability to add new features to the system and handle them conveniently.

6 Portability: - The Application shall run in any environment

7 Reliability: - Specify the factors required to establish the required reliability of the software system at time of delivery. Mean time between failures and mean time to recovery

8 Reusability: - What is the ability to use the available components of the system in other systems as well.

9 Testability: - Effort needed to test to ensure performs as intended

10 Maintainability: – What design, coding standards must be adhered to exclusions created

2.5.5 Business Rules

Admin:

Administrator has maximum privileges to access the system. He maintains user login details, can assign access rights to a user, can manipulate data and do all the transactions. Administrator is the super-user of the system.

In this android application service provider first do registration and then login after this process the service provider can view the service which are ordered by user and send acknowledgement to the user in positive reply. After that service provider get the QR code which is matched with the QR code of customer.in this application we are providing the map for the service provider to find

his location. The then service provider comes at the place of customer then he verify the QR code with the customer and then do his work.

In this application the customer first do registration and then do login, after the user search for the particular service and receiver the list of service available on our android application. The user then selects the service and request for the service after this process

2.6 Other Requirements

All the data is save in database. their is not any chance of lost of data.

Chapter 3
Use Case Analysis

Chapter 3: System Analysis

The chapter covers the design analysis made by developer of the system which includes Use Case Diagram, details of the use cases and their description.

3.1 Use Case Model

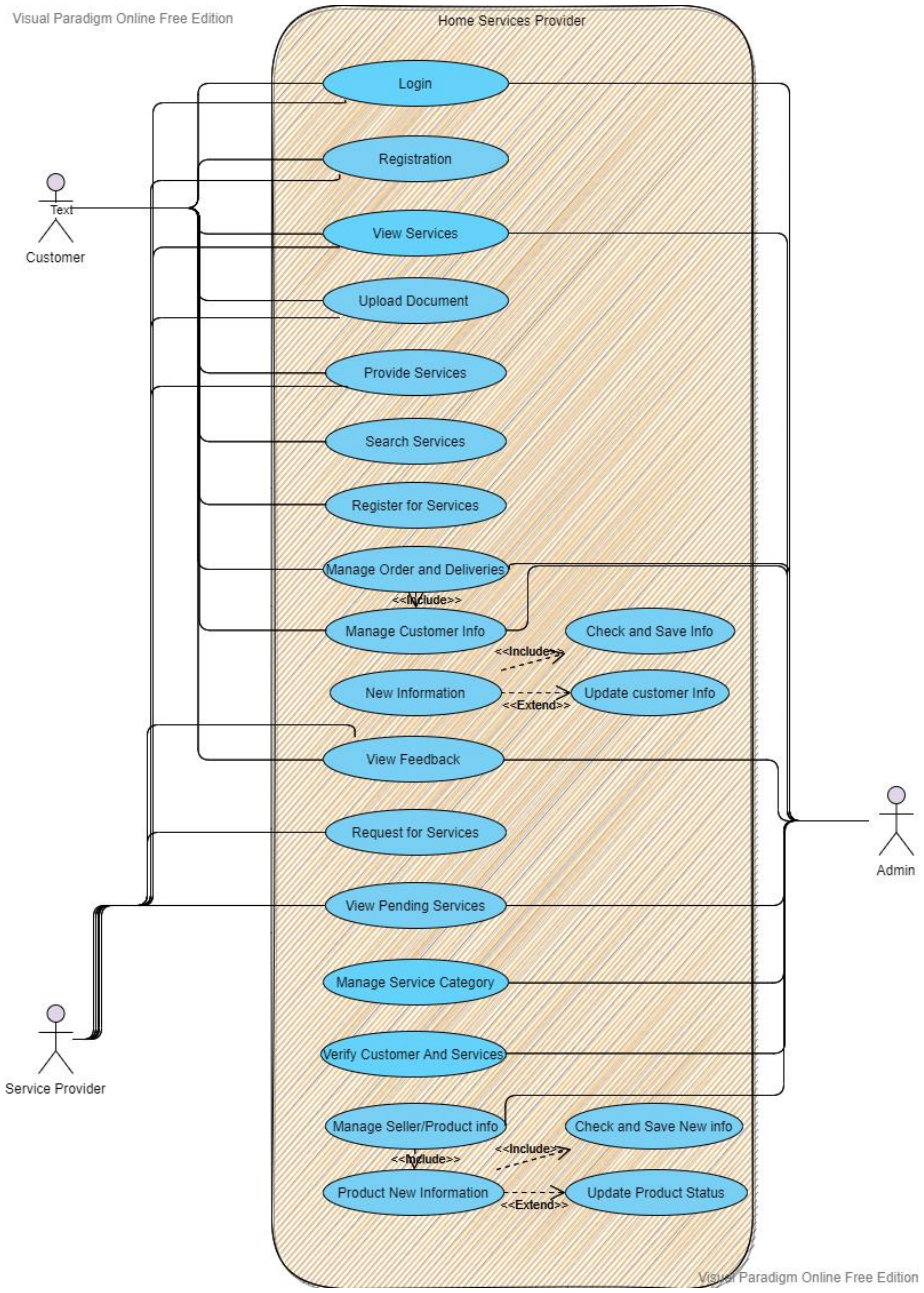


Fig 3.1: Use case

Admin Case Model:

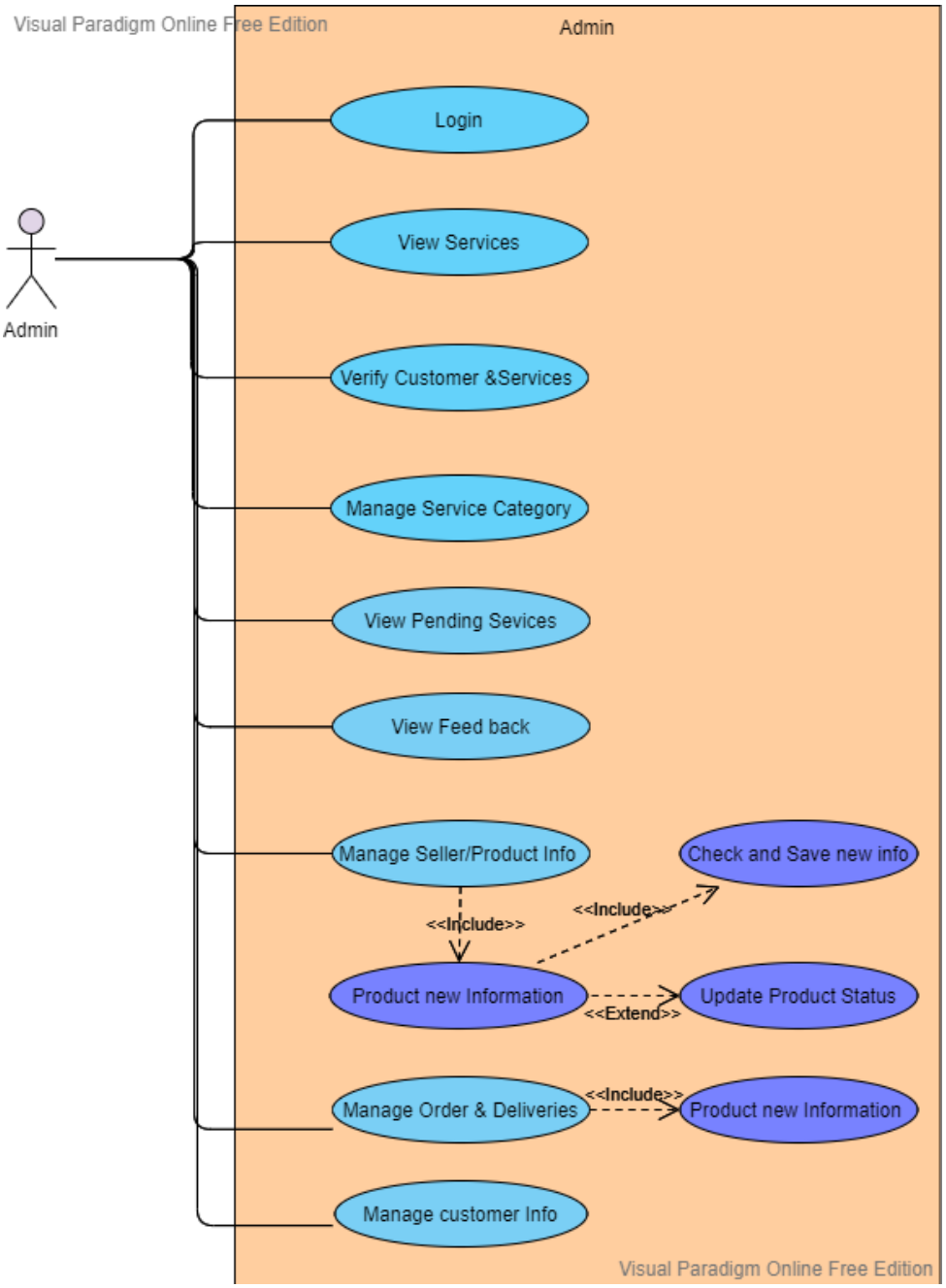


Fig 3.2: Use case admin

Service Provider Case Model:

