**An INTERNSHIP PROJECT REPORT on
CLIENT APP DEVELOPMENT – Kaigal Services**

Submitted in partial fulfilment of the requirements of the degree

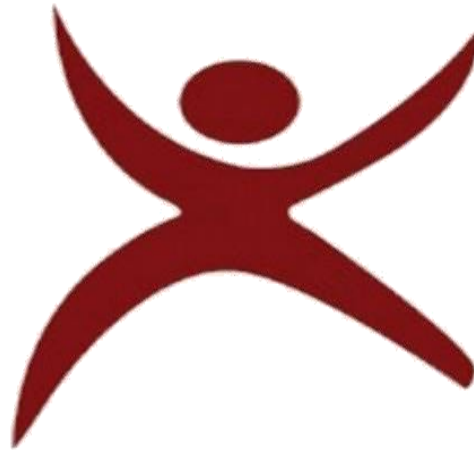**Bachelor of Technology**

In

COMPUTER SCIENCE AND ENGINEERING

By

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Under the supervision of

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING,

**RAJIV GANDHI UNIVERSITY OF KNOWLEDGE
TECHNOLOGIES, RK VALLEY**

BONAFIDE CERTIFICATE

This is to certify that the project report entitled **CLIENT APP DEVELOPING – IN KAIGAL INDIA SERVICES PVT.LTD** submitted by M SANJAY BHARGAVA (O171078) in partial fulfillment of the requirement for the award of Bachelor of Technology in Computer Science and Engineering is a record of bonafide project work carried out under my supervision during the academic year 2022-23.

I am indebted to **Mr. K. Vinod Kumar**, my project guide for conscientious guidance and encouragement to accomplish this project.

I am extremely thankful and pay my gratitude to SATYANANDARAM N,(I/C) HOD CSE, for his valuable guidance and support on the completion of this project.

The report hasn't been submitted previously in part or in full to this or any other university or institution for the award of any degree.

Mr. K. Vinod Kumar,   Mr. N. Satyanandaram,
Assistant Professor,   Head of Department,
Department of CSE,   Department of CSE,
RGUKT, RK Valley   RGUKT, RK Valley.

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING,
RAJIV GANDHI UNIVERSITY OF KNOWLEDGE TECHNOLOGIES,
RK VALLEY, APRIL 2023.**

CERTIFICATE

This is to certify that the project report entitled **CLIENT APP DEVELOPMENT - KAIGAL INDIA SERVICE PVT.LTD (INTERNSHIP REPORT)** submitted by **M SANJAY BHARGAVA (O171078)** in partial fulfillment of the requirement for the award of Bachelor of Technology in Computer Science and Engineering is a record of bonafide project work carried out under my supervision during the academic year 2022-23.

The report hasn't been submitted previously in part or in full to this or any other university or institution for the award of any degree.

Mr. K. Vinod Kumar ,
Assistant Professor,
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Head of Department,
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DECLARATION

I declare that this written submission represents my ideas in my own words and where others' ideas or words have been included, I have adequately cited and referenced the original sources. I also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in my submission. I understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

Signature

M SANJAY BHARGAVA,
ID: O171078

Date:_____

ACKNOWLEDGEMENT

I am highly indebted to **Mr. K. VINOD KUMAR** for his guidance and constant supervision as well as for providing necessary information regarding the project and also for their kind cooperation, encouragement and their support in completing the project.

I would like to express my special gratitude and thanks to our COMPUTER SCIENCE AND ENGINEERING branch **H.O.D Mr.N. SATYANANDARAM** and **Director of RGUKT RK VALLEY Prof. K.SANDHYA RANI** for giving me such attention and time.

I have taken efforts in this project. However, it could not have been possible without the kind support and help of many individuals and RGUKT.We would like to extend my sincere thanks to all of them.

My thanks and appreciation also go to my colleagues in developing the project and people who have willingly helped me out with their abilities.

With Sincere Regards,

M SANJAY BHARGAVA

Date:_____

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ABSTRACT

The Client App is a Android based Client Registration app intended for Client Registration. The main objective of this app is to make it interactive and its ease of use using its Pages App behavior. It would make the client to register and get the employees much easier. Here client can also post the jobs that are available in there company. Client easily advertise their there product by the client app. Company also accept payments through this client app.

The app also provides filter to select employee to hire for their company they also add the employees to the cart and get their contact details to talk to them directly. The main emphasis lies in providing a user-friendly interface for effectively showing the desired results and filtering the employees

CHAPTER 1

INTRODUCTION

After covid so many uneducated people lost their jobs they are unemployed . The goal of this app is to develop a android based app to get the available jobs form the companies and let people know blue coller jobs available in the company and get employed

It very easy to use the app and register the company and post the available job openings in their company and get the employees. For running a company man power is much needed is not easy to the man power most of the companies will depend on the contractors to get the man power but after developing this app things has been changed they get the employees in easy way just by posting the jobs available in their company and number of employees they need.

This App provides users with a good interface and helps to get employees.

1.1 Motivation

The main motivation of the application is to learn and apply the fundamentals of building an ecommerce application using MERN stack in web development. To provide local vendors with an easy and efficient maintenance of the ecommerce application.

1.2 Features

- Login and Registration System
- Adding and editing of products
- Adding and editing of users
- Retrieving all type of functional data using MongoDB database
- Filter products using the category

CHAPTER 2
SYSTEM ANALYSIS

Analysis is the detailed study of the various operations performed by a system and their relationships within and outside of the system. A key question is: What must be done to solve the problem? One aspect of analysis is defining the boundaries of the system and determining whether or not the candidate system should consider other related systems During analysis, data are collected on the available files, decision points, and problems handled by the present system.

2.1 Existing System

- Kaigal Services is a Product Based Company which provides Blue Coller Jobs to the people around Tamil Nadu State.
- Still now we are having very less software services for getting Blue Coller Jobs.So our aim is to create a communication medium between the people and the organizations .

2.2 Proposed System

- We developed the Client App to register the companies that needed the employees .Here they can register and get the employees based on requirement.
- Here they can advertise their product to and easily get the employees.

