FOOD RUNNER

A PROJECT REPORT

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CERTIFICATE

Certified that **APURVA GUPTA (2100290140035), AKANSHA SINGH (2100290140011) PRERNA SHARMA (2100290140106)** has/ have carried out the project work having "**FOOD RUNNER"** for Master of Computer Applications from Dr A.P.J. Abdul Kalam Technical University (AKTU**)** (formerly UPTU), Technical University, Lucknow under my supervision. The project report embodies original work, and studies are carried out by the student himself / herself and the contents of the project report do not form the basis for the award of any other degree to the candidate or to anybody else from this or any other University/Institution.

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ABSTRACT

An Online Food Ordering System is proposed here which simplifies the food ordering process. The proposed system shows a user interface and update the menu with all available options so that it eases the customer work. Customer can choose more than one item to make an order and can view order details before logging off. The order confirmation is sent to the customer. The order is placed in the queue and updated in the database and returned in real time. This system assists the staff to go through the orders inreal time and process it efficiently with minimal error.

ACKNOWLEDGEMENT

Success in life is never attained single handedly. My deepest gratitude goes to my supervisor, **Mr. Ankit Verma Sir** for his guidance, help and encouragement. throughout my research work. Their enlightening ideas, comments, and suggestions.

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CHAPTER 1

INFORMATION GATHERING AND ANALYSING

1.1 INTRODUCTION

Here, an android application named Food Runner is developed. This application manages all the Restaurants related information, this system also maintains records of all Restaurants who register on the application. In this system administrator and Restaurants can view their deals and details related to their Restaurants. Customers can also chat with the administrator of Restaurants for any query about their menu content. Administrator can add, edit, view, update, and delete any information on the application. Customers can view the information authorized by the administrator.

Food Runner is a collection of information of all Restaurants which are stored in one place for current and later use anytime and anywhere. The purpose of this project is to collect, displayand store all the deals and details of food of all Restaurants at one point. To provide android communication there is also online android chat box for necessity, to ask about any deal and detail about food. Manual searching for the Restaurants and reasonable prices is most time consuming and difficult as compared to Manual Suggestion Based System.

1.2 PURPOSE

This project aims at creating an Food Runner for online food ordering from all over the restaurants. This allows registered users of the system to easily log in and can easily visit all restaurant's menu online that are available on the interface and choose the menu available for the order. Saving time, money & easily order by sitting at home are major goals of this project. Customers can register themselves and view all the allowed details of the

Restaurants and the dishes. The Main objective of Food Runner is to gather all the Restaurants details to one same place and suggest. In this way, every customer will be able to order any kind of food from any Restaurant from this App. Below are some objectives we will cover in this project.

- We can save detail of all Restaurants.
- All Deals and Food Staff Record.
- All Customer Details.
- Ordering System for any person, anyplace and from any Restaurant.
- Price comparing Module is Useful for all the customers.

1.3 SCOPE

The Food Runner Cell that is to be developed provide the restaurants as well customers of University of Education deals and Food Stuff and notes information and also their next and previous order details. The Food Runner is supposed to have the following features:

- The project provides the customers and restaurants withonline deals and Foodstuff viewing and downloading.
- The project provides login facility to the customers.
- The system provides the customers suggestions about restaurants and food items according to their budget.
- The customers can chat with the administrator for any query about restaurants details and deals.

The features that are described in this document Food.Runner will cover all the Restaurants details and the food that can be order by the user.Document are used in the future phases of the project development cycle. The features described here meet the needs of all the customers. The success criteria for the system is based in the level up to which the features described in this document are implemented in the system.

CHAPTER 2
LITERATURE REVIEW

INTRODUCTION

Computer plays an important role in our daily life. Anything we want we can get only In one mouse click. Speed, reliability, and accuracy of the computer make it a powerful tool for different purposes. A very important and basic need of today's modern business world is the quick availability and processing of information using computer.

One can easily get the type of required information within a fraction of a second. The project that we have taken is also in this category which is used in our daily life whenever we want to purchase some items, we can easily get them at our home.

It is very typical to establish a small-scale business with less resources to provide quality services. Now a days people are attracted to online business. Let us assume if there is any online business where customers can order their needs and the goods will reach them at the expected delivery time. The customers of today are not only attracted because placing an order online is very convenient but also because they have visibility into the items offered, likewise online food ordering system customers can order their favorite foods and this database will be the barrier for the customers and restaurants to provide the services.

ABSTRACT

An Online Food Ordering android application is proposed here which simplifies the food ordering process. The propose android application shows an user interface and update the menu with all available options so

that it eases the customer work. Customer can choose more than one itemto make an order and can view order details before logging off. The order confirmation is sent to the customer. The order is placed in the queue and updated in the database and returned in real time. This system assists the staff to go through the orders in real time and process it efficiently with minimal error.

LITREATURE REVIEW

A food delivery app is an app that is widely used nowadays. On- demand food delivery Services have completely revolutionized the traditional way of delivering food. In fact, during the Covid pandemic, people have ordered more food than ever before, which was a huge deal for business, as where one side the pandemic was forcing people to shut their food businesses down On-Demand food delivery on the other hand was acting as a silver lining for them. The growing number of restaurants makes restaurant development more competitive. Therefore, all restaurants keep improving their quality ofservice; one of the services is delivery order. Delivery order service offered by a number of restaurants is by making order through mobile phone. By following the technology development, some popular restaurants offered website as a choice for making orders in online mode [1].

Android is the most widely used OS in the world which provides a lot of functionality. and a number of programs to operate. It is also the OS which is almost used by each handset company except Apple as they have their own OS that is IOS. It also provides a lot of developer companies to develop applications that can be easily rubbed on the OS and provides good feedback for the application. The online food delivery system is available on both that is android and IOS and is widely used in the android because its market is vast and wide.

Mobile food ordering system is a tool which provides food Ordering facilities by installing it in Smart Phones. It provides many useful features to the users like map location of the nearest available hotel, detailed menus and the previous look of the order. It also provides the call facility to restaurants. The proposed system consists of two-part one for admi and second for the customer. The feature which is needed for the customer is profile, order, menu, and courier. The feature whichis needed for the admin section is Resto, order, menu and customer [2].Mobile food delivery system is mostly used in the metro cities where everyone is in a hurry and they do not have so much of time to make the lunch or the dinner as they cannot derive out time from their busy life. In these cities the maximum profit is gained to the companies.

MODULES OF THE APPLICATIONREGISTRATION

It is use for adding the new users that are using or logging in to the application for the first time. It asks for the username password mobile no email by which the user can login again whenever he/she wants to use the app by using the signing credentials they have put at the time ofregistration.

LOGIN

After registering the user has to login with the credentials to verify themselves.

FORGOT PASSWORD

This module enables users to generate new passwords using their email addresses. link to the indicated mail is sent to the user. He can generate. a new password by navigating to that link. The user can now log in with his new credentials.

PAYMENT MODULE

This module is provided for selecting the type of the payment for the user that how they want to make the payment of the food they have ordered.

SERVICES TO THE CUSTOMER

Home Page

All the food items that the chef has uploaded are on this page.

Cart Page

The customer places all the groceries they want to order on the shopping cartpage. The customer Can place their order from this page.

Track Order Page

The customer can track the order as soon as he finishes paying for it.

Profile Page

This page contains all customer credentials such as name, email, phone number, address, and password. The user can update both his password and number from this page. The Food Delivery Application was developed to solve the issues caused by the existing manual procedure. The purpose of this project is to develop an efficient food ordering system that can be utilized in the food and beverages sector to assist restaurants to quickly and effectively delivering mealsto the users. Every business, big or little, faces a dilemma when it comes to managing information about food items, orders, and payments. Online food order application was designed for increased significance and adaptability. It has been developed to handle many orders simultaneously in order to prevent food overload [3].

Mobile food ordering system is a tool which provides food Ordering facilities by installing. it in Smart Phones. It provides many useful features to the users like map location of the nearest available hotel, detailed menus and the previous look of the order. It also provides the call facility to restaurants. The proposed system consists of two part one for admin and second for the customer. The feature which is needed for the customer is profile, order, menu, and courier. The feature which is needed for the admin section is Resto, order, menu, and customer [4].

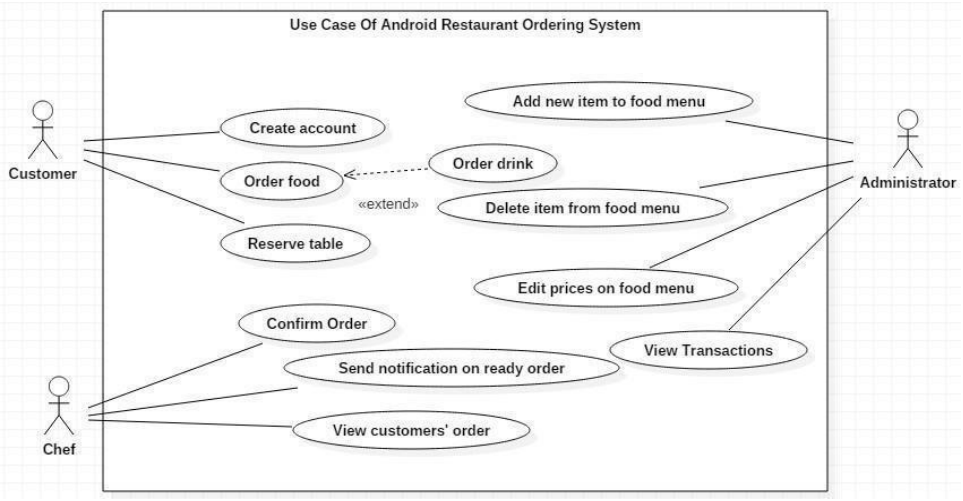

Fig 1. Working of the Delivery App

After the development of the application, one of the factors which plays a very important role in the success of the online food delivery application is different payment methods. Customer Convenience secured payment architecture, Strategy for referral coupon, different Payment preference of the customers, and various Discount by Portalsall comes under e- payment systems and result in increase in volume in sale [5].