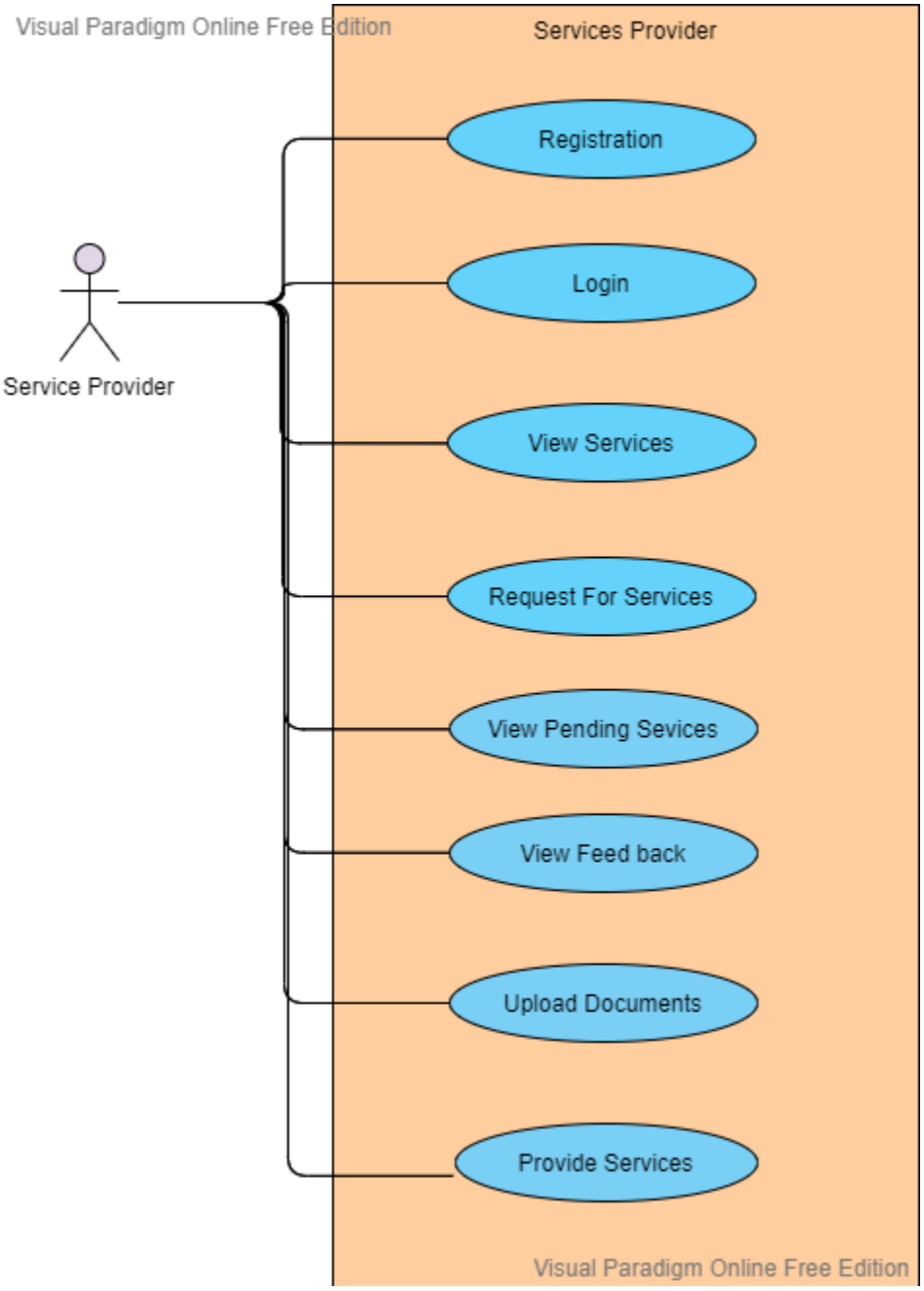


Fig 3.3: Use case service provider

Customer Case Model:

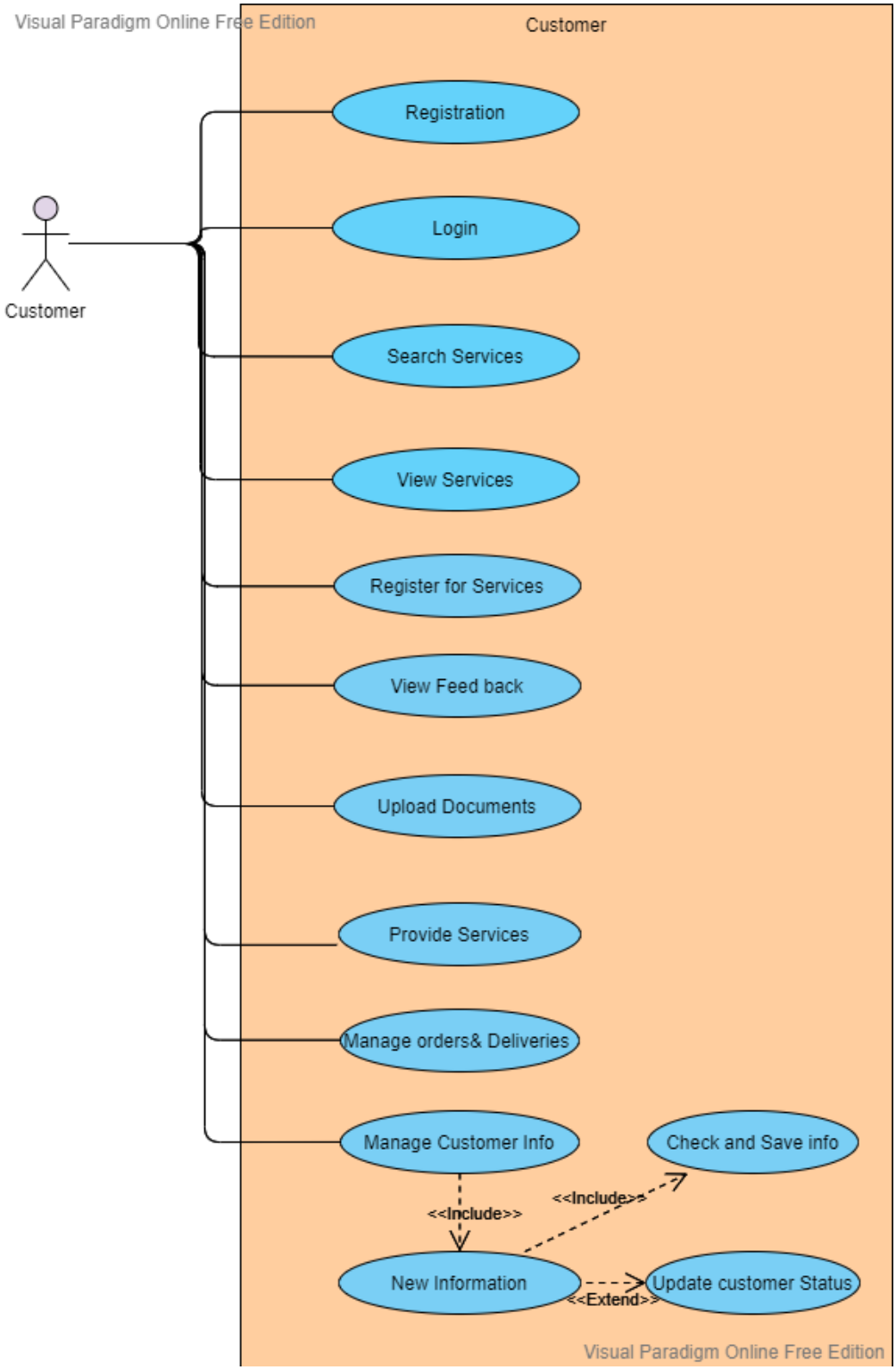


Fig 3.4: Use case customer

3.2 Use Case Descriptions

Use Case ID	Use Case 1
Use Case name	Signup Use Case
Actors	Customers, Workers, Admin
Purpose	To register workers and customers
Overview	User can create account to order services
Pre-Condition	Users must have an internet connection and fill all essential fields.
Post-Condition	User data must be created and saved in the database. All necessary fields must be filled. The system displays the home screen
Typical Course of Events	
Action of Actor	Response of System
1. The user indicates a desire to create account and enter basic information. 2. The user fills one or more input fields.	1. system creates a new user 2. All fields must be saved
Exceptions	1. Basic user data is incomplete. 2. User account already exists

Table 3.1: Use Case 1

Use Case ID	Use Case 2
Use Case name	Login Use Case
Actors	Customers, Workers, Admin
Purpose	Allow users to the system to log in
Overview	The user can enter required fields to login
Type	Primary and Essential
Pre-Condition	Administrators and users must be authorized. Must have registration for that application's account.
Post-Condition	Login is successful and the home screen must be displayed,
Exceptions	User and Password enter incorrectly.

Table 3.2: Use Case 2

Use Case ID	Use Case 3
Use Case name	Checking Location Use case
Actors	Workers
Purpose	Easily get the location of the customer
Overview	A worker can get the location of the customer
Pre-Condition	The worker must register to get location of customer.
Post-Condition	The worker can get the location of the customer after pressing the get location button
Exceptions	User is not authorized

Table 3.3: Use Case 3

Use Case ID	Use Case 4
Use Case name	Service Provider Login use case
Actors	Workers
Purpose	Login to see the requests of customers
Overview	The worker can log in
Pre-Condition	A worker must log in to see the requests of the customer.
Post-Condition	A worker can see requests after login and also see his profile
Exceptions	User is not authorized

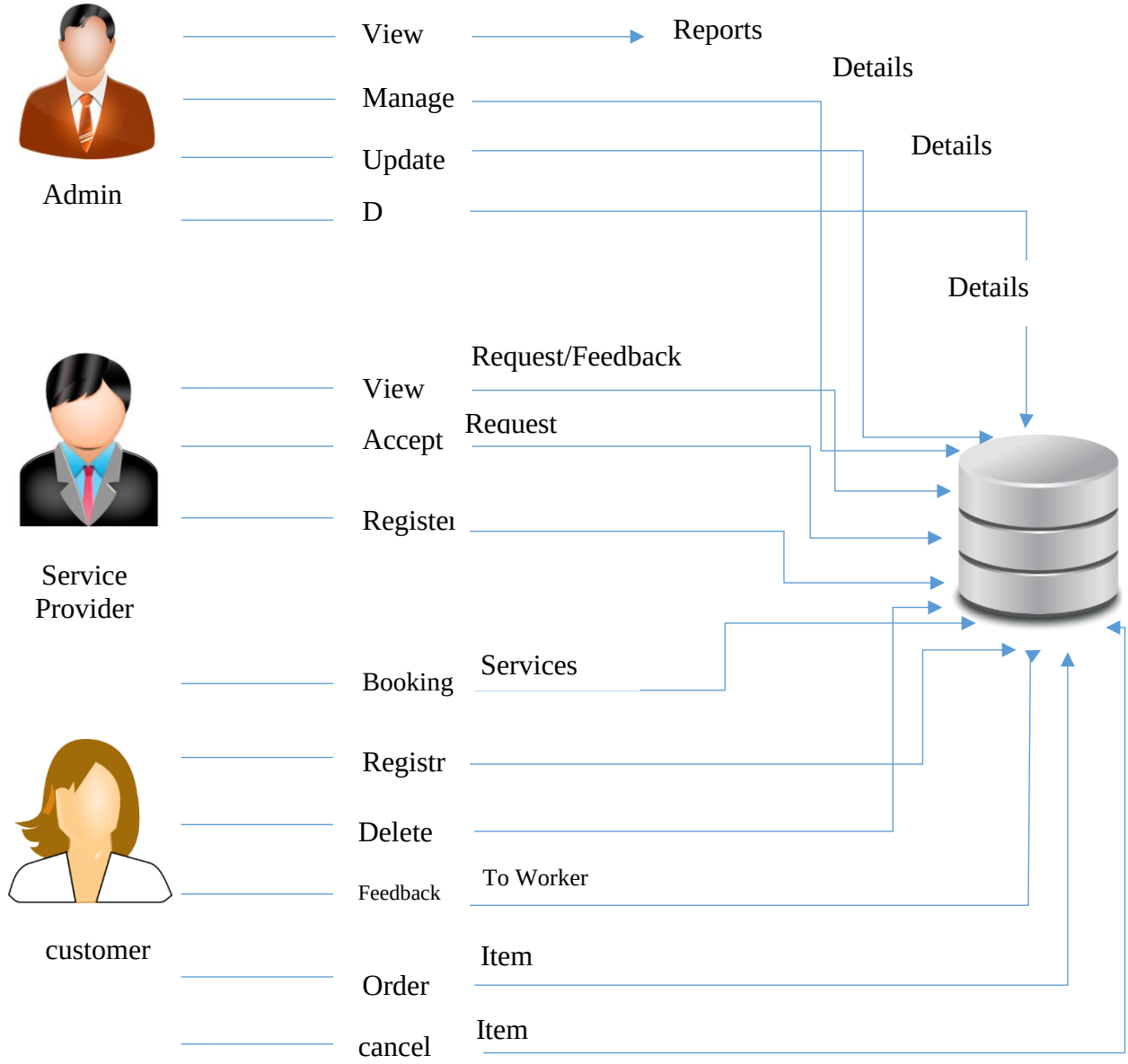
Table 3.4: Use Case 4

Chapter 4
System Design

Chapter 4: System Design

This chapter covers the system analysis made by the developer of the system. This chapter includes feasibility study made by the developer of the system. The chapter also covers the design analysis made by developer of the system which includes details of the use cases, ER Diagram, Dataflow diagram, sequence, and activity diagram which shows the functional and behavioral aspect of the system.

4.1. Architecture Diagram



4.2. Entity Relationship Diagram with data dictionary

This ERD shows the relationship between the entities of the Application. Just like Admin can view the Services, Admin can verify Customer, Customer can view their profile. Service provider View Services.