CHAPTER 3

REQUIREMENT ANALYSIS

The project involved analyzing the design of a few apps so as to make the app more users friendly. To do so, it was really important to keep the navigations from one screen to the other at the same time reducing the amount of typing the user needs to do. This also includes maintaining the flow of the application.

3.1 Requirement Specification

3.1.1 Functional Requirements

- Zeplin is used interact with the website
- SQLAlchamy to store and retrieve the information

3.1.2 Hardware Requirements

- Processor : Intel i5 or above
- Memory : 4GB RAM or above
- Disk Space : Minimum 4 GB for Database usage
- CPU : 64 bit architecture

3.1.3 Software Requirements

- Operating System : Windows 7 and Above, Linux/Ubuntu 14 and above
- Packet Management Tool : Node Package Manager (NPM)
- FrontEnd Technologies : HTML, CSS, Angular CLI, Type Script, Ionic
- Backend Technologies : Fast API, SQLAlchamy
- Database : SQLAlchamy
- Database ORM : AWS

3.2 Technologies Used

3.2.1 HTML[1]

It is a markup language for formatting and displaying web documents and web pages. It gives basic structure to the webpage without any styling. HTML elements tell the browser how to display the content. It can be assisted by technologies such as Cascading Style Sheets and scripting languages such as JavaScript for styling and functionality

3.2.2 CSS[2]

It gives styling for the web pages created by HTML. It gives ' look and feel ' to the website.

3.2.2.1 Types of CSS

- Inline CSS (Using styles as attributes in html elements)
- Internal CSS (Including a separate Style tag in html document)
- External CSS (Using external file for styling)

3.2.3 Typescript[3]

Typescript is used to develop interactive web applications. Used to develop Dynamic websites. JavaScript is the programming language of the Web. Responsible for performing actions in a website.

3.2.4 Ionic

Ionic is used to convert the android app to IOS easily . We need to develop the app in Ionic way.

3.2.5 Angular CLI[4]

Angular is a platform and framework for building single page applications using HTML and Typescript. Angular is written and Typescript. It implements core and optimal functionality as a set of typescript.

3.2.6 Fast API[5]

FastAPI is a modern, high-performance web framework for building APIs with Python based on standard type hints. It has the following key features.

3.2.7 SQLAlcamy[6]

Express SQLAlchemy is a library that facilitates the communication between Python programs and databases. Most of the times , this library is used as an object Relational Mapper (ORM) tool that transulate Python classes to tables

CHAPTER 4

SYSTEM DESIGN

4.1 Use Case Diagram

The DFD is also called a bubble chart diagram. It is a simple graphical formalism that can be used to represent a system in terms of the input data to the system, various processing carried out on these data, and the output data is generated by the system.
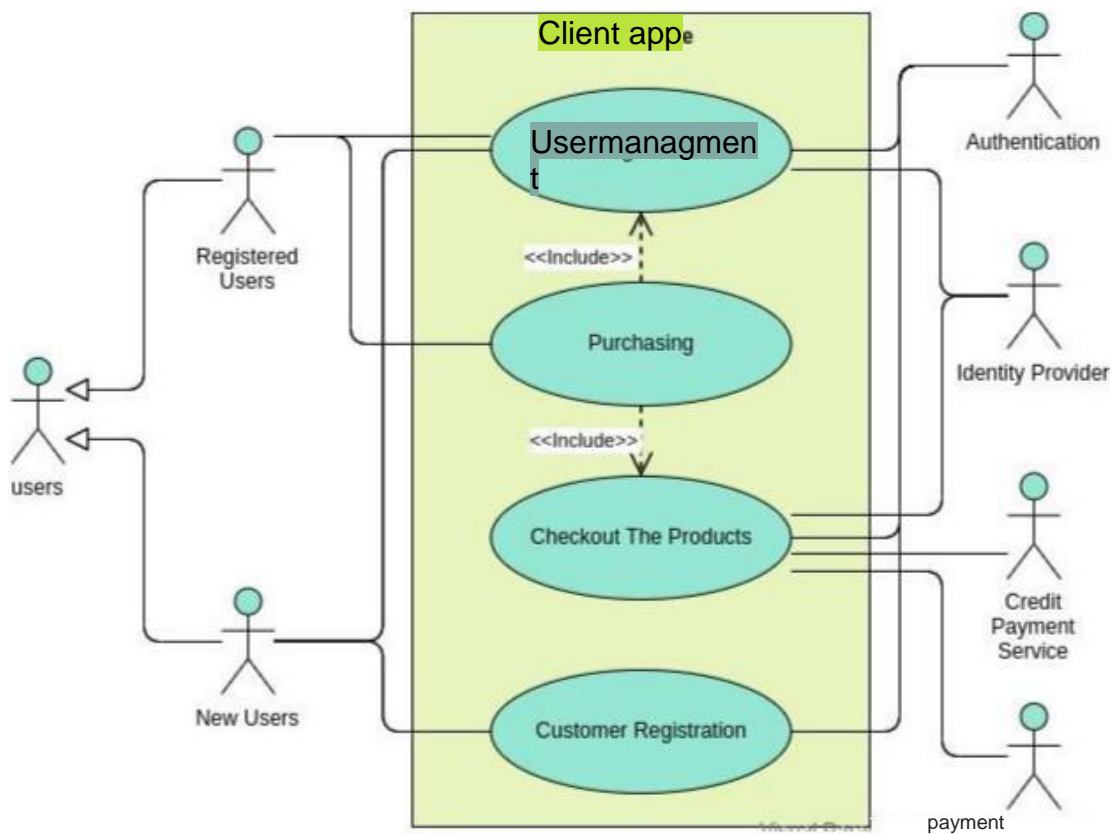