CONCLUSION

In this, we planned the automated food ordering system for the restaurant. The system is compared to earlier food ordering traditionalmethods such as traditional pen and paper methods etc. We have deliberated advantages of the proposed system over those earlier methods. The segregating factor for the proposed methodology is its adjustable efficiency which comes from the technology it uses.

It allows users to browse through different product categories. This is accomplished through an easy-to-use graphical interface menu option. It allows users to save items to the ordered list and view detailed information about the order. The users can add any number of items to the ordered list from any of the available food categories by simply clicking the Add to Order button for each item. Once an item is added to the ordered list, the user is presented with detailed order to review or continue [6].

It allows the user to Proceed-To-Checkout. It allows the user to track the delivery. This is achieved when a user selects “Proceed to Checkout” button and fill up the Payment material details. It allows the user to see notification message after placing an order. This is reached when a user successfully places an order. The user is given the order confirmation number laterally with success message.

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CHAPTER 3
SOFTWARE REQUIREMENTSSPECIFICATION

3.1 FUNCTIONAL REQUIREMENTS

3.1.1 Network Login:

Since the system needs to handle a lot of confidential customer information, a network login function is essential for ensuring security.

- Admin - acts as the system administrator and can perform all functions.
- Customer - can view and order deals and food Items.

3.1.2 Customer Information Management

This function allows the personal information of customer, such as their name, phone no., address, etc., to be managed. Using this function, a customer can:

- View or order the deals and food items.
- Can Check his/her order status.

3.1.3 Admin Information Management

Food Runner app needs to change the records of items/ deals, such as the particulars, their prices, the type or Image, etc.
Using this function and admin can:

- Insert a new record for a deal/Food Item.
- Make changes to the record of a Food Items.

3.2 NON-FUNCTIONAL REQUIREMENTS

3.2.1 Reliability

Food Runner reliability requirements deals with failures to provide online food order services. As this project is based totally on **KOTLIN** so it provides the advanced functionality of better Security and Usability.

3.2.2 Supportability

Food Runner is designed & developed in **KOTLIN** as the backend language and **XML** as the front-end language it is supported by every device including PCs, Laptops, Tablet, Smart phones, and any handheld devices connected to the internet. It supports the android versions above 8.0.

3.2.3 System Requirements

Now, this method is intended in such the way that it takes fewerresources to figure out work correctly. It's its type of minimum needs that we'd like to require care of:

- System needs 6 GB ofRAM to run allthe operations smoothly.
- It wants a minimum of1.5GHz ofProcessor for all processes to runsmoothly.
- The system must be controlled by approved person as wrong hands can delete deals and Food Stuff, notes, resultsor leak them.
- Android Version 8.0 & above.

3.2.4 Usability

- The system shall allow the users to access the Food Runnerfrom the Internet using XMLor it's derivative technologies.

The Food Runner uses a GUI as an interface.

- No specific training is required as every person knows how to use mobile and android applicationnow adays.
- The Food Runner is user-friendly, self-explanatory, and responsive.

3.2.5 Efficiency

Food Runner is very efficient and compatible to every hardware onwhich it will run. Whenever admin or customer search any query, it will respond in no time (very fast).

3.2.6 Portability

Food Runner is adaptable to every environment of other Restaurants. It is designed and developed in such a way that it canbe ported to any hardware of Restaurants.

3.3 DOMAIN REQUIREMENTS

The Domain Requirements of Food Runnerare below, and all these domain requirements are capable to fulfill the requirements.

- **KOTLIN**
- **XML**
- **ANDROID DEVICE**
- **INTERNET**

3.3 USE CASES AND USAGE SCENARIOS

3.4.4 Use Case Diagrams

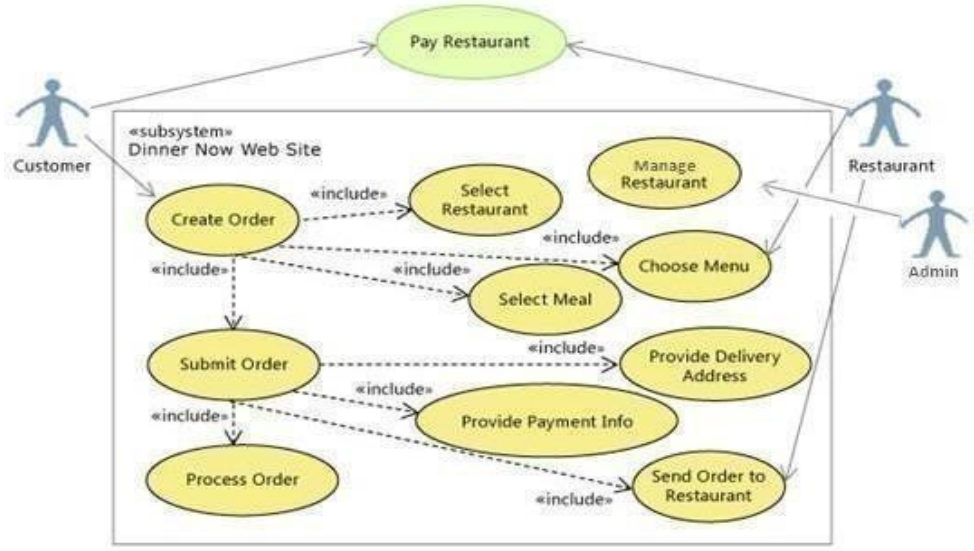

Figure 3.4.1.1: Use Case Diagram

In Use Case Diagram, a customer can view and order deals. Admin can access every panel including Customer Dashboard. Customer can check order status. He can also view and order deals and food items.

1. Use case name: Place Order
Description: Customer places an order from the available choices.
Primary Actor: Customer

Pre-conditions: System is connected to a power source; display is turned on and system is configured to accept the inputs.	
Flow of Events: 1. User selects his language preference for the session. 2. User selects fromthe menu. 3. User confirms the order. **Alternative Flow of Events:** 1. User accidentally presses a wrong button and after realizing it he hitsthebackspace button. 2. User enters a wrong order and wantsto go back to the main menu.	
Post Condition: Order has been. made that goes to the system for processing.	Assumption: User is familiar with how to enter values through mouse and has a general idea

Table 3.4.1.2: This Table shows theprocess of Order Placement

Use case name: customer, On Delivery, cash collector.
Description: The user is asked for the mode of payment. The Payment is accepted or is collected by cash collector. And the customer is given a token with their order **1. Use case name:** Monitor Food Itemsnumber.
Primary Actor: Customer
Pre-conditions: The order has been confirmed and the total bill has been displayed on the screen to the customer. Costumer decides to go ahead with the order.
Flow of Events: • User enters the mode ofpayment. (online/on Delivery) • User makes the payment in cash. • Cash collector collects the money and gives back the change if required.
• User receives a token number and final bill. **Alternative Flow of Events:** 1. User accidentally presses a wrong button and after realizing it he hitsthe backspace button. 2. User enters a wrong order and wants to go back to the main menu.
Post Condition: Customer waits for the orderto be processed. / Assumption: User is familiar with how the system works and what is expected out of system.

Table 3.4.1.3: This Table shows theprocess of Delivery.

Description: The user is asked for the mode of payment. The payment is accepted or is collected by cash collector. And the customer is given a token with their order number.	
Primary Actor Food preparation person, Store Manager **Description:** This use casetriggers when an item goes out of stock.	
Pre-conditions: None	
Flow of Events: 1. Food preparation person/Store manager notices an item out of stock. 2. Updates the menu accordingly.	
Post Condition: A new and updated menu listwill be displayed.	**Assumption:** The Store manager is given the rights and privileges to enter the system and make the required changes.

Table 3.4.1.4: This Table shows theMonitor Food Items

1. Use case name: Read Order.	
Description: Internal order system reads the order once the customer confirms his order and then he communicates the order to the Restaurant person.	
Primary Actor Food preparation person, Internal Order system.	
Pre-conditions: User confirms the order.	
• **Flow of Events:** 1. Internal order system reads the order. 2. Communicates the order to the Restaurant	
Post Condition: A new and updated menu list will be displayed.	**Assumption:** The Store manager is given the rights and privileges to enter the system and make the required changes.

Table 3.4.1.5: This Table shows the Read Order.