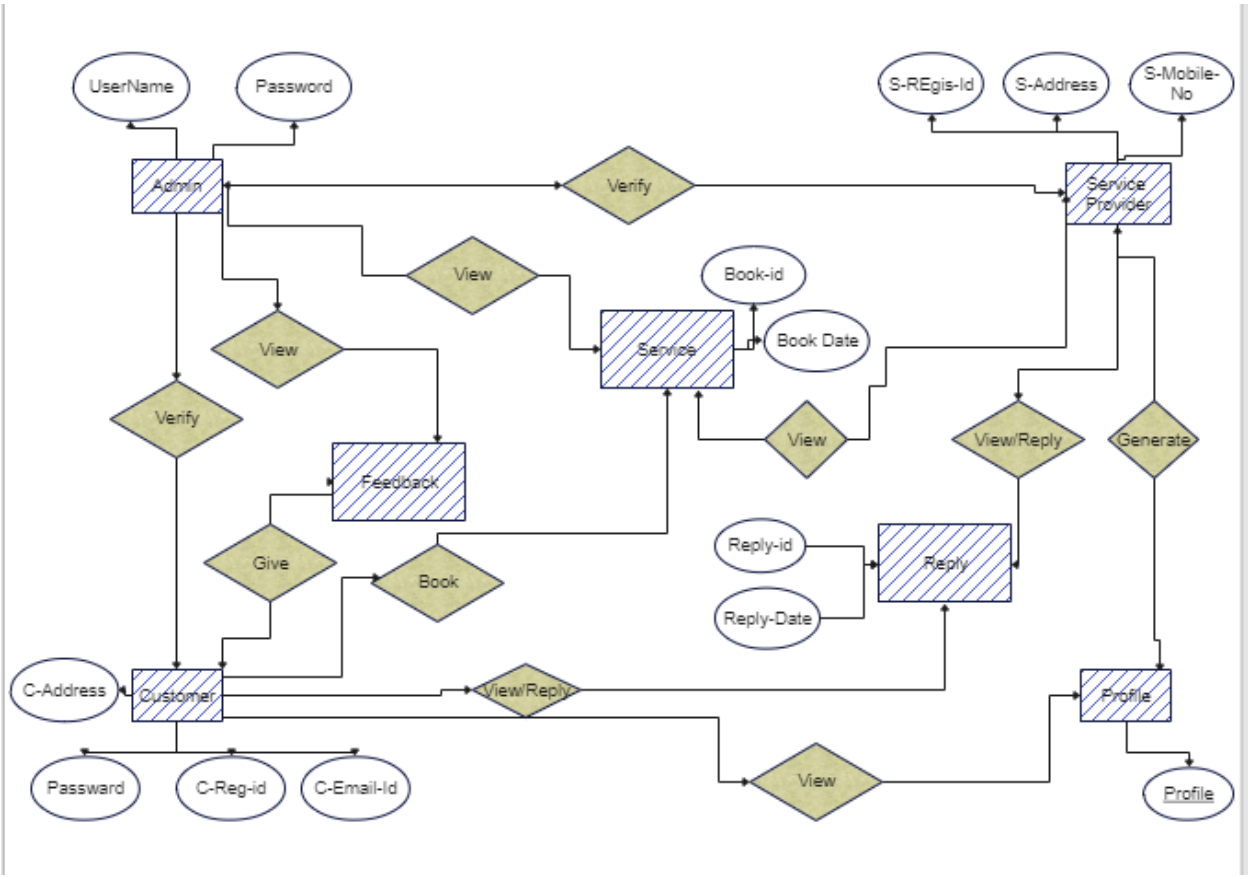


Fig 4.1: ERD

4.3. Class Diagram

In this class diagram we have different classes that are representing its working/functionality and connected with each other through relationship it depends that is one-to-one, one-to-many or many-to-many. We have eight classes that are User, Customer, admin, City, Location, Worker, Service Booking and Service Category.

They have multiple attributes and objects user could register themselves and login through the id that is stored in database admin has all authorities to add users manually, delete and update the data according to situation Workers can also register as well and provide the services to customers or users that they are looking forward .

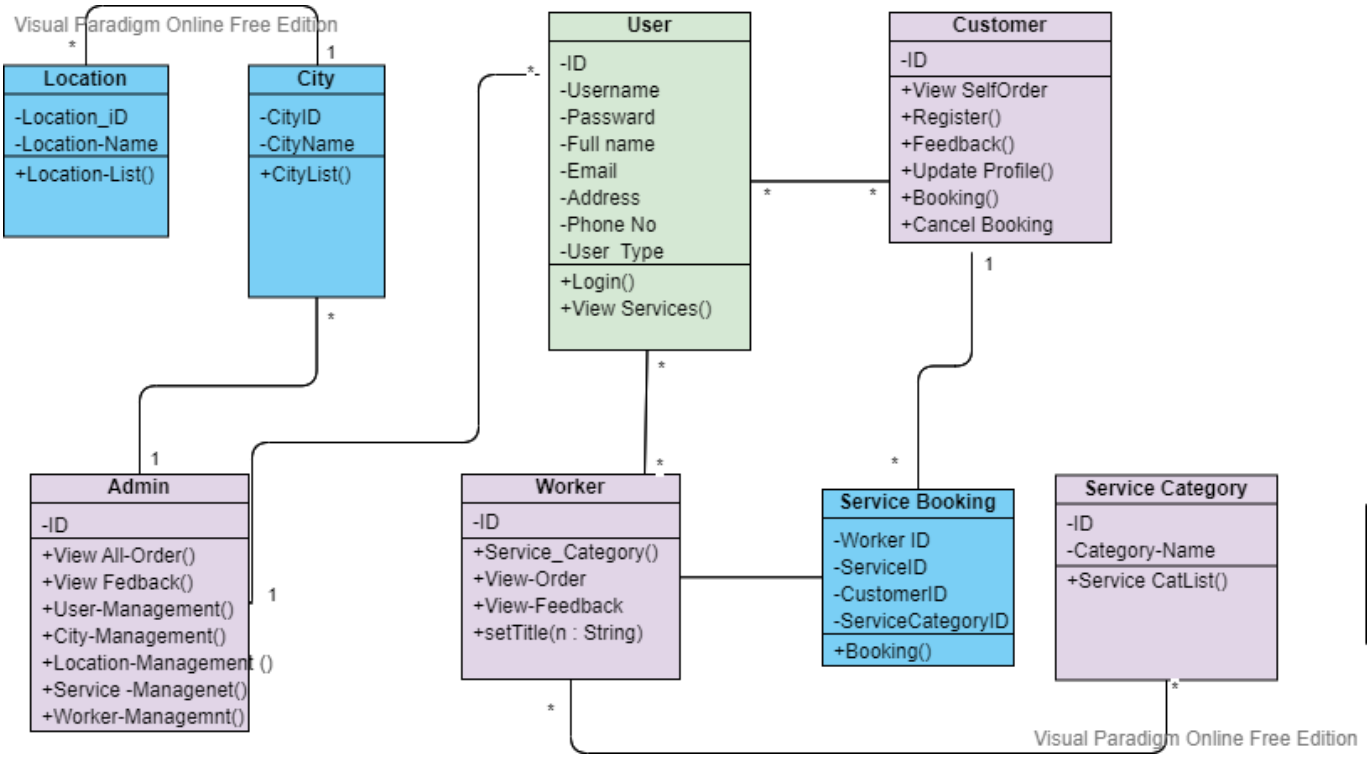


Fig 4.2: Class Diagram

4.4. Sequence / Collaboration Diagram

This is sequence diagram in which app working is explain in diagram When customer open the app first fill the registration form then the details verify and if details are valid the registration is completed.For login username and password is entered and login successful.Place the order service and details check reply and request report then details of report and Give feedback as well check details of that and review that feedback