Figure 4.1 Use Case Diagram

4.2 Class Diagram

Class diagram is a static diagram. It represents the static view of an application.Class diagram is not only used for visualizing, describing, and documenting different aspects of a system but also for constructing executable code of the software application.Class diagrams are the only diagrams which can be directly mapped with object-oriented languages and thus widely used at the time of construction.
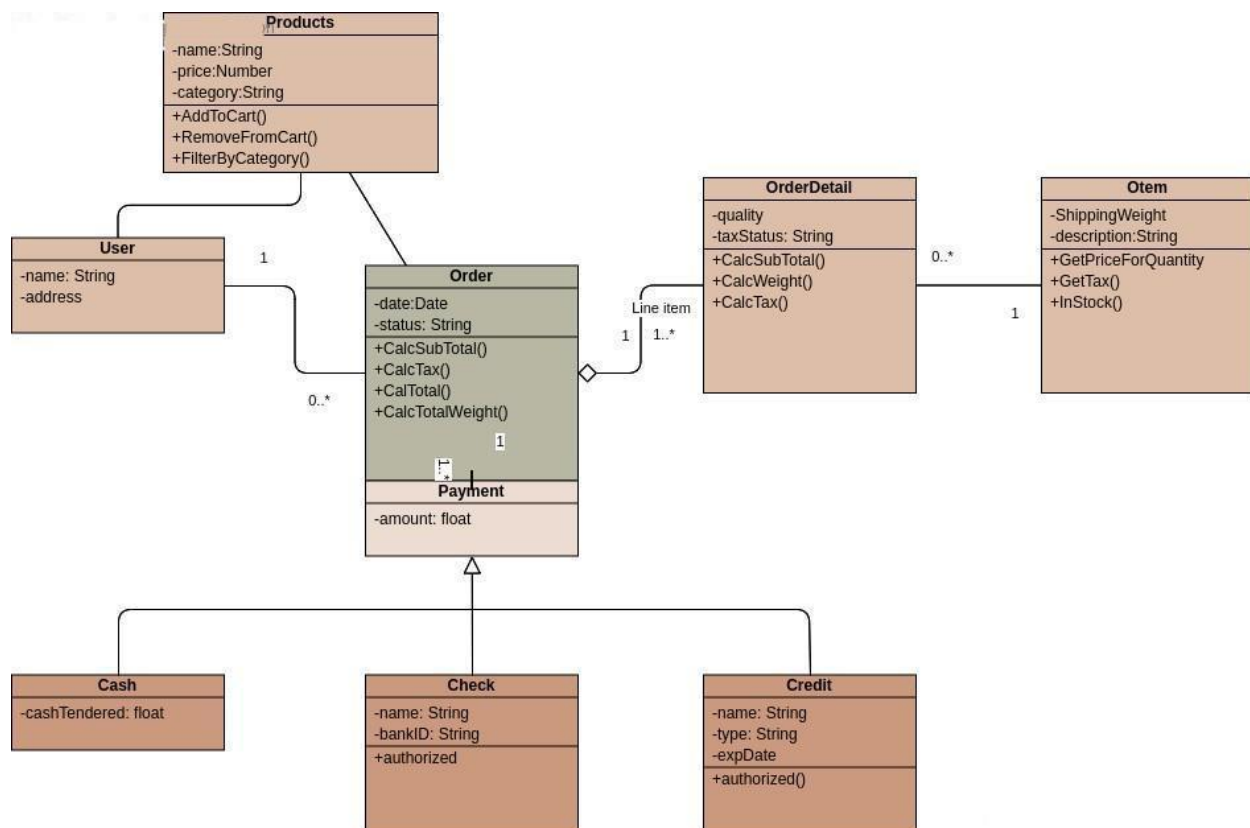

Figure 4.2 Class Diagram

4.3 Sequence Diagram

A sequence diagram simply depicts interaction between objects in a sequential order i.e. the order in which these interactions take place. We can also use the terms event diagrams or event scenarios to refer to a sequence diagram. Sequence diagrams describe how and in what order the objects in a system function. These diagrams are widely used by businessmen and software developers to document and understand requirements for new and existing systems.
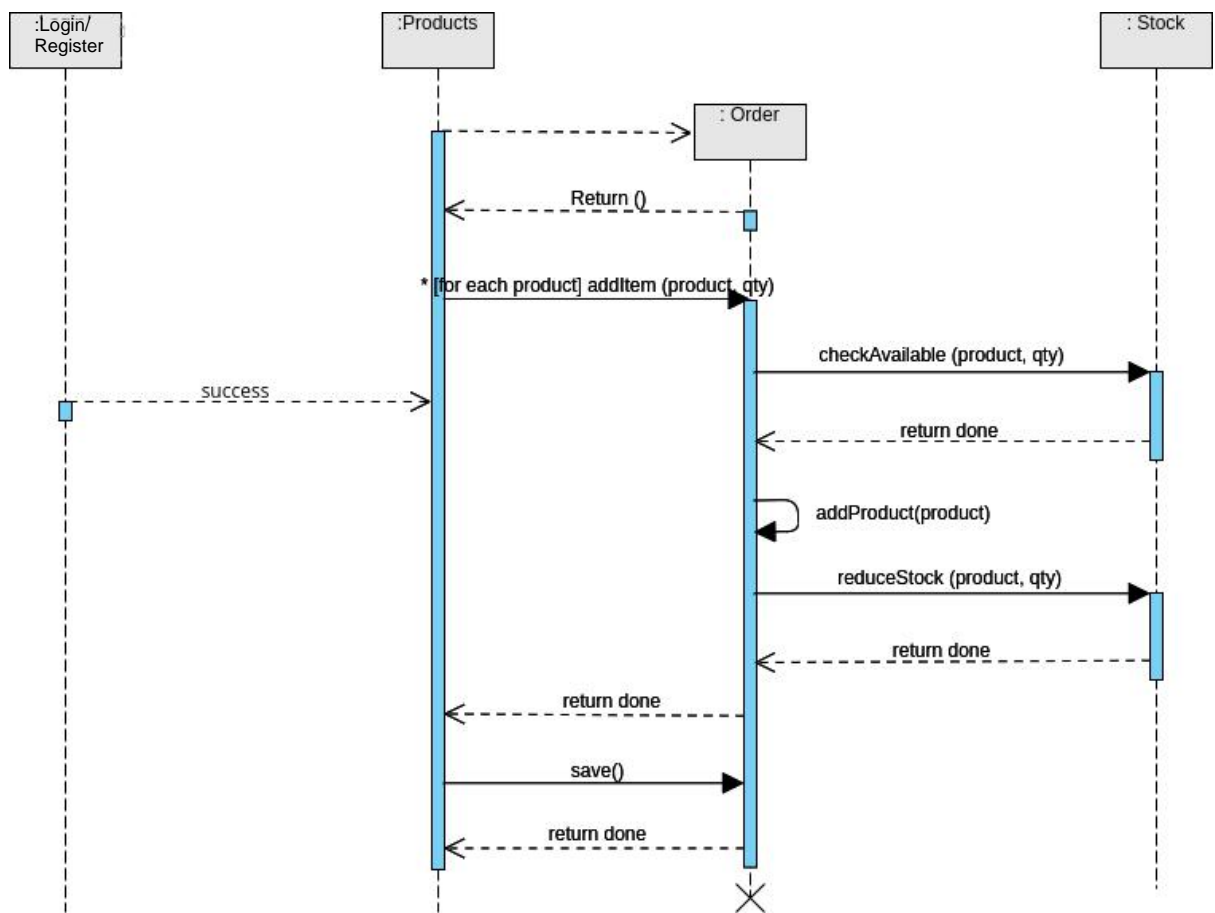