3.4.5 USAGE SCNEARIOS

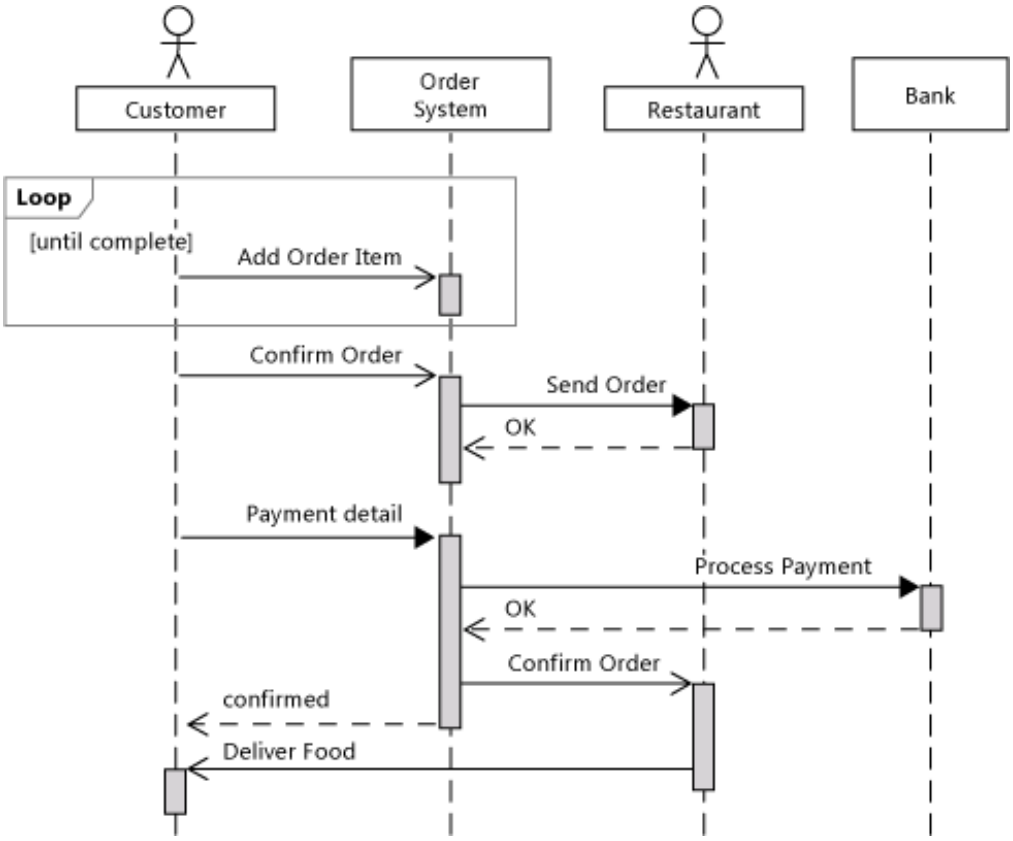

Figure 3.4.2.1: Sequence Diagram

In Sequence Diagram, we show the activities of the customer and its steps how he checks and access the application. Customer access the application and the response is fetched by XML which can be fetched by Database. Admin controls the Database.

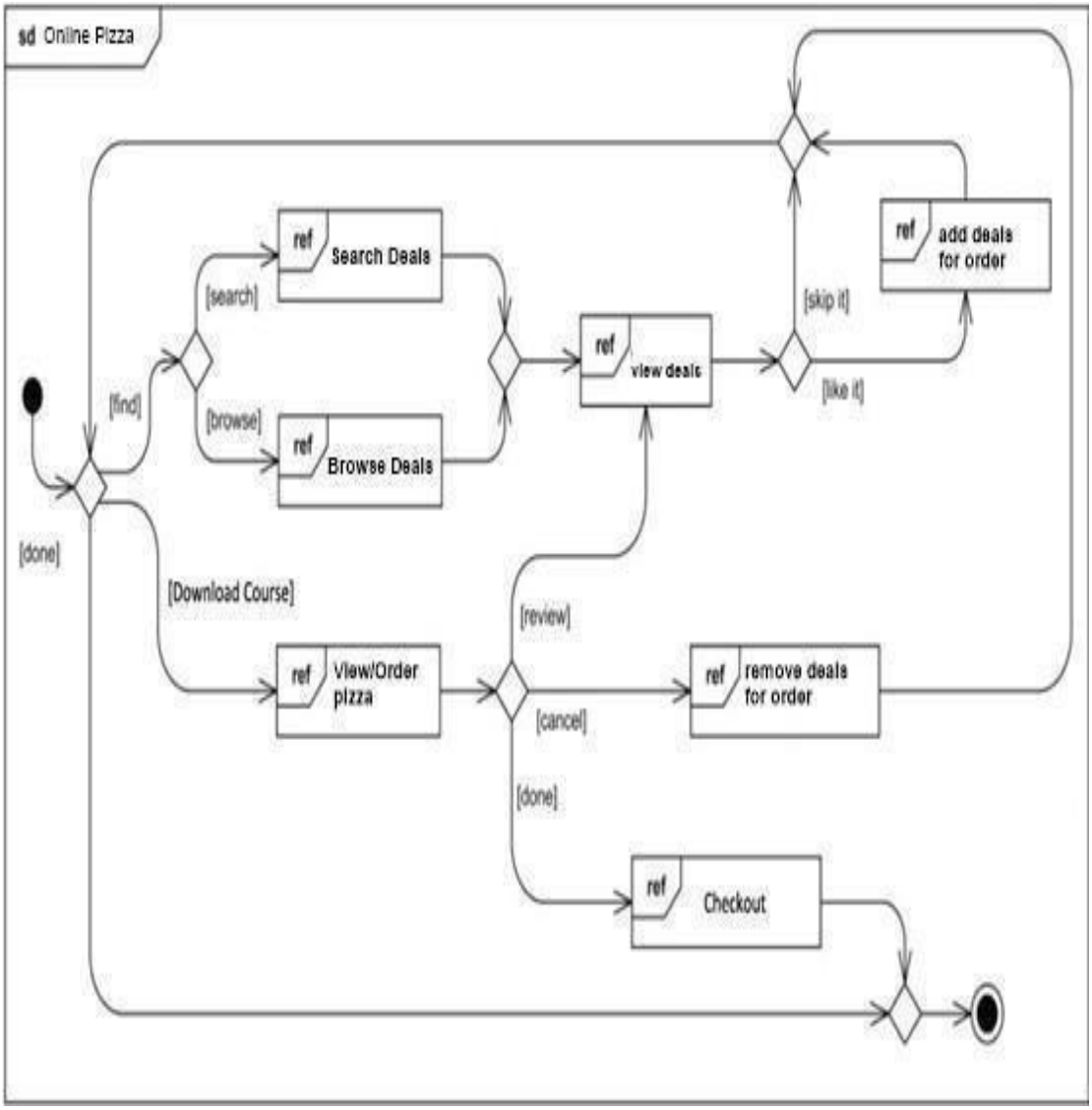

Figure 3.4.2.2: Interaction OverviewDiagram

In Interaction Overview Diagram, we show the customer open the application search deals and order it. He can also contact with the admin for any error or query. He can search, browse, view or order the food items and deals and can checkout.

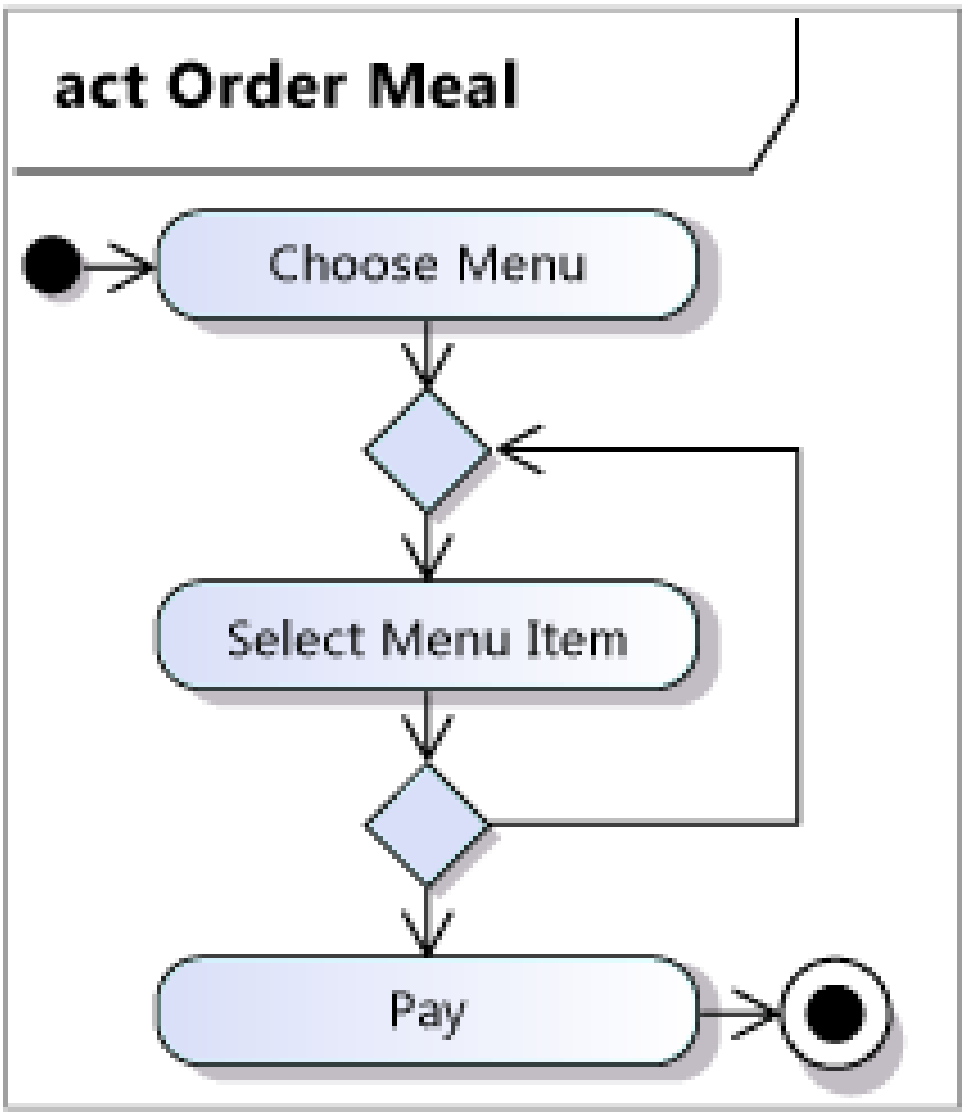

Figure 3.4.2.3: Activity Diagram

In this Activity Diagram, we show the flow of admins how theycan login and access the application. admins can view and update information there and new admin/ restaurant can register. Admin/ restaurant can update their profile and can left the application.