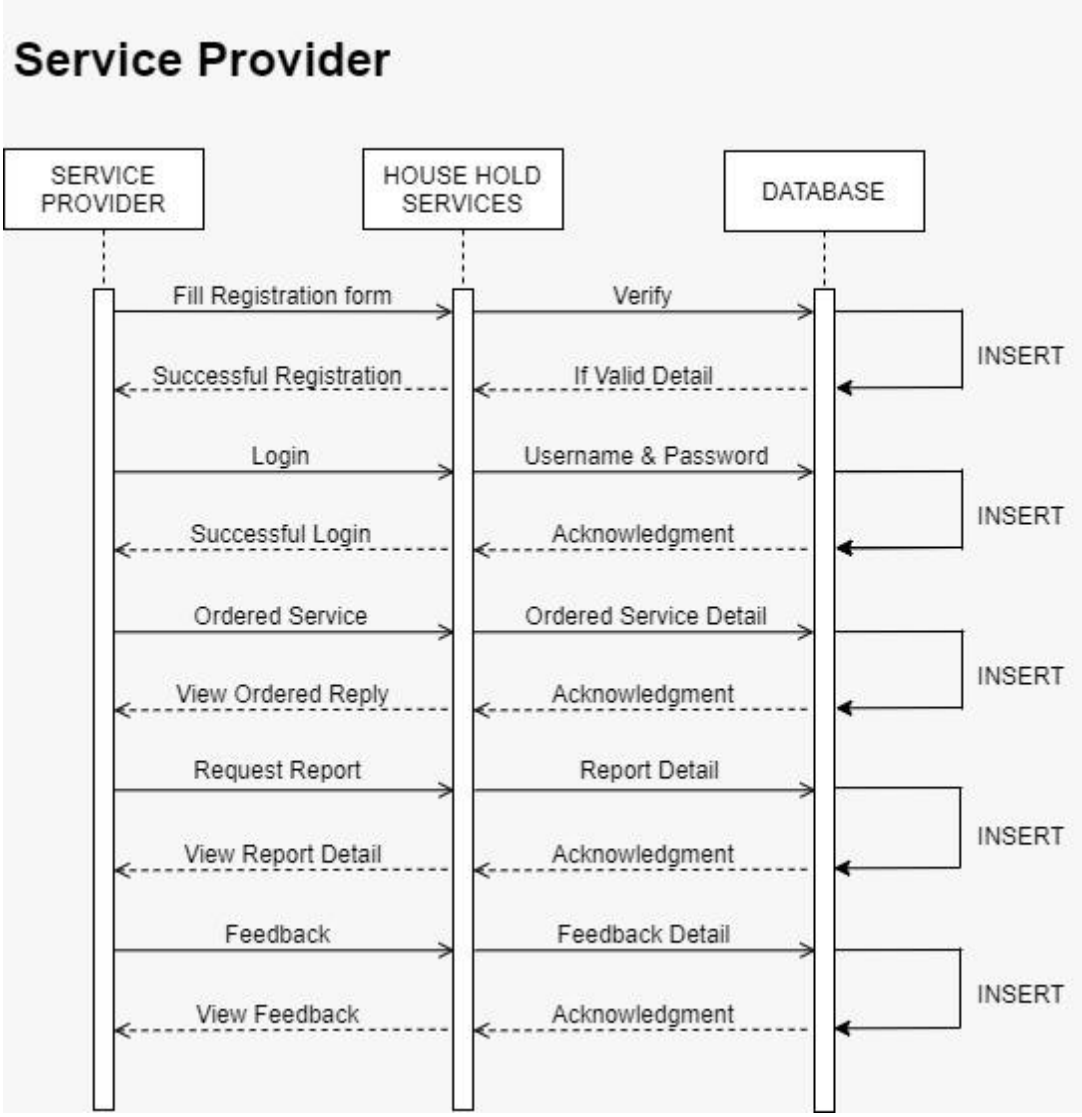


Fig 4.3: Sequence Diagram

4.5. Activity Diagram

This is an Activity diagram of Service provider that will give feedback after login and view services ,view pending services and new pending services. check the QR code if its valid then provide service if wrong then again view new pending services and check QR Code validity the provide service.