Figure 4.3 Sequence Diagram

4.4 State Diagram

A state diagram is used to represent the condition of the system or part of the system at finite instances of time. It's a behavioral diagram and it represents the behavior using finite state transitions. State diagrams are also referred to as State machines and State-chart Diagrams. These terms are often used interchangeably. So simply, a state diagram is used to model the dynamic behavior of a class in response to time and changing external stimuli.
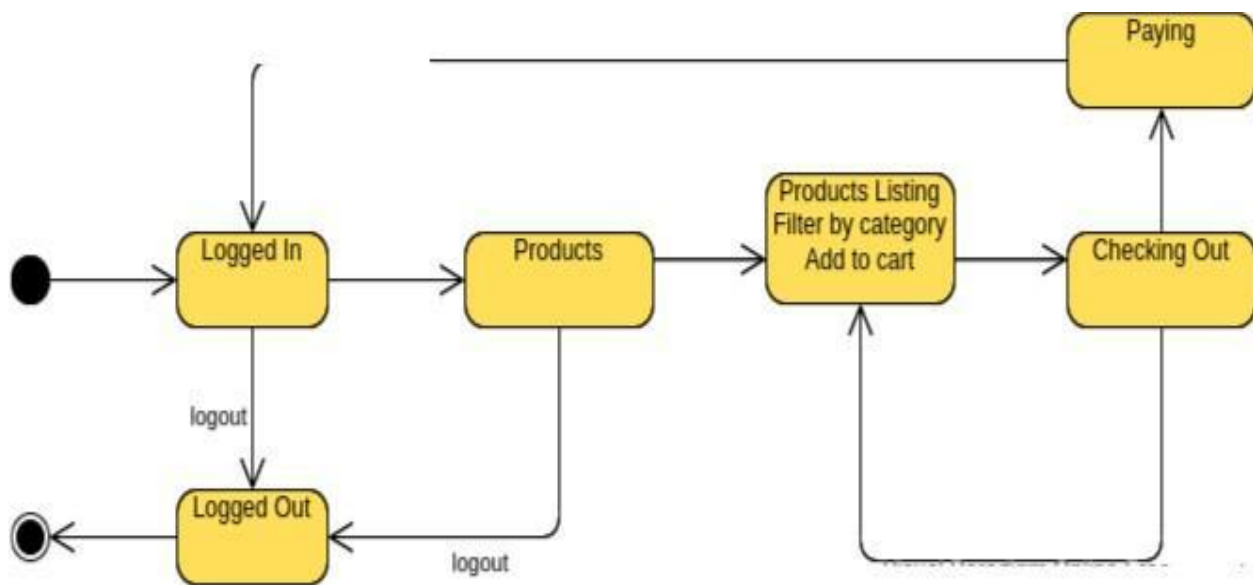

Figure 4.4 State Diagram

4.5 Activity Diagram

An activity diagram portrays the control flow from a start point to a finish point showing the various decision paths that exist while the activity is being executed. We can depict both sequential processing and concurrent processing of activities using an activity diagram. They are used in business and process modeling where their primary use is to depict the dynamic aspects of a system. An activity diagram is very similar to a flowchart.
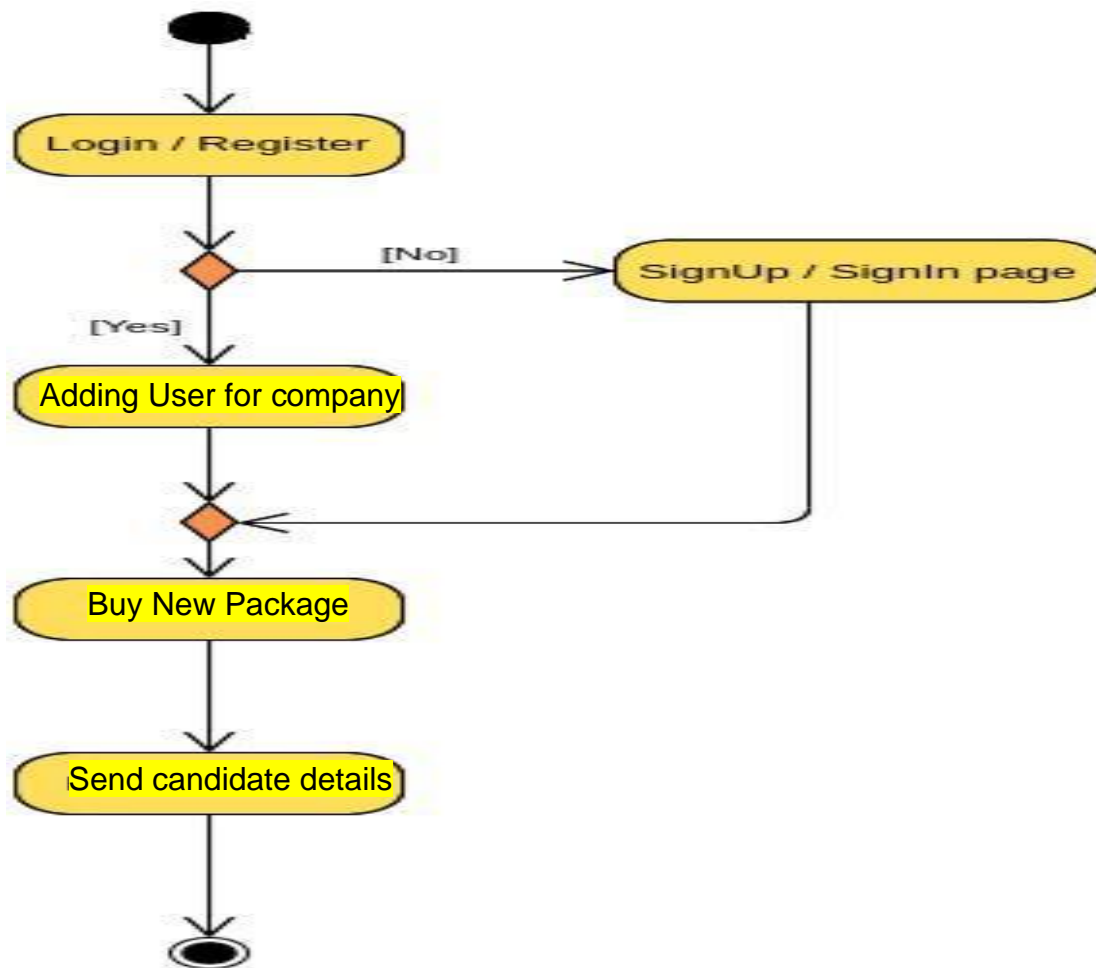