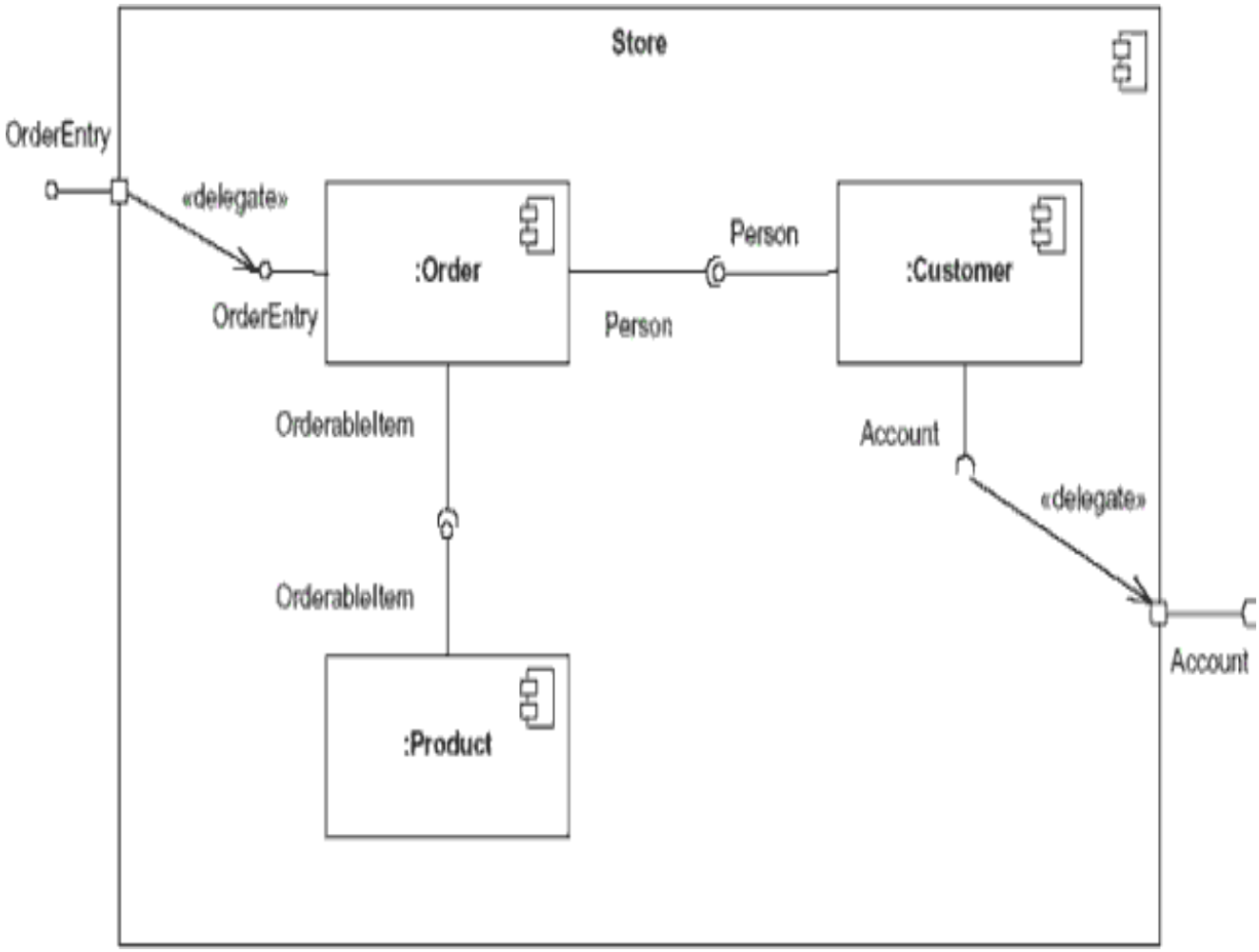

Figure 3.4.2.4: Component Diagram

In the Component Diagram, we show the Internal structure of the Food Runner. Management System in which customer can search, view, and order the deals or food items. User can search the deals from the Database we created which contains all type of food stuff.

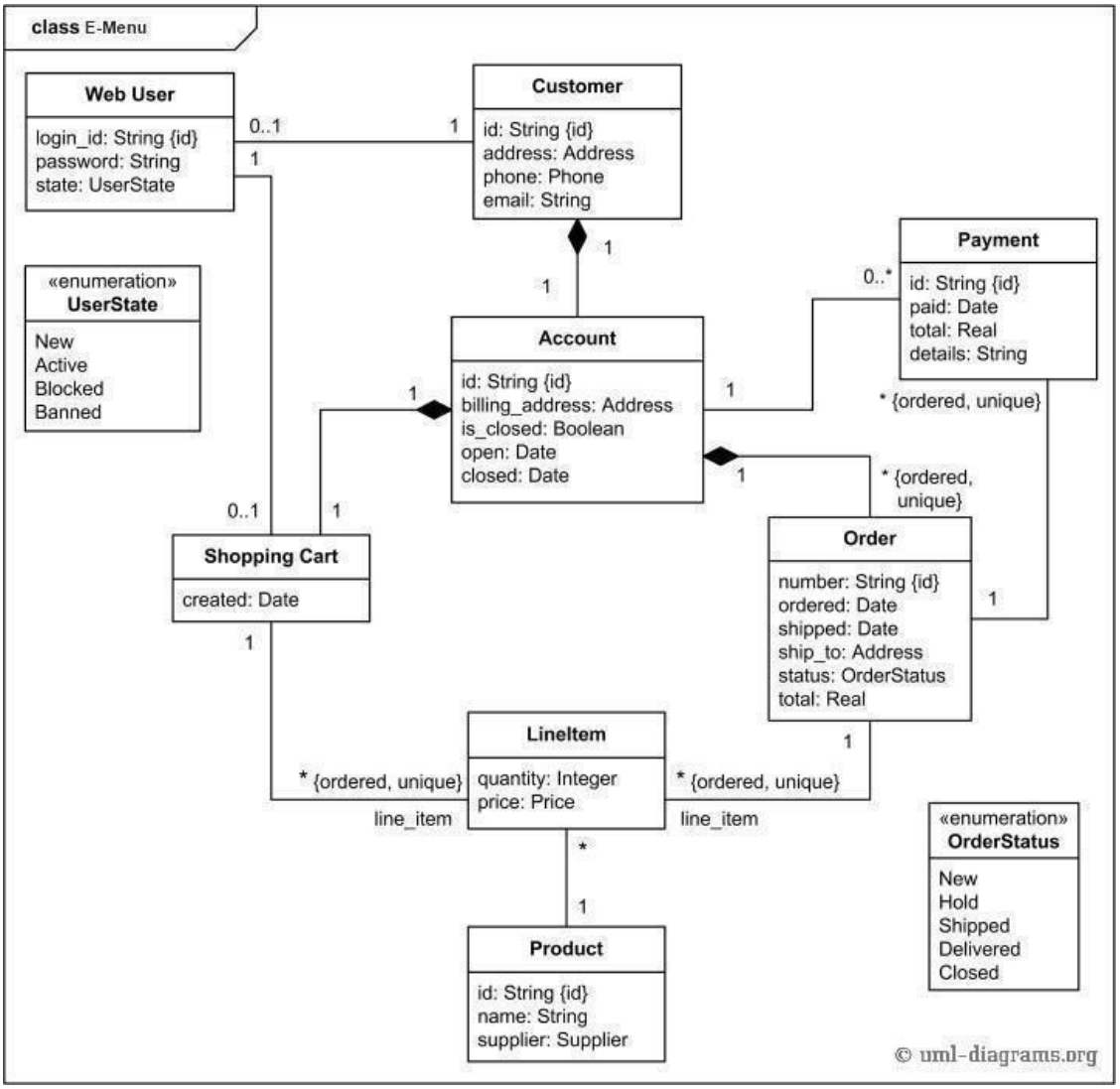

Figure 3.4.2.5: Class Diagram

In the Class Diagram, we show the activities of admin and customer. How admin can login and what he can do on the application like approve order, add items, modify items, add items, and add deals.

CHAPTER 4
PLANNING THE PROJECT

4.1 INTRODUCTION

The Planning Phase is the time when the project team transform the initial vision/scope from the Envisioning Phase into practical plans on how to achieve it. The main purpose of the Planning Phase is to define the solution in detail along with the approved project plan and schedule. It states that how and when the project's objective to be achieved. A project planning is a formal, approved document used to guide both project execution and project control.