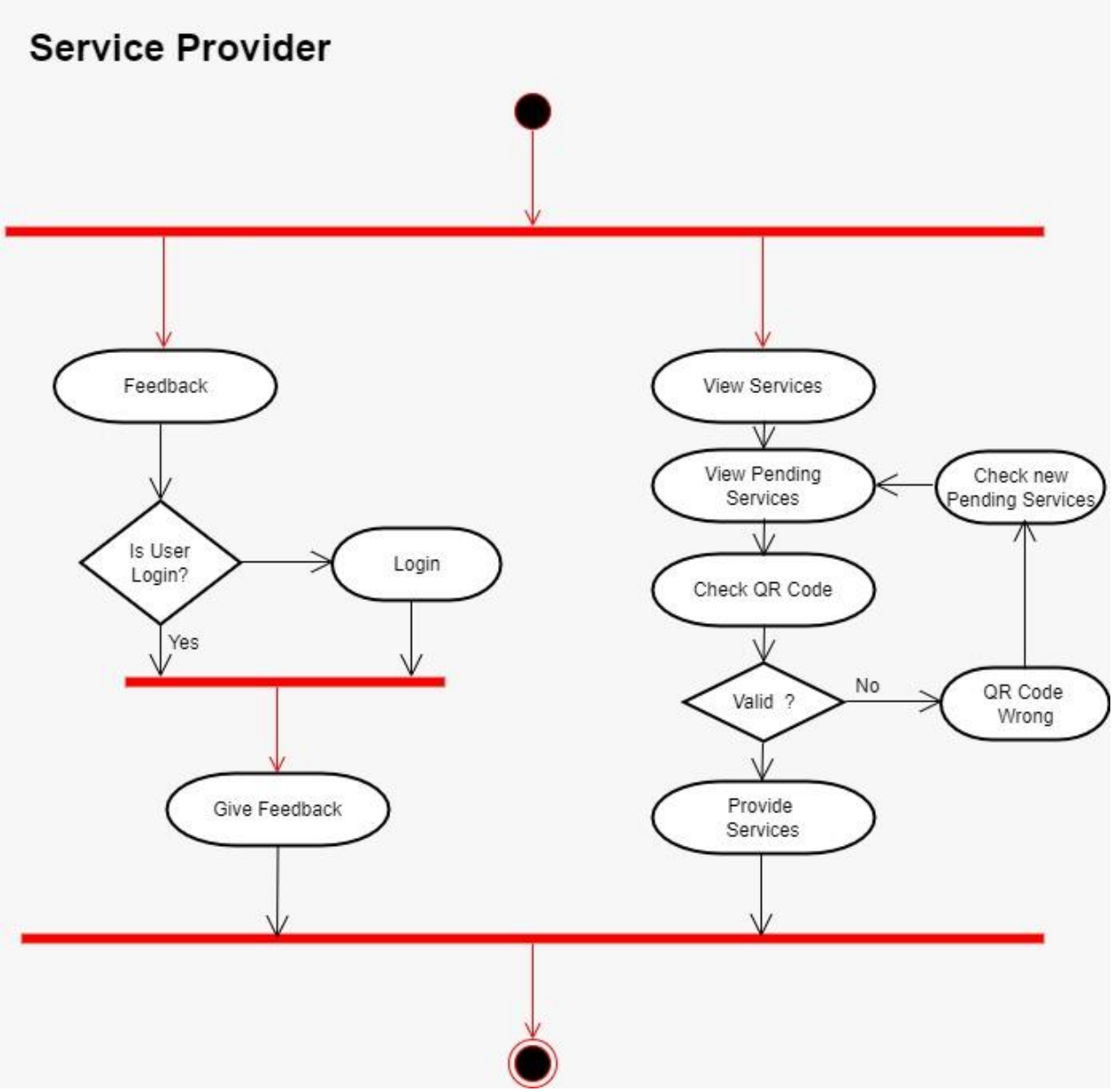


Fig 4.4.1: Activity Diagram

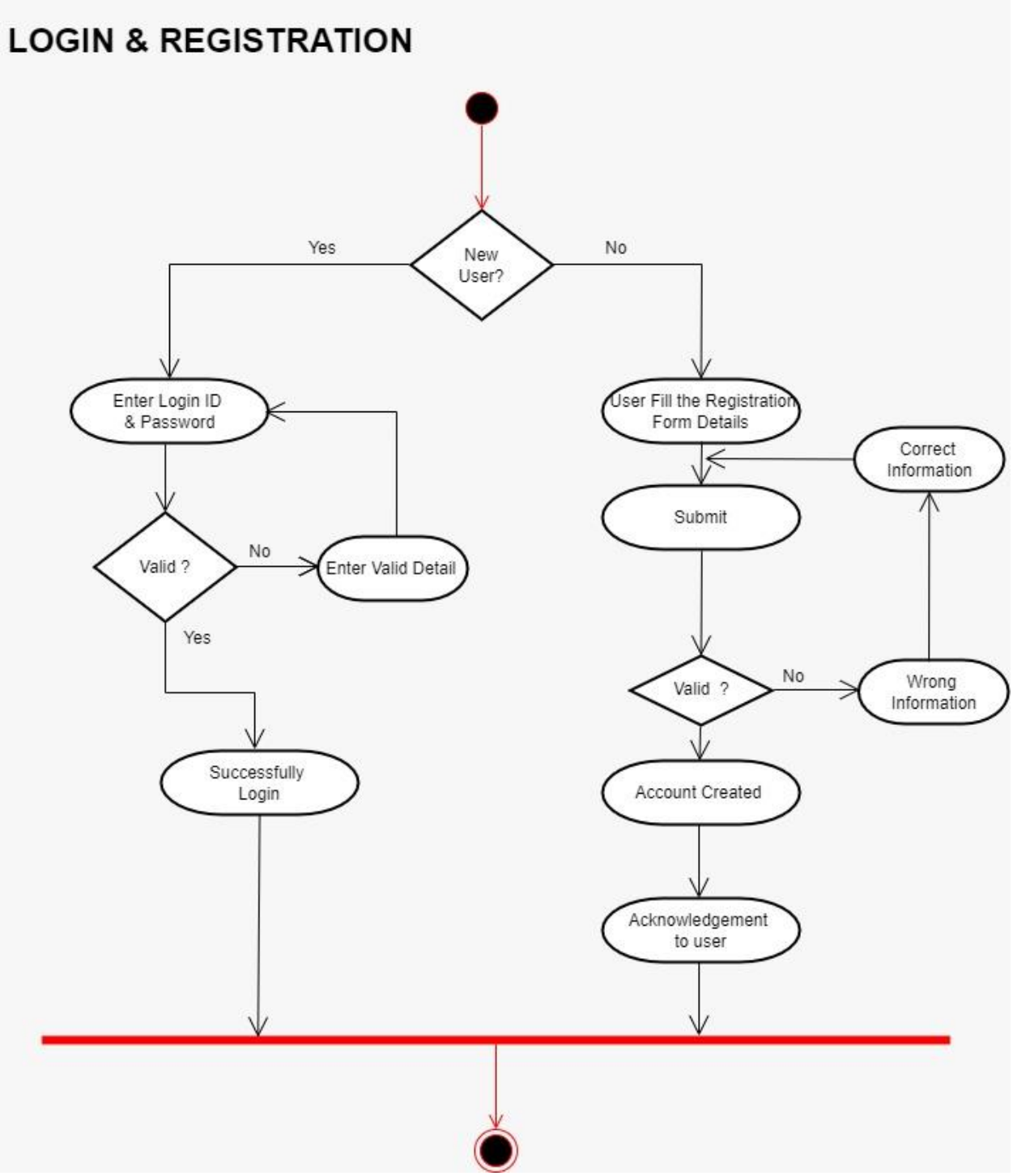


Fig 4.4.2 :Activity Diagram

This is and Activity diagram of Login and Registration in which user is new then fill form for details and submit if valid account created wrong again same procedure and after creation user acknowledged. User enter Id and password if valid login Successful otherwise again enter details.

4.6. State Transition Diagram

STD describe the behavior of the application just like if you click on register you the behavior of app is First time visiting If you click on Login the behavior is Already have account.

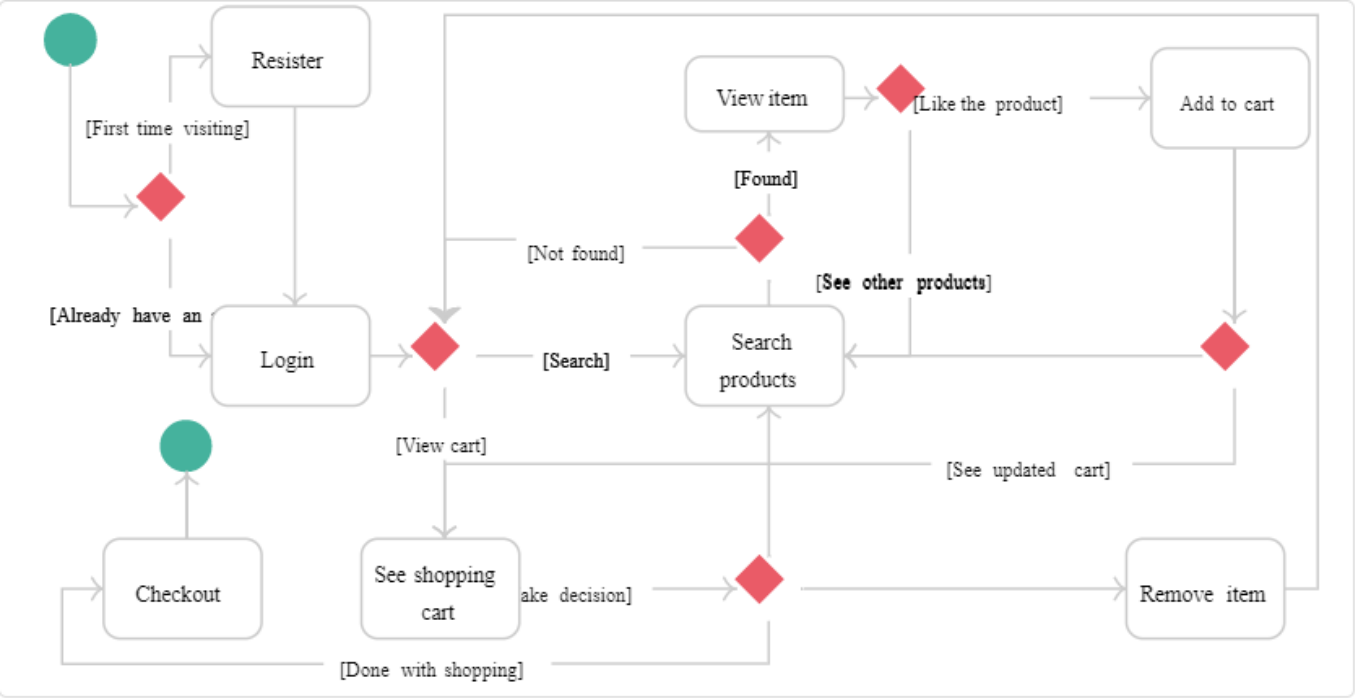


Fig 4.5 : STD Diagram

4.7. Component Diagram

Component Diagram are used to help model implementation details and double check that every function is done according to plan.