Figure 4.5 Activity Diagram

CHAPTER 5

SOFTWARE ENVIRONMENT

5.1 Visual Studio Code (IDE)

Visual Studio Code, also commonly referred to as VS Code is a source-code editor made by Microsoft for Windows, Linux and macOS. Features include support for debugging, syntax highlighting, intelligent code completion, snippets, code refactoring, and embedded Git. Users can change the theme, keyboard shortcuts, preferences, and install extensions that add additional functionality.

5.2 PhCharms [8]

PhCharms is dedicated Python integrated Development environment providing a wide range of essential tools for python developers tightly integrated a to create convinent environment for productive web and python development.

5.3 Postman

Postman is API development tool which helps to built, test and modify APIs. Almost any functionality that could needed by any developer

5.4 DBeaver

DBeaver is a SQL Cient software application and a database administration tool for relational database for uses the JDBC application interface to interact with database via JDBC driver.
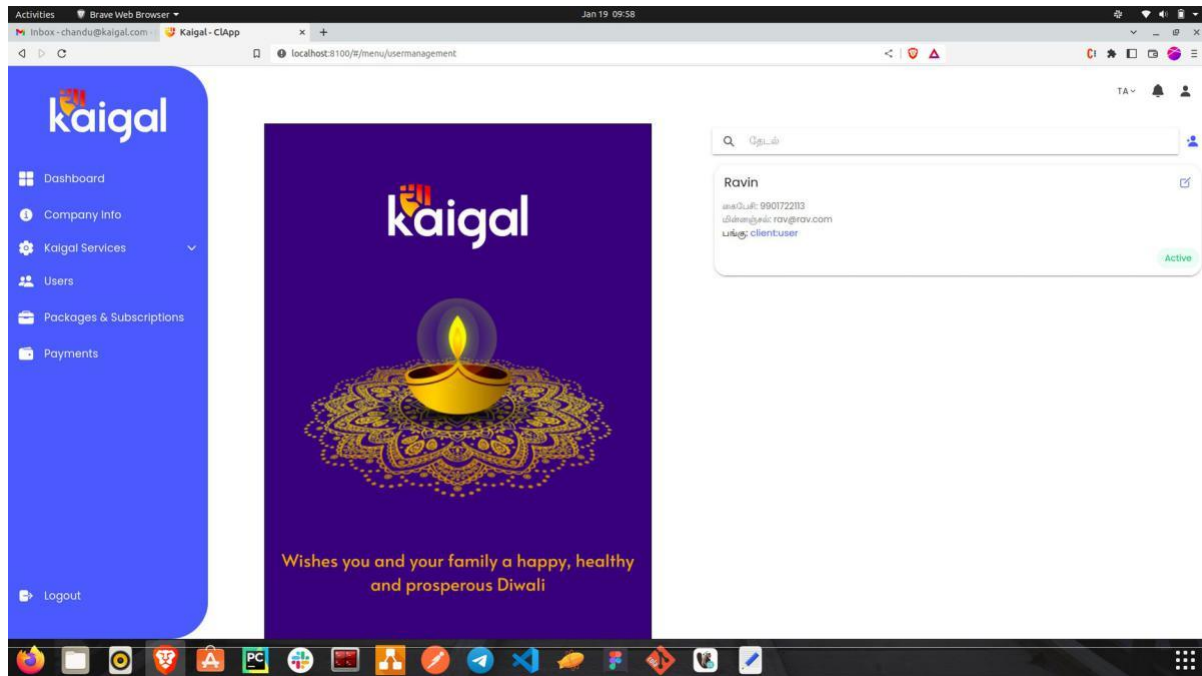
6.3 Sample Screenshots