4.2 METHODOLOGY

A software development methodology or methodology is a framework that is used to structure, plan and control the process of developing a system. It provides a project team with the game plan for implementing the project. A good methodology should be flexible and adapt to the needs of the project organization. It is defining the overall goals of the project.

4.2.1 AVAILABLE METHODOLOGIES

Here we have some Methodologies for developing a system.

Rapid Application Development Model

The term was roused by James Martin, who worked with associates to build up another technique called Rapid Iterative Production Prototyping (RIPP). Quick application advancement is still being used today and a few organizations offer items that give a few or the greater part of the apparatuses for RAD

programming improvement. These items incorporate necessities gathering instruments, prototyping devices,

4.2.2 CHOSENMETHODOLOGIES

We have used **Agile Unified Process Methodology** to develop Food Runner System.

4.3 REASONS FOR CHOSEN METHODOLOGY

Agile development, in its simplest form, offers a lightweight framework for helping teams, given a constantly evolving functional and technical landscape, maintain a focus on the rapid delivery of business value (i.e., bang for the buck).

As a result of this focus, the benefits of agile software development are that organizations are capable of significantly reducing the overall risk associated with software development.

Agile Method have some of these Advantages:

a. Stakeholder Engagement

b. Transparency

c. Early and Predictable Delivery

d. Predictable Costs and Schedule

e. Allows for Change

f. Focuses on Business Value

g. Focuses on Users

h. Improves Quality

4.4 WORK PLAN

Here is some work plan for unique web portal in which we defined how we plan to work:

Table 4.1 Work Plan

SR No	***Activities***	***Days***	***Reason of Durations***
1	Project/Product Feasibility Report	2	Analysis and finding feasibilities which are exists in our Product/project need little bit more concentration by we can judge that what kind of benefits can be obtained to a specific user.
2	Project/Product Scope	1	In scope we concentrate on the limit of area at which our Project/Product facilitating and defined.

3	Project/Product Costing	3	We need all counts of internal external files. Identifying the files also take more concentration. Calculation of F_i by rating, Cost / FP, Total Estimated Effort, and Total Project Cost involve deep study of project.
4	CPM - Critical Path Method	3	It is a large procedure in which first identifying project activities after that define all activities early start, early finish, late start, late finish and calculation of total slack time and Free slack time. And then finding the critical path byanalysis.
5	Gantt Chart	1	We have just entered data in MS Visio application software, because all work for Gantt chart already specify.
6	Introduction to Team member and Tools and Technology	1	We mention just introduction with specific skill set also define tools and technology which we are going to use.
7	Vision document	2	There is need only some more things and description of previous identified parameters of products for generating the Vision.
8	Risk List	1	There is need of finding the uncertainties which can be come in our product/project, and they definitely lead to loss also define the approaches to resolve them.

9	System specification and external entities	1	Need analysis according to systemspecification**.**
10	Use case descriptions	8	First identify the use case name and Description of everysingle use case according to OOAD.
11	Use Case Diagram	5	Make high level use case diagram and analysis level use case diagram in which we define inclusion, extension, and generalization relationships.
12	Design Class Diagram	4	Already identify Classes in domain model .in DCD first identify attributes and function of every class also define relationships among or between classes.
13	Data Model	1	Make ERD using Microsoft Visio.
14	Interface Creation	15	Interfaces are easy to use, user can easily interact with our system, and it is really a user friendly system.
15	Back-end coding	36	System can perform its required functionality on demand and without failure system can accomplish its given task accurately and completely according to standard time and cost.
16	System Testing	9	This is the phase which aware us the work need some changes, or it meet user requirements or not, If not then what changes are required.

Table 4.1 Work Plan

4.5 PROJECT STRUCTURE

- Prepare for the activity of site mapping.
- Brainstorm the types of content.
- Define primary navigation.
- Flesh out second &third level structure & content
- Don't forget about utility pages.
- Create notes and high-level specifications for each page.
- Designate the type of design template.
- Iterate. Iterate. Iterate.

4.5.1 Team Structure

A good android development project nearly always has the following necessary roles:

- Content Creator – helps generate new content for theapplication.
- Project architect – develops the overall concept of the project (not the design)
- Project manager – manages the project and keepseverything on track.
- Theme designer – designs the look and functionality ofthe app.
- Back-end developer – creates the framework the app interface will be placed on
- Front-end developer – creates and implements interfacecomponents.
- App tester – ideally does everything possible to try and break the site until it can be broken no more.

4.3.2 PROJECT SCHEDULE

Scheduling is all about keeping your workflow as organized as possible. At its core, it allows you to define your project's final deadline and determine the individual milestones that must be met to hit that deadline. Identify individual deliverables.

- Define the sequence of activities.
- Determine the resources required.
- Identify external factors that could influence your project.
- Establish key milestones and final deadlines.
- Create your schedule.
- Monitor and reforecast.

CHAPTER 5
DESIGNING THE PROJECT

5.1 INTRODUCTION

Any Design in an application is the base to attract any user to our application or an application. When user visit Application or an application he has no concern about the code used behind the Application or application. He does not need to know which tool is used in this design of the Application. The Design of any Particular Application or an application represents its Functionality. Proper Designing or Structure of the application Provide User Support.

5.2 PURPOSE

1. The Purpose of the application is to facilitate the Customer.
2. It Provides data about all Restaurants.
3. It stores all kinds of Information about Restaurants.
4. It Generates Information of the nearby all Restaurants.

5.3 SCOPE

1. To Provide Customers the Access of ordering any kind of Food Online.
2. To Provide User Friendly Environment.
3. To Provide Wide Collection of Restaurants Record.
4. To Add, Delete, and Manage their Accounts.
5. To Communicate with Customers and Restaurants Members.

5.4 DEFINITIONS, ACRONYMS AND ABBREVIATIONS

While making the Food Runner no special acronyms and abbreviations can be used there are simple terms can be used which is given below.

5.4.1 KOTLIN

Kotlin is a general purpose, free, open source, statically typed "pragmatic" programming language initially designed for the JVM (Java Virtual Machine) and Android and combines object-oriented and functional programming features. It is focused on interoperability, safety, clarity, and tooling support. Versions of Kotlin targeting JavaScript ES5.1 and native code (using LLVM) for a number of processors are in production as well.

5.4.2 XML

Extensible Markup Language is a markup language that was designed to transport and store data. he Extensible Markup Language (XML) is a simple text-based format for representing structured information: documents, data, configuration, books, transactions, invoices, and much more. It was derived from an older standard format called SGML (ISO 8879), to be more suitable for Web use.

5.4.3 MySQL

MySQL is an improved version of Structure Query Language. It is a database management system that provide a flexible and efficient database platform to rise a strong "On Command" business application.

5.4.4 ADMINISTRATOR

The administrator can perform all the activities of the system such like add, remove, update different records and He or She can also create new users and also can delete any deals and Food Stuff and user and change its password.

5.4 ARCHITECTURAL REPRESENTATION (ARCHITECTURE DIAGRAM)

For system developers, they need system architecture diagrams to understand, clarify, and communicate ideas about the system structure and the user requirements that the system must support. It's a basic framework can be used at the system planning phase helping partners understand the architecture, discuss changes, and communicate intentions clearly.