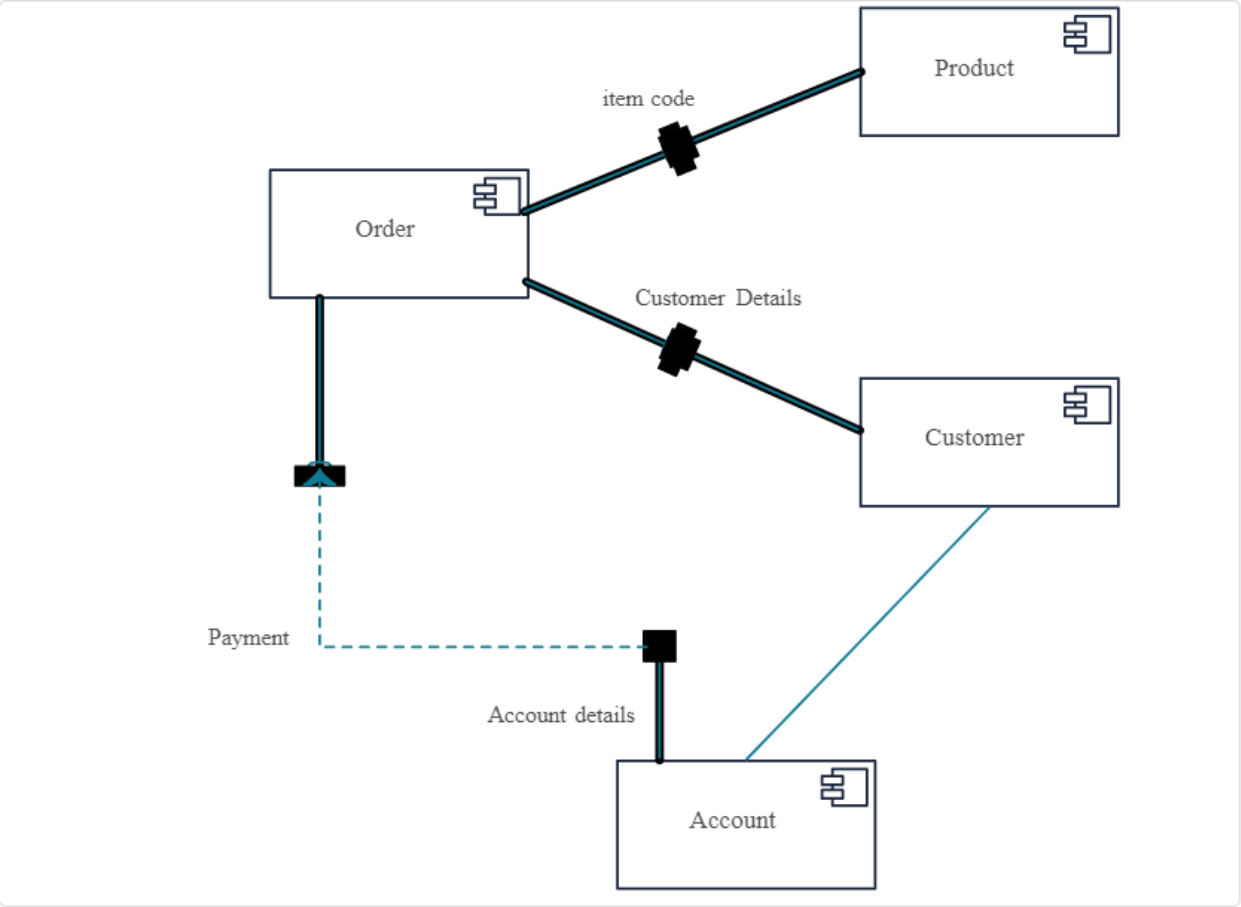


Fig 4.6 :Component Diagram

4.8. Deployment Diagram

This an Deployment diagram this is after the system is ready to work and the clients can use the application and perform operations like three users are using at the same time and doing online shopping and payment procedure will come and the database is connected to both of them for storing transactions and order details.

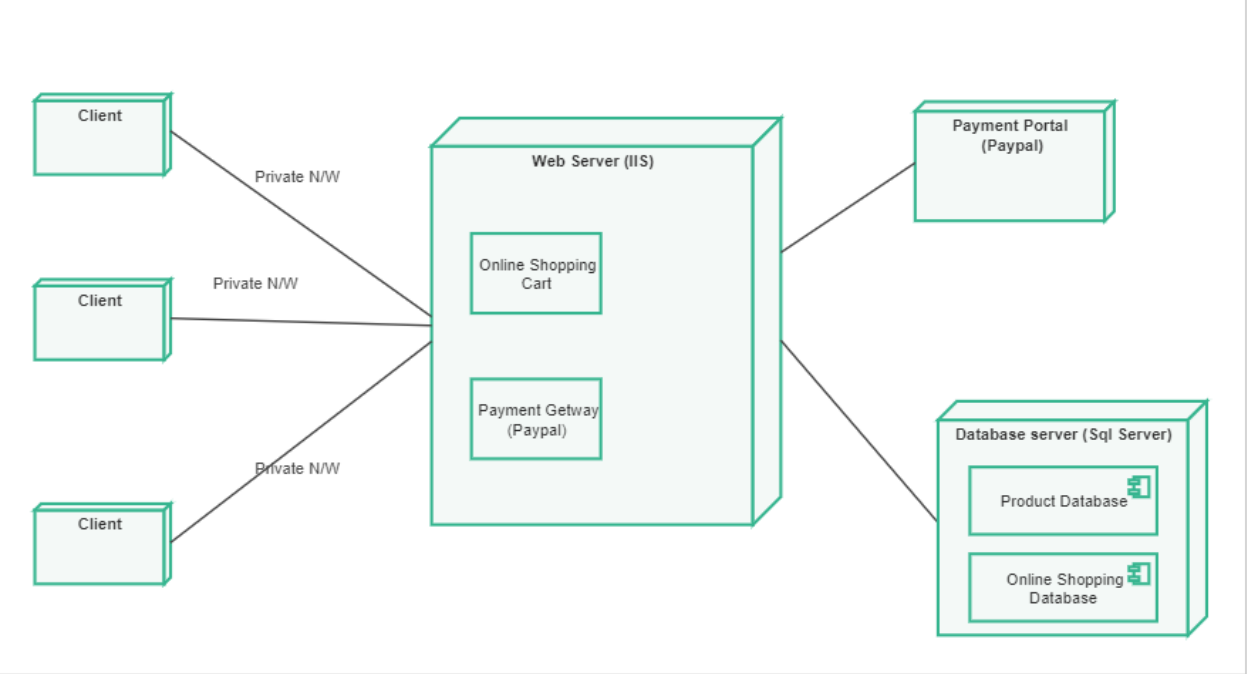


Fig 4.7: Deployment Diagram

4.9. Data Flow diagram

This is an data flow diagram in which we have 1 to 5 levels that are representing service registration, login, view booking, reply booking and the report details at the end .

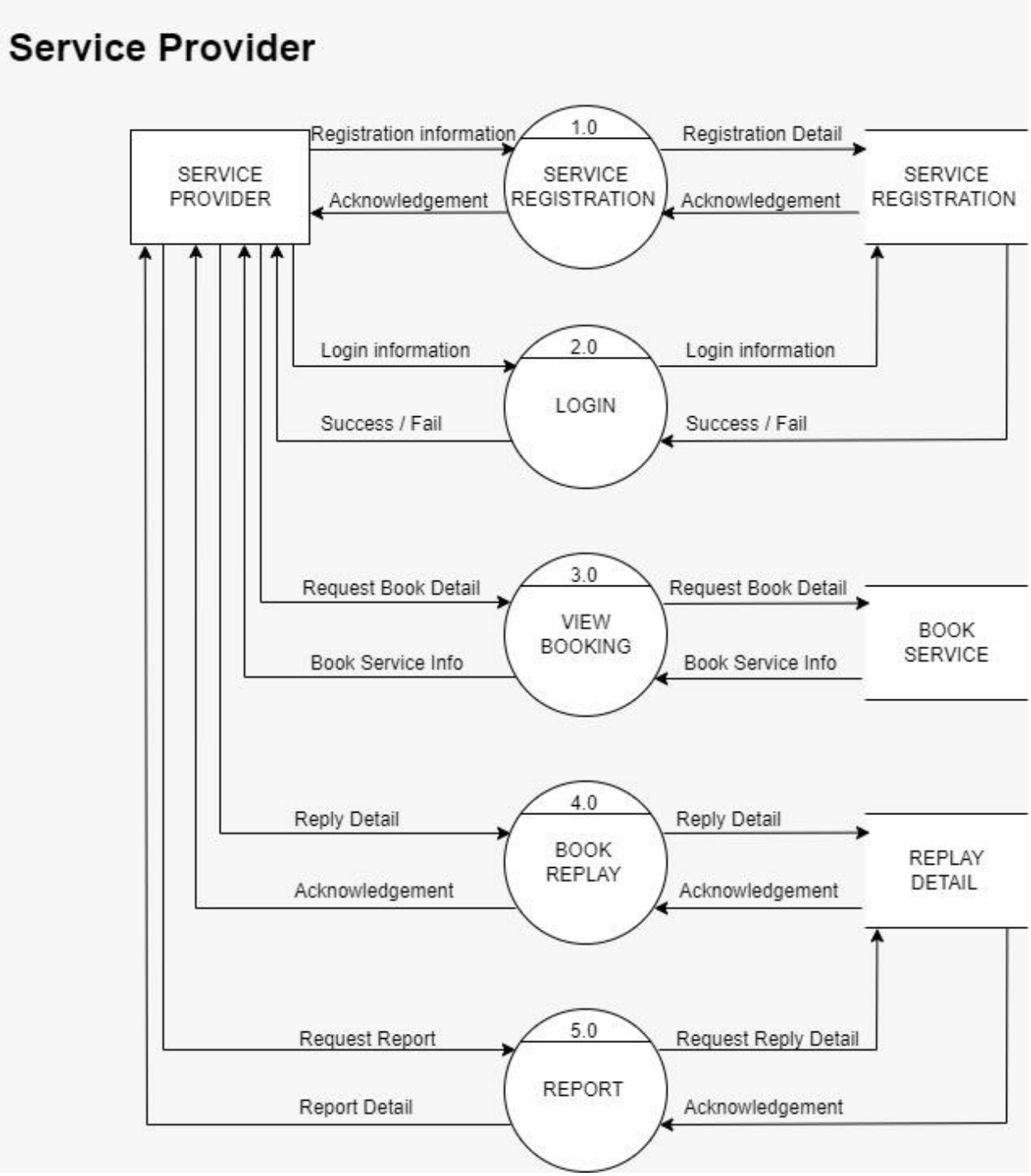


Fig 4.8: Data Flow Diagram

Chapter 5
Implementation

Chapter 5: Implementation

Implementation phase is the process of converting a system specification into an executable system. A software design is a description of the structure of the software to be implemented, data models, interfaces between system components, and maybe the algorithms used.