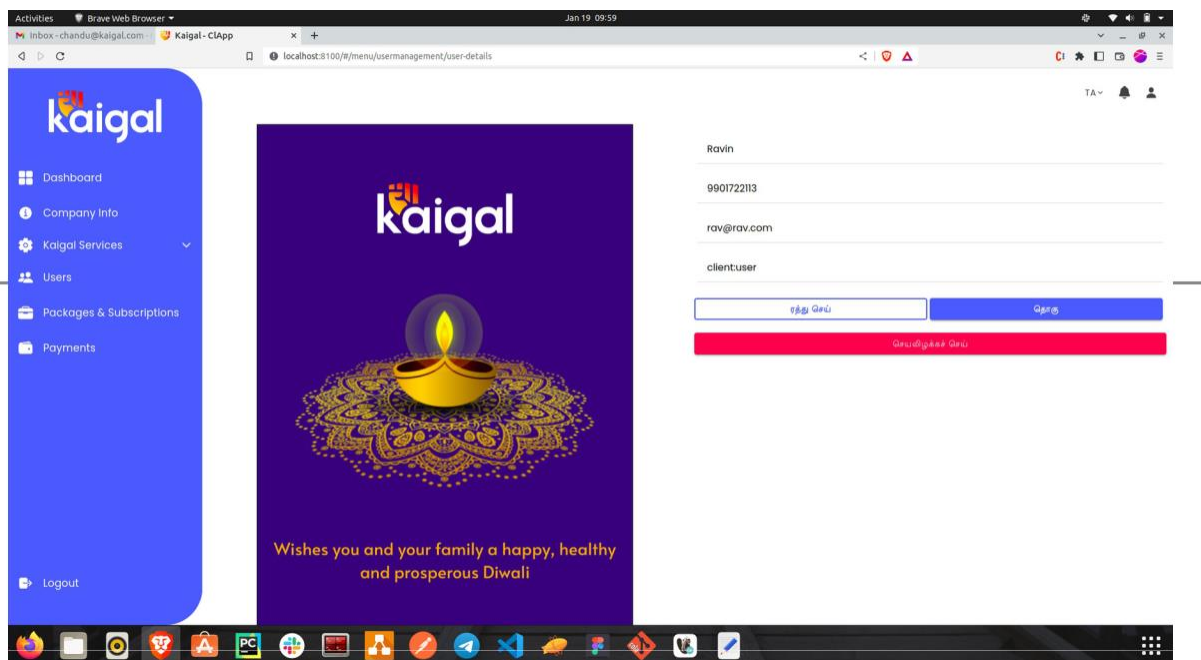Figure 6.3.1 User management home page

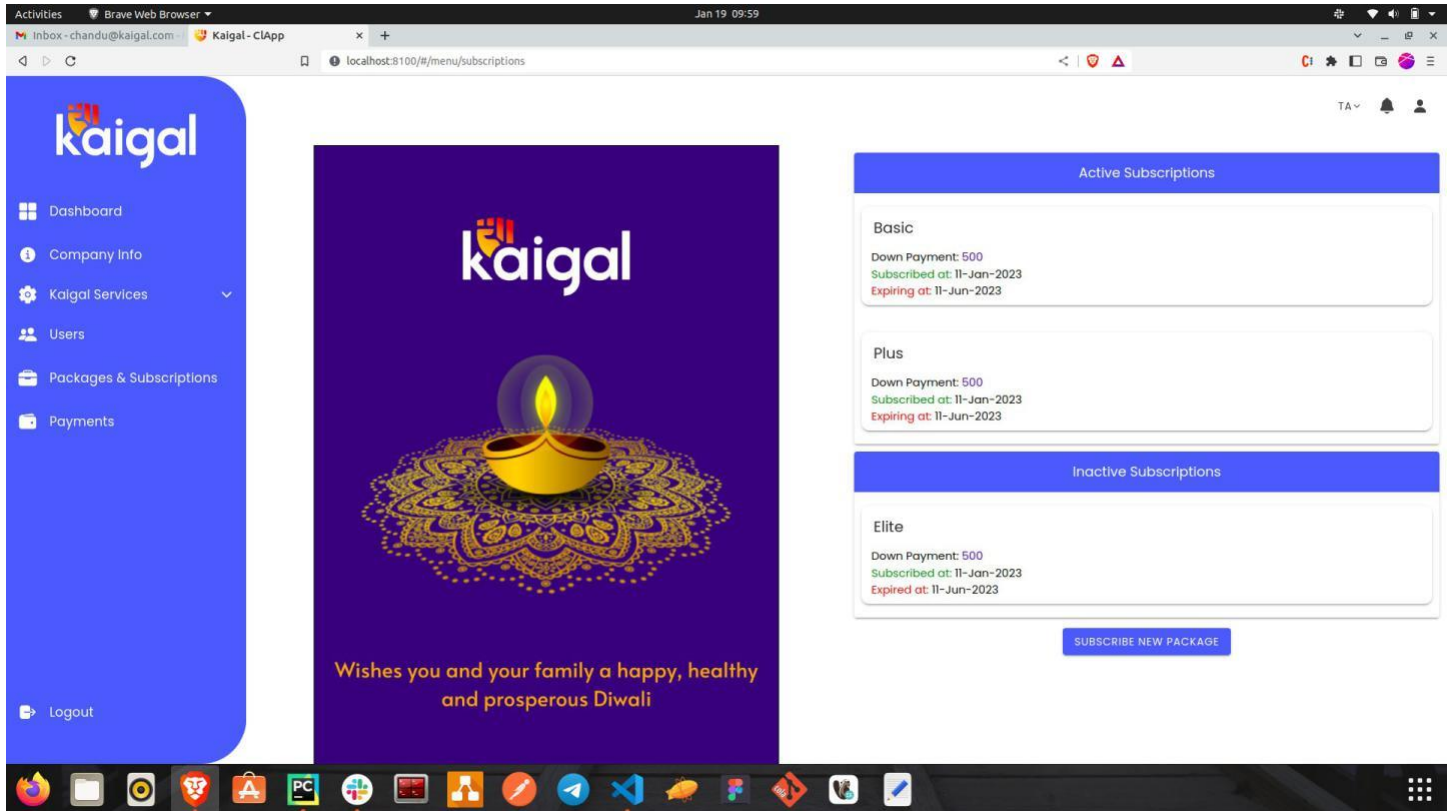Figure 6.3.2 UserManagement view details page