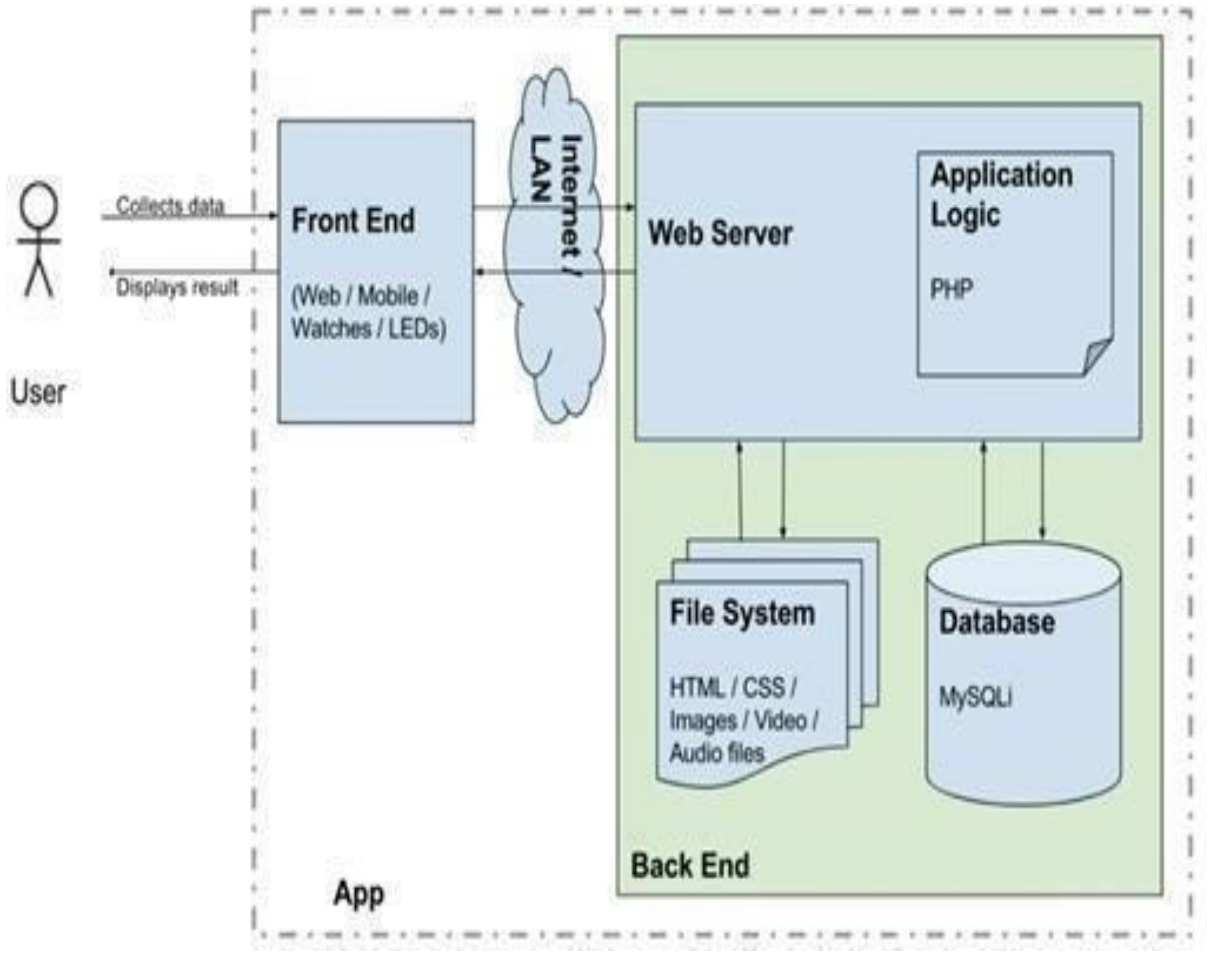

Figure 5.5. ARCHITECTURE DIAGRAM

5.5 DYNAMICMODEL: SEQUENCE DIAGRAMS

Sequence diagrams are used to show the functionality through a use case. Any actors involved in the system are shown at the topof the diagrams. The objects that the system needs in the order to perform the use cases are shown at the top of the diagram. Each arrow represents a message pass between actors and the objects or object and object to perform the needed functionality. Following diagrams are used to describe the behavior of the system.

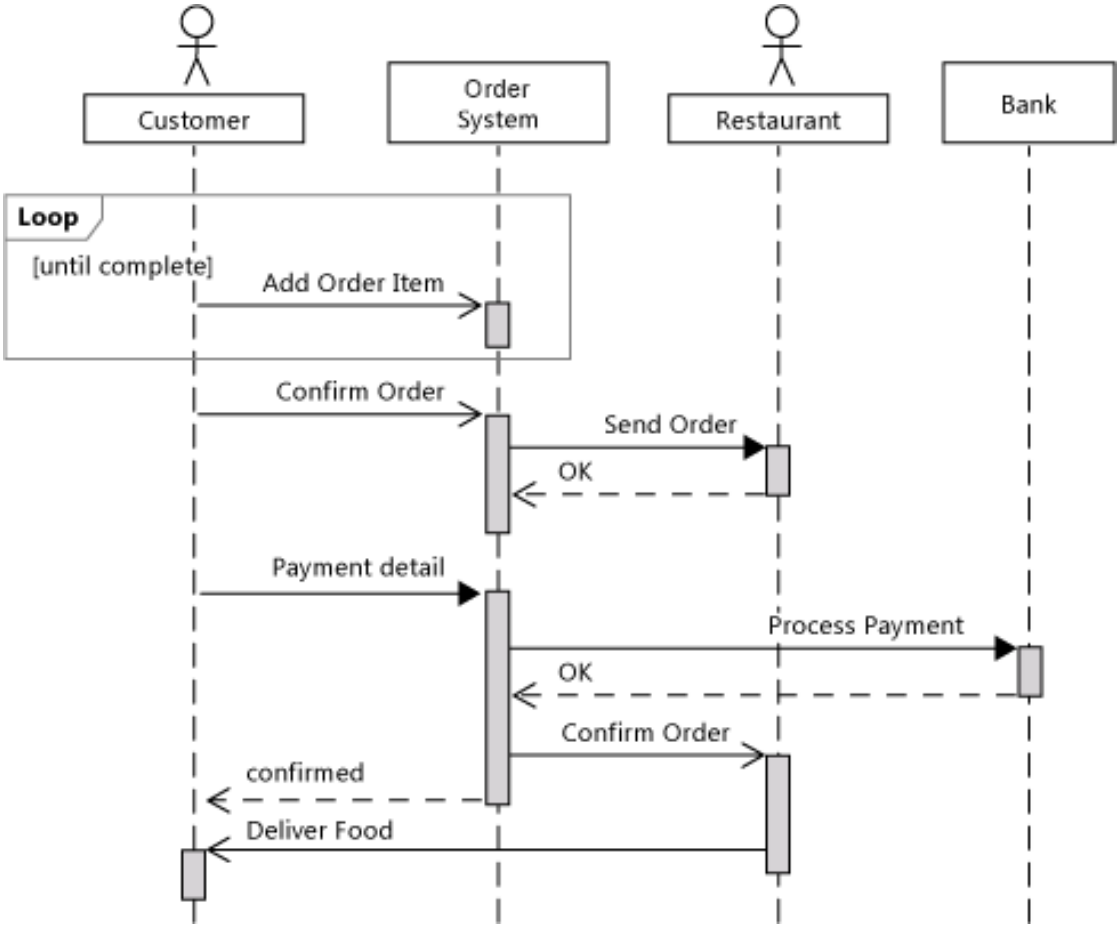

Figure 5.6. SEQUENCE DIAGRAM

5.6 OBJECTMODEL/LOGICAL MODEL: CLASS DIAGRAM

In the Class Diagram, we show the activities of admin and customer. How admin can login and what he can do on the application like approve order, add items, modify items, additems, and add deals.

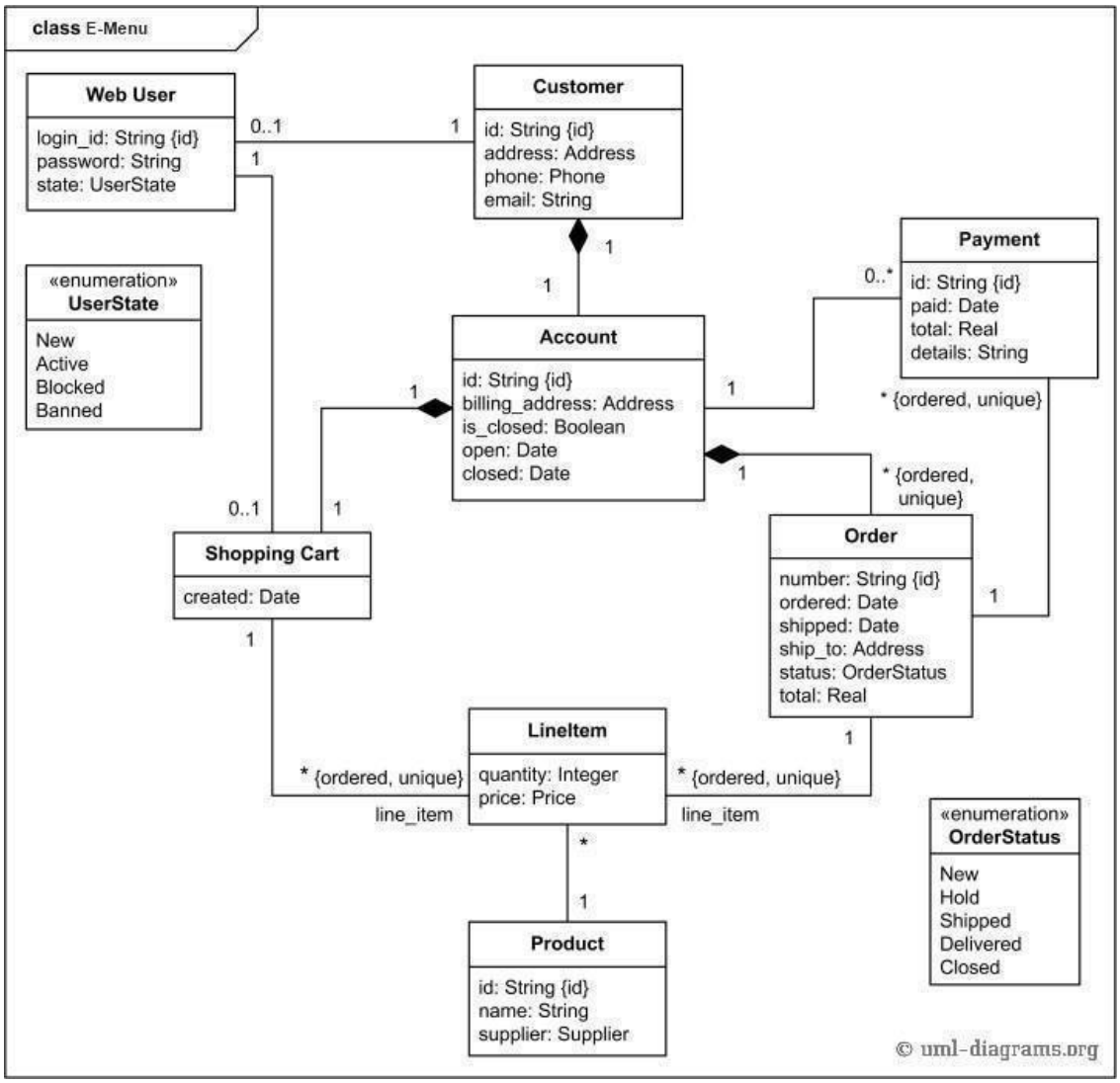

Figure 5.7. CLASS DIAGRAM

5.7 DATABASE MODEL (ER-DIAGRAM, DFD)

Many projects depend on Android Applications for performing various activities and stores the collected details in the database. Testing of the database is done to ensure the correctness for the design and working of the database. This paper performs testing of database design for the application using the Entity Relationship diagram for various components used in the database, the model is generated from the relational database that represents various data, entities, and the relationship among them. It generates the test data in the form of semantics of the prolog facts and the rules. The Guard queries are generated as test cases for the database. These are executed to validate that the design of the database is appropriate for the Web Application with the objects.