Software implementation begins with the effort of software fabrication. Fabrication is an act of making something. Software fabrication involves programmatic design, source code editing or programming, and testing of each software unit. This series of technical tasks represents how software procedures, routines, modules, objects, or graphical models are produced. The result of software fabrication should be a documented unit of source code that has been tested against its structural unit specification. This source code (software unit) is then available to be assembled, integrated, and compiled with other fabricated software elements to craft larger software components. These integrated software components are tested against structural component specifications to ensure their correctness. This assembly, integration, and testing series of events continues to generate larger, more complex software components. Software integration progresses until a completely integrated and tested software configuration item is realized and available for acceptance testing.

5.1. Important Flow Control/Pseudo codes

4. Create classes for admin data ,Service provider and customer data.
5. Initialize variables that stores admin data, Service provider and customer data.
6. Create Objects for admin and customer classes that access the admin data ,Service provider and customer data.
7. initialize two vector array that holds the customer data ,Service provider and admin data.

5.1. Components, Libraries, Web Services and stubs

Components:-

- Local Server
- Admin Software System
- Employee Software System
- Web-based back-end server

Libraries:-

- Logging Libraries
- JSON Parsing libraries
- Unit Testing Libraries
- General Purpose Libraries
- HTTP Libraries
- Database Connection Pool Libraries
- PDF Libraries
- Date and Time Libraries
- Collection Libraries
- Email APIs
- JDBC Troubleshooting Libraries

5.2. Deployment Environment

The development environment of the management system is a application which is deployed at a online server and online employee system. In computer program and software product development, the development environment is the set of processes and programming tools used to create the program or software product. The term may sometimes also imply the physical environment

5.3. Tools and Techniques

Mobile application which is developed using latest tools and technologies. To implement these features in our application, we will use React Native. For back-end functionality, we will use Apache in order to provide connectivity between the application and the database. The database will be designed on MySQL

5.4. Best Practices / Coding Standards

8. Coding Conventions
9. ● Use the default Code Editor settings (smart indenting, four-character indents, tabs saved
10. as spaces).
11. ● Write only one statement per line.
12. ● Write only one declaration per line.
13. ● If continuation lines are not indented automatically, indent them one-tab stop (four
14. spaces).
15. ● Add at least one blank line between method definitions and property definitions.
16. ● Use parentheses to make clauses in an expression apparent.
17. ● Use a try-catch statement for most exception handling.
18. Commenting Conventions
19. ● Place the comment on a separate line, not at the end of a line of code.
20. ● Begin comment text with an uppercase letter.
21. ● End comment text with a period.
22. ● Insert one space between the comment delimiter (//) and the comment text.
23. ● Use block commenting for multiple lines at once /*commenting the block*

5.1. Version Control

Git hub version control technique will be used for version control of our project

Chapter 6
Testing and Evaluation

Chapter 6: Testing and Evaluation

Software testing is a critical element of software quality Assurance and represents the ultimate review of specification, design and code generation. Testing is an internal part of any system or project. If a system is implemented without being tested it may lead to an erroneous working and dissatisfaction on part of the customer. It will also prove disastrous to the reputation of the organization or the person who developed the system and lead to loss in business.

6.1 Use Case Testing

Test case id	**Test case name**	**Input**	**Expected Output**	**Actual Output**	**Observation**
1	User login	Email id and Password	Homepage open	Homepage open	Pass
2	User login	Email id and Password	Homepage open	Error message “Incorrect Email id or password”.	Fail
3.	User Status	1.Active 2.Inactive	Access to homepage	When verified through Database	Pass
4.	User Status	1.Active 2.Inactive	Access to homepage	When not verified through Database	Fail
5	Apply for the services	Apply for the services	Successfully apply for the services	Apply for the services successful	Pass
6	Apply for the services	Apply for the services	unsuccessfully apply for the services	Apply for the services unsuccessful	Fail
7	Generate the customer details	Generate the customer details	Successfully generate the details	Generated details success	Pass
8	Generate the customer details	Generate the customer details	unsuccessfully generate the details	Generated details unsuccessful	Fail

Table 6.1: Use Case Testing

6.2 Validation testing

The user must login to the system with his/her unique login name and password. The user must enter all mandatory fields. If he/she fails to do so then a warning message is issued.

6.3 Functional Testing

The entire system was divided into sub modules. Adding/Updating of user Information in the database is done.

6.4 Navigational testing

The system was tested so that all the pages are properly accessible with their respective links. To uncover the errors in the system we have done testing as follows:

Input Checking:

In this phase we tested the validation process only. When users enter the data in the given text box or in grids, proper input format is checked. If entry required numeric data user is bounded to enter only numeric. If text (alphanumeric)data, then user is bounded to enter text data only also check for null values. Like this all entries of all input areas are tested.

Condition Testing:

Condition testing is a method that exercises the logical condition contained in program module. All relational statements were individually examined and tested. Extreme case values are given for testing.

Loop Testing:

Loops are cornerstones for the vast majorities of all implementation in software. Each loop is examined separately. Its end point values were given and terminating condition each case tested.

Output Testing:

First step of testing is checking how friendly it is. Then its accuracy is checked, that is whether it can be present all relevant information, it can report missing less, data etc.

Acceptance Testing:

In this type we run the system live data by actual user.

6.5 Unit testing

We test the smallest testable unit of an application. It is done during the coding phase by the developers. To perform unit testing, a developer writes a piece of code (unit tests) to verify the code to be tested (unit) is correct.

6.6 Integration testing

We check the combinations of different units, their interactions, the way subsystems unite into one common system, and code compliance with the requirements. Related: Types of Software Testing – Everything You Need to Know to Test Your Software From Beginning to End.

6.7 Performance testing

We ensures software applications to perform properly under their expected workload.

6.8 Stress Testing

In this we to find behavior of the application under extreme load. Application's quality attributes determined during stress testing- Breaking point Robustness Recoverability Stability,

Chapter 7

Summary, Conclusion and Future Enhancements

Chapter 7: Summary, Conclusion & Future Enhancements

7.1. Project Summary

The main aim of this Project is to provide the facilities for all the members who is the related from this system like Admin, user ,service provider etc. The end users will be able to use this Software Report as a "test" to see if the constructing team will be constructing the system to their expectations. If it is not to their expectations the end users can specify how it is not to their liking and the team will change the Software Requirements Specification to fit the end users' needs. App user will get a quotation for their job and then they can pick the accurate match. You can easily find any type of Services simply You need to pick from more than 15+ services and book any type of services on the app based on pre-approved costs. A trusted service provider will be shipped to your home at the same time which allocated. It is a safe way because all the service providers are stored in the way. So every history stored and a user can view this from their login panel. This app is a hassle-free experience for getting your work done. Even in-app call & message history are also stored in this interface.

7.2. Achievements and Improvements

[The primary objective of the online system for household services is about delivering the home services at the door step just by one click. This paper 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 an ingenious web based system or a mobile application. 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 and to develop an identical mobile application for opting the services. To design a interactive User Interface for seeking

services on the go. To provide a secured online payment gateway for service seekers. To acknowledge the conformation of services opted by the users

7.3. Critical Review

Project complete its all requirement by completing all goal and objective of the project. we insure we added all functionalities of the project.

7.4. Lessons Learnt

We learn how to work in team and complete project in time by fighting with different difficulties.

7.5. Future Enhancements/Recommendations

In future we make application to work more smoothly according to our user requirement.

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Reference and Bibliography

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