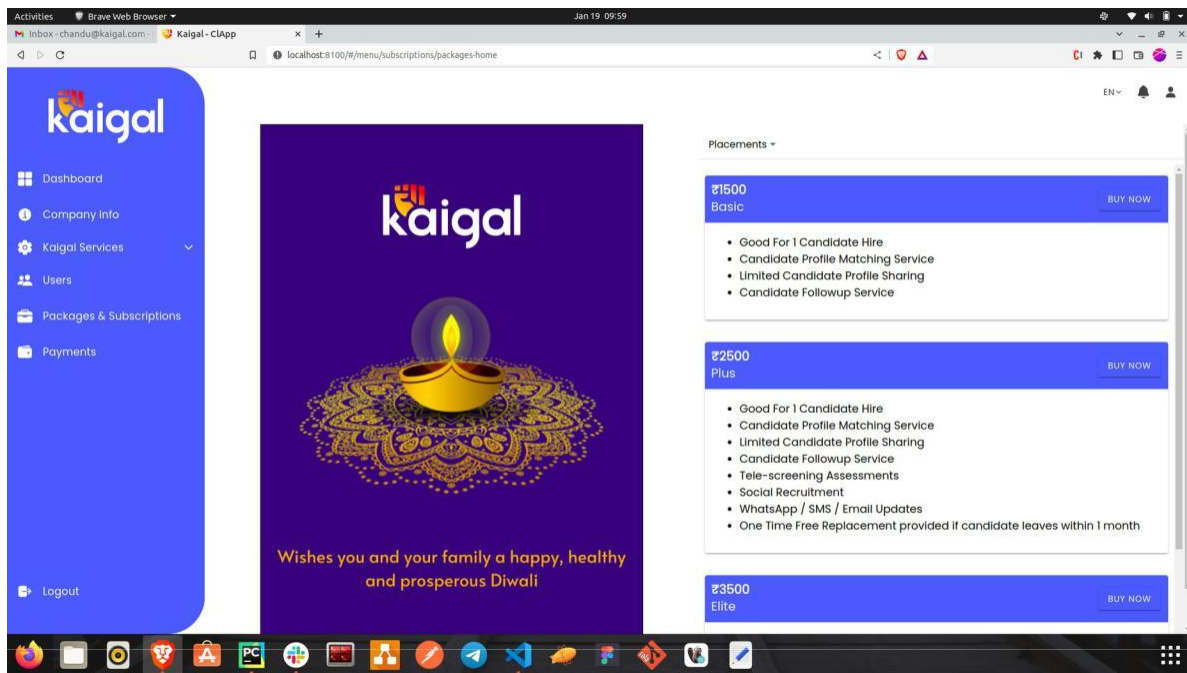Figure 6.3.3 Active and Inactive subscriptions page
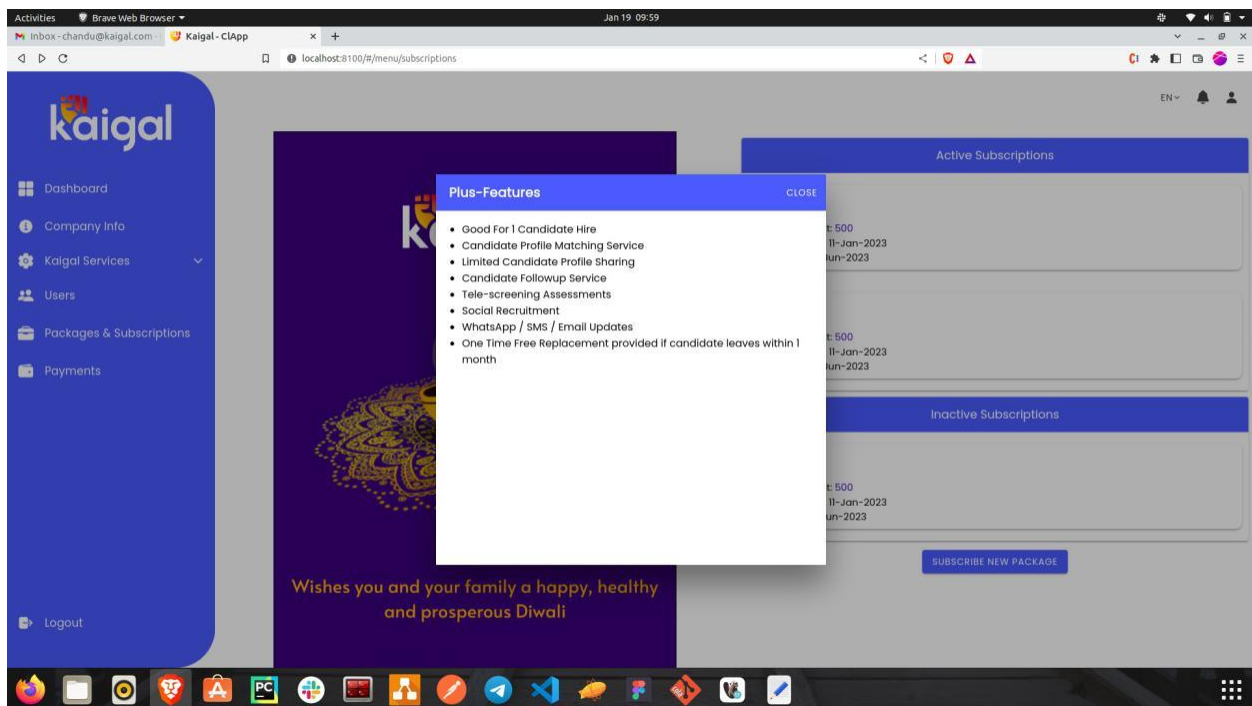
Figure 6.3.4 Buying New Subscription page