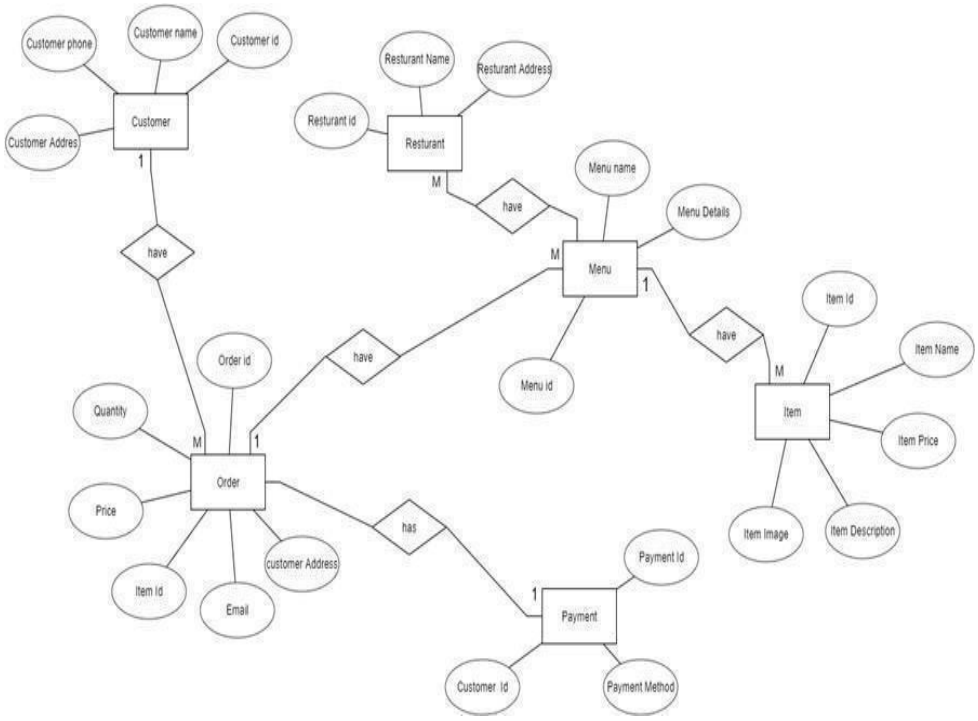

Figure 5.8: Database Model (ER-Diagram)

5.8 GRAPHICAL USER INTERFACES

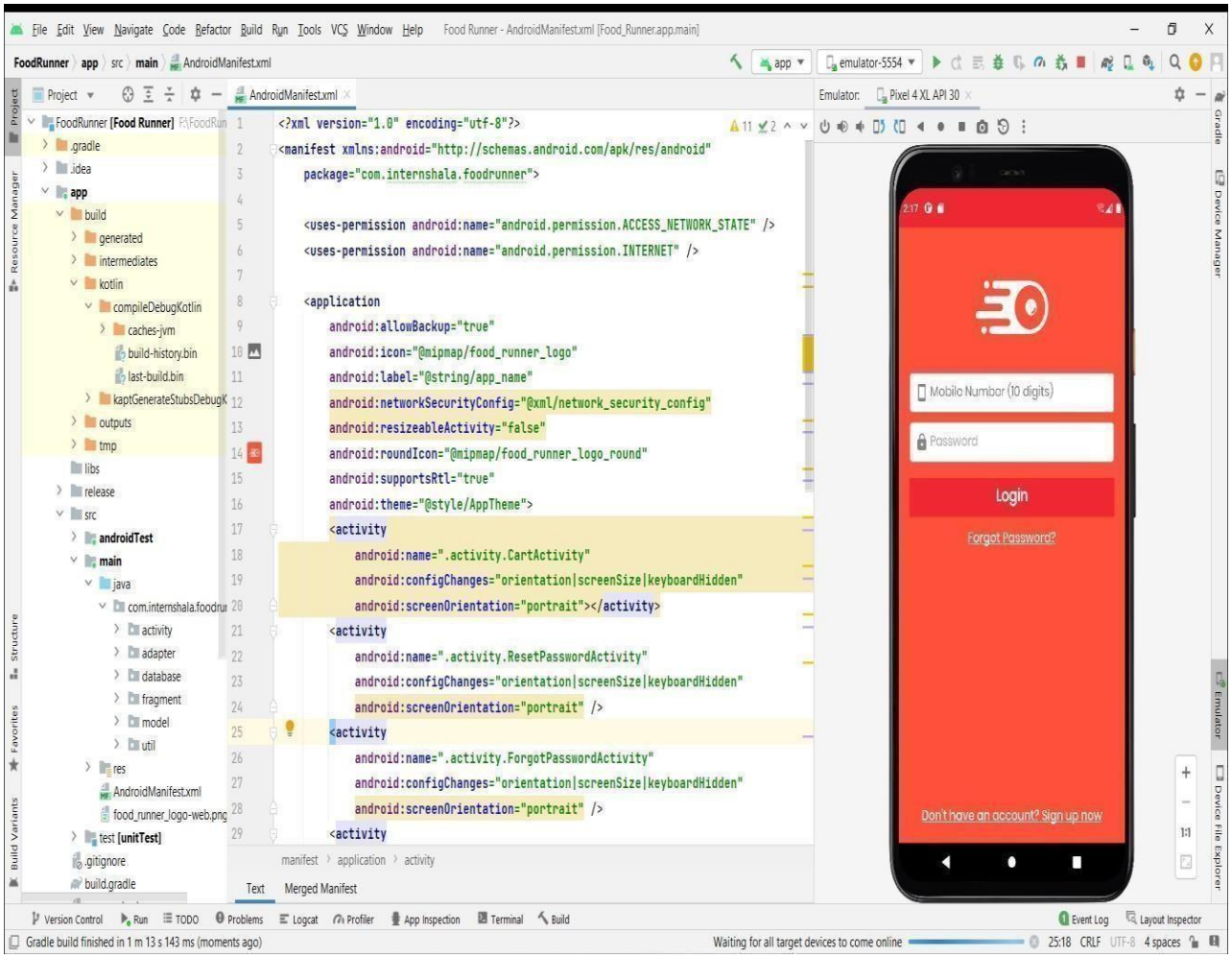

Figure 5.9.1: HOME PAGE

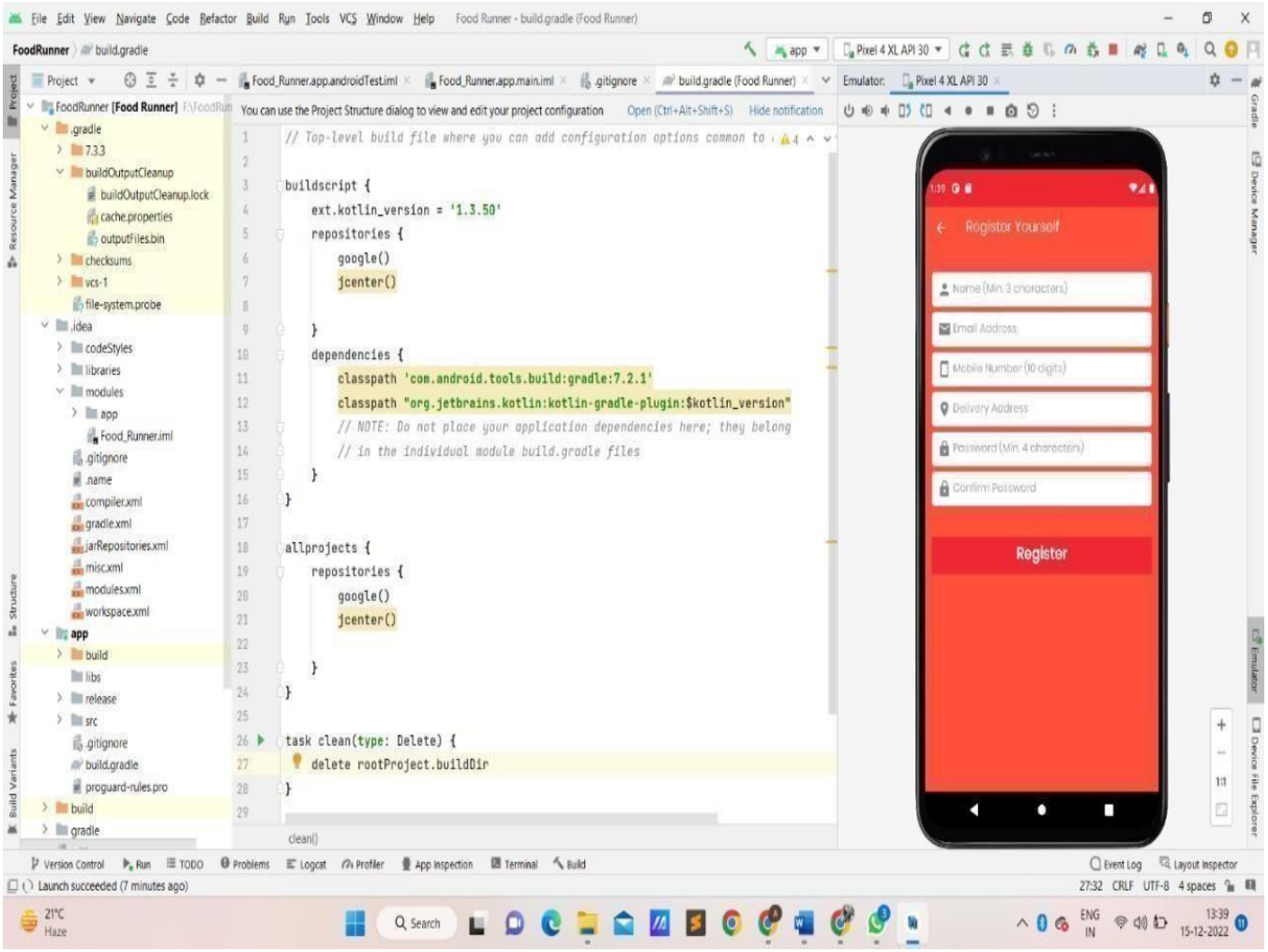

Figure 5.9.2: USER REGISTRATION PAGE

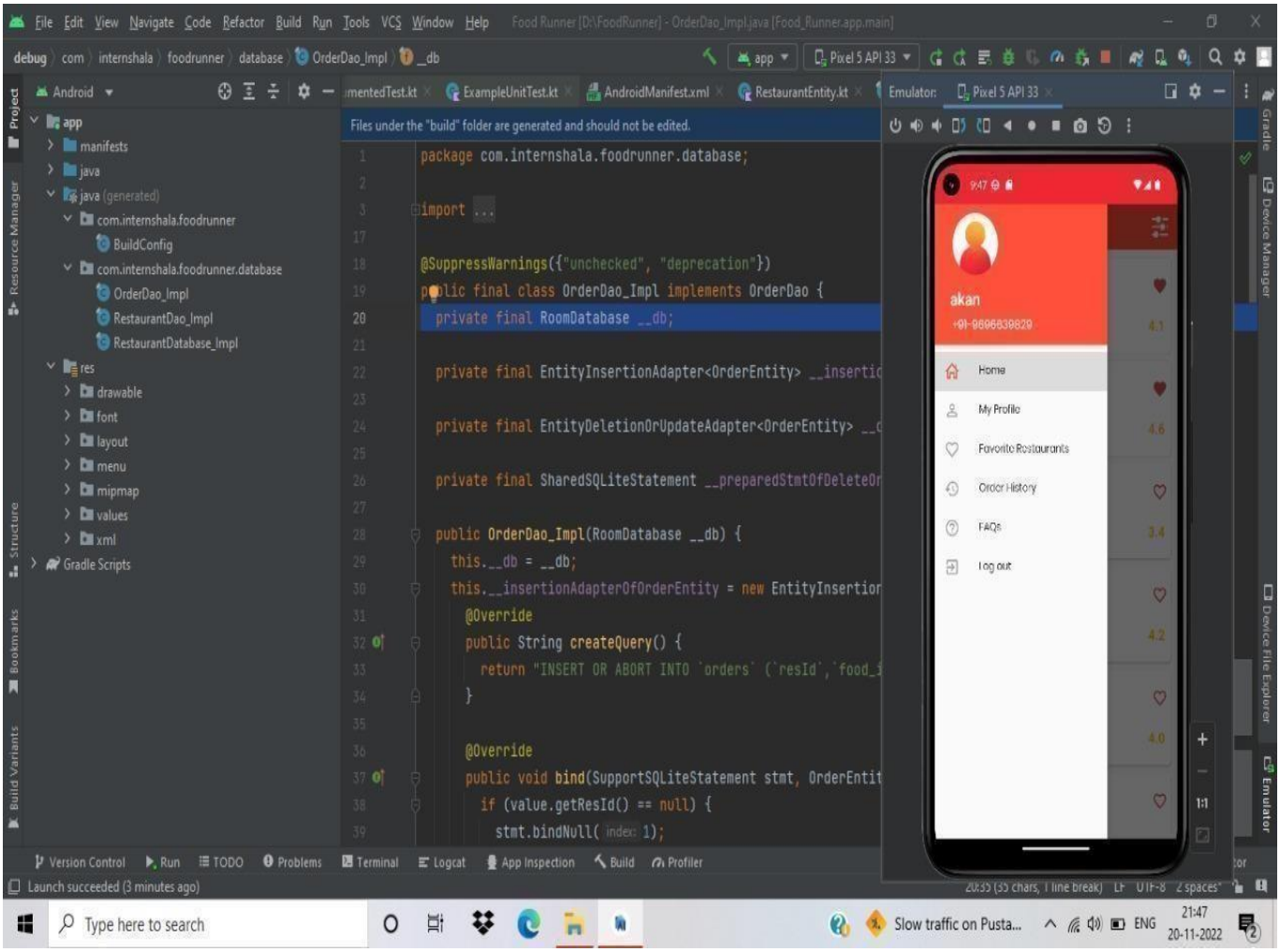

Figure 5.9.3: USER LOGIN PAGE

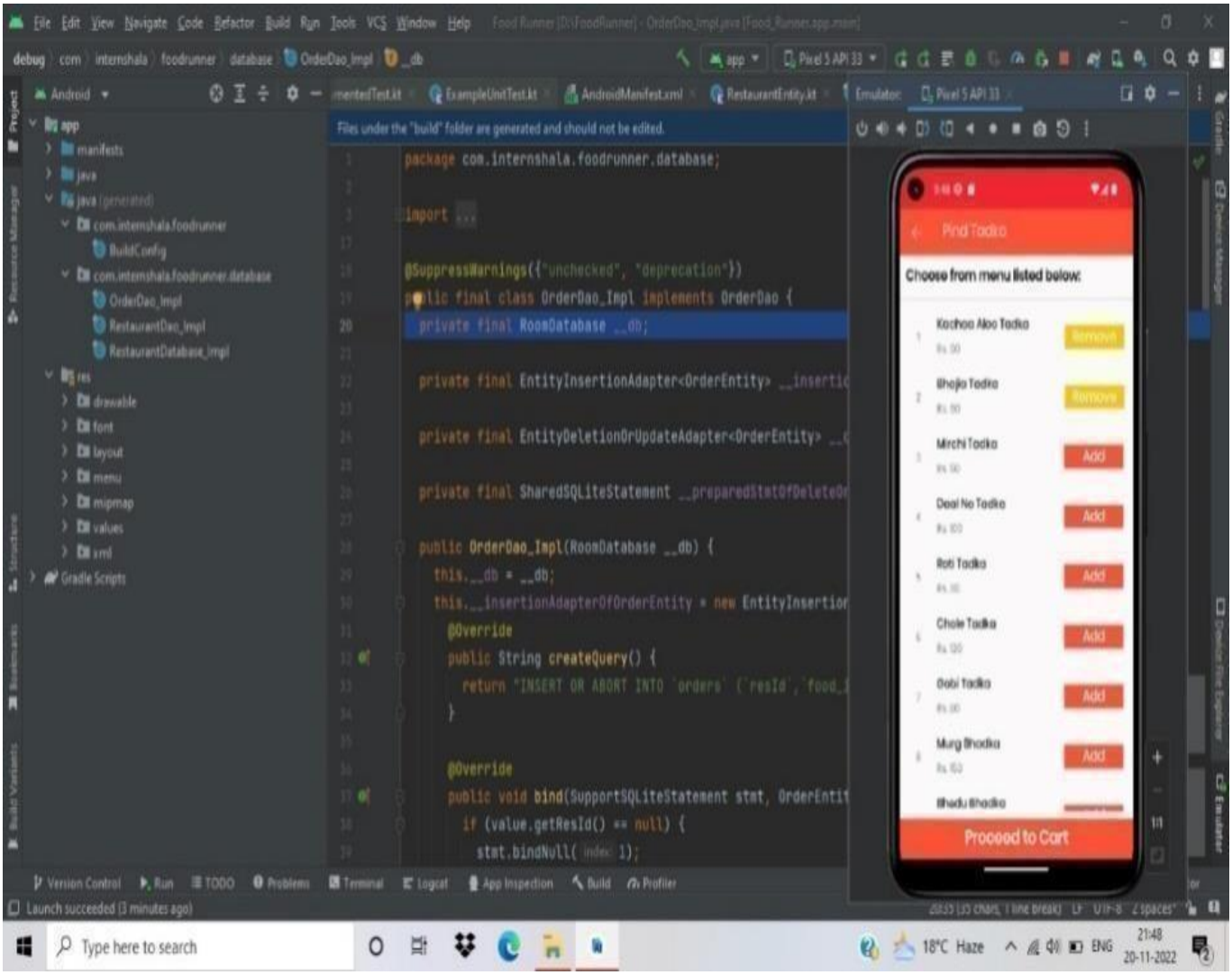

Figure 5.9.4: USER FOOD CART PAGE