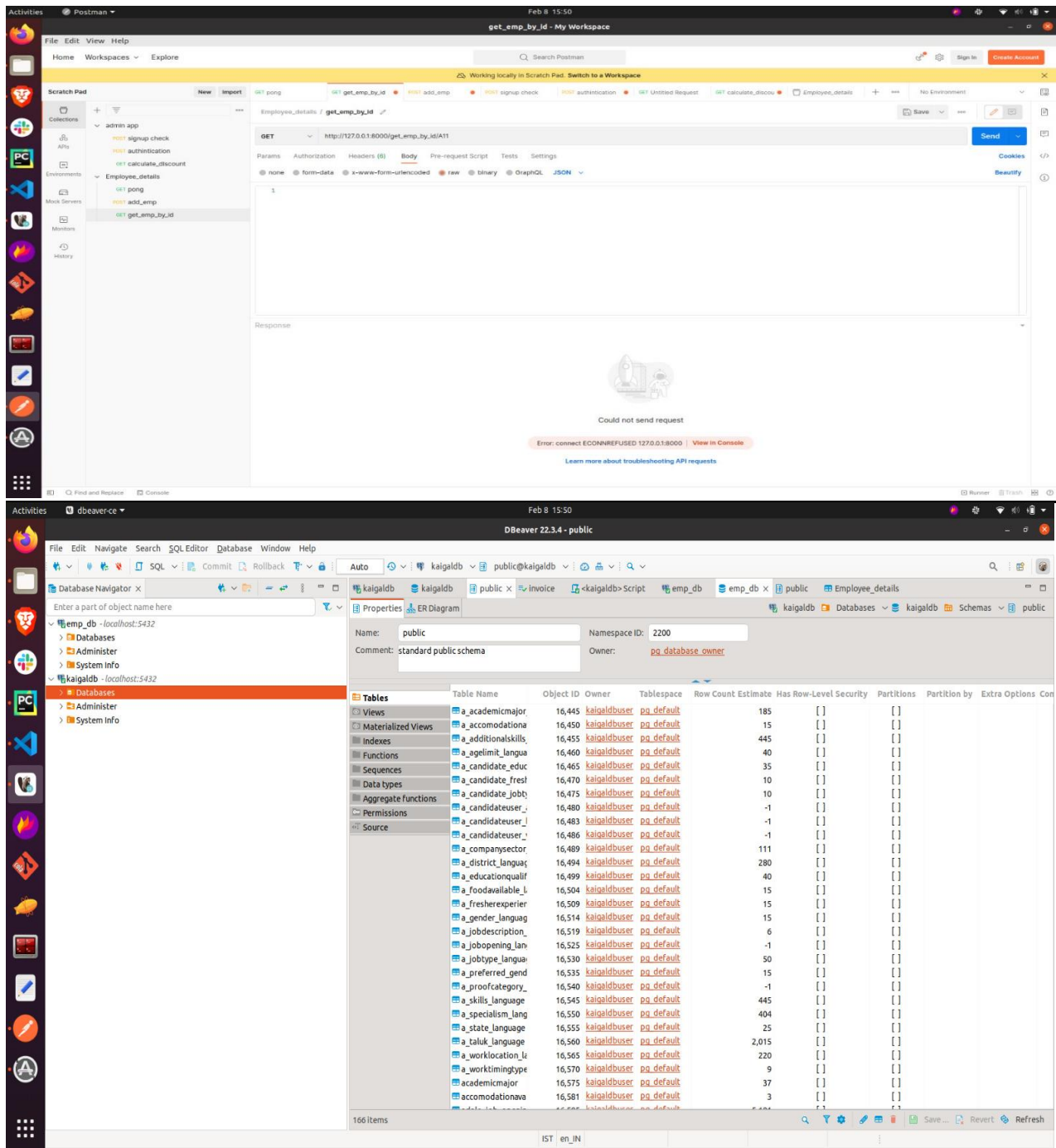Figure 6.3.5 Packages description popover

Figure 6.3.6 Testing With Postman and Storing data in Backend

CHAPTER 7
TESTING

System tests are designed to validate a fully developed system to assure that it meets its requirements. The test cases are therefore designed solely based on the SRS document. (OR) System testing is nothing but how the customer is going to start using your application and checking whether everything is up to the mark and meeting the needs of the customer.

7.1 Unit Testing:

Unit testing, a testing technique using which individual modules are tested to determine if there are any issues by the developer himself. It is concerned with functional correctness of the standalone modules. Reduces Defects in the Newly developed features or reduces bugs when changing the existing functionality. Improves design and allows better refactoring of code. Unit Tests, when integrated with build gives the quality of the build as well. It is the first level of functional testing. Below are the test cases on the individual modules of the designed website. The functionality of each module has been checked by the developer of the module.

7.1.1 User Management Home page:

User Management is the page in client app shows all the active and inactive users of the user that mean client who logged into the app with their company details. Users who are added by client only have the access to get the employees for their company and they can post the job openings in their company. It also filters the user if they are more users using ng2 search filter. While testing this individual model/component we found that there are no errors and negligible warnings.

7.1.2 User Management View more details page

In user Management on clicking on the user card here more details about the use should be opened there we can edit user details make as active and inactive user there itself.

7.1.3 Active and Inactive Subscriptions page

In the dashboard while clicking on the packages and subscriptions active and inactive packages of that user is displayed. If there no subscriptions available for the client then it display No subscriptions available and buy new package button is showed below.

7.1.4 Buying New Subscriptions

By clicking on the buy new package button it will navigate to another page where the different packages that present in the company are available. There buy clicking on the buy now button it will navigate to the Razorpay to pay the minimum amount and to start process .

7.1.5 Packages description Popover

The popover component helps us to know the features of the package that is active are inactive in subscriptions page. After buying the package some one forget about the features of the package they buy so at that time by clicking on the card the popover is displayed to let them know the packages.

7.2 Integration Testing

Integration testing is the second level of the software testing process comes after unit testing.In this testing,units or individual components of the software are tested in a group.The focus of the integration testing level is to expose defects at the time of interaction between integrated components or units.unit testing uses modules for testing purpose,and these modules are combined and tested in integration testing.

The goal of integration testing is to check the correctness of communication among all the modules.It includes four types of approaches.

A typical software project consists of multiple software modules, coded by different programmers. The purpose of this level of testing is to expose defects in the interaction between these software modules when they are integrated.

Integration testing includes various approaches like

1. Bigbang approach

2. Top down approach

3. Bottom up approach

4. Sandwiched Integration testing.

For this website, a Sandwiched approach of integration testing has been used.Sandwiched approach is also called a Mixed approach. We performed this testing by collecting individual modules and combining them one by one and tested for their functionalities whether those are working properly or not. First, we tested by combining the login page, signup page. We next combined the home page with those pages, product listing, user listing, product editing and user editing pages. Finally, after completion of integration testing, we confirmed that these individual modules worked properly even after being combined with other modules.

CHAPTER 8

CONCLUSION & FUTURE SCOPE

8.1 Conclusion

The The Client App is a Android based Client Registration app intended for Client Registration. The main objective of this app is to make it interactive and its ease of use using its Pages App behavior. It would make the client to register and get the employees much easier. Here client can also post the jobs that are available in there company. Client easily advertise their product by the client app. Company also accept payments through this client app.. Use of React components would make the application interactive, prevent annoying post backs and also helps in making the entire application into a Single Page Application (SPA).

8.2 Future Scope

The following things can be done in future.

- It should be developed in multiple languages to provide the services all over India.
- By developing this in multiple languages people can easily register and get the job clients also get the employees easily by giving more features.
- The users could subscribe for price alerts which would enable them to receive messages when price for products fall below a particular price level and subscribe for the plan.

CHAPTER 9
REFERENCES

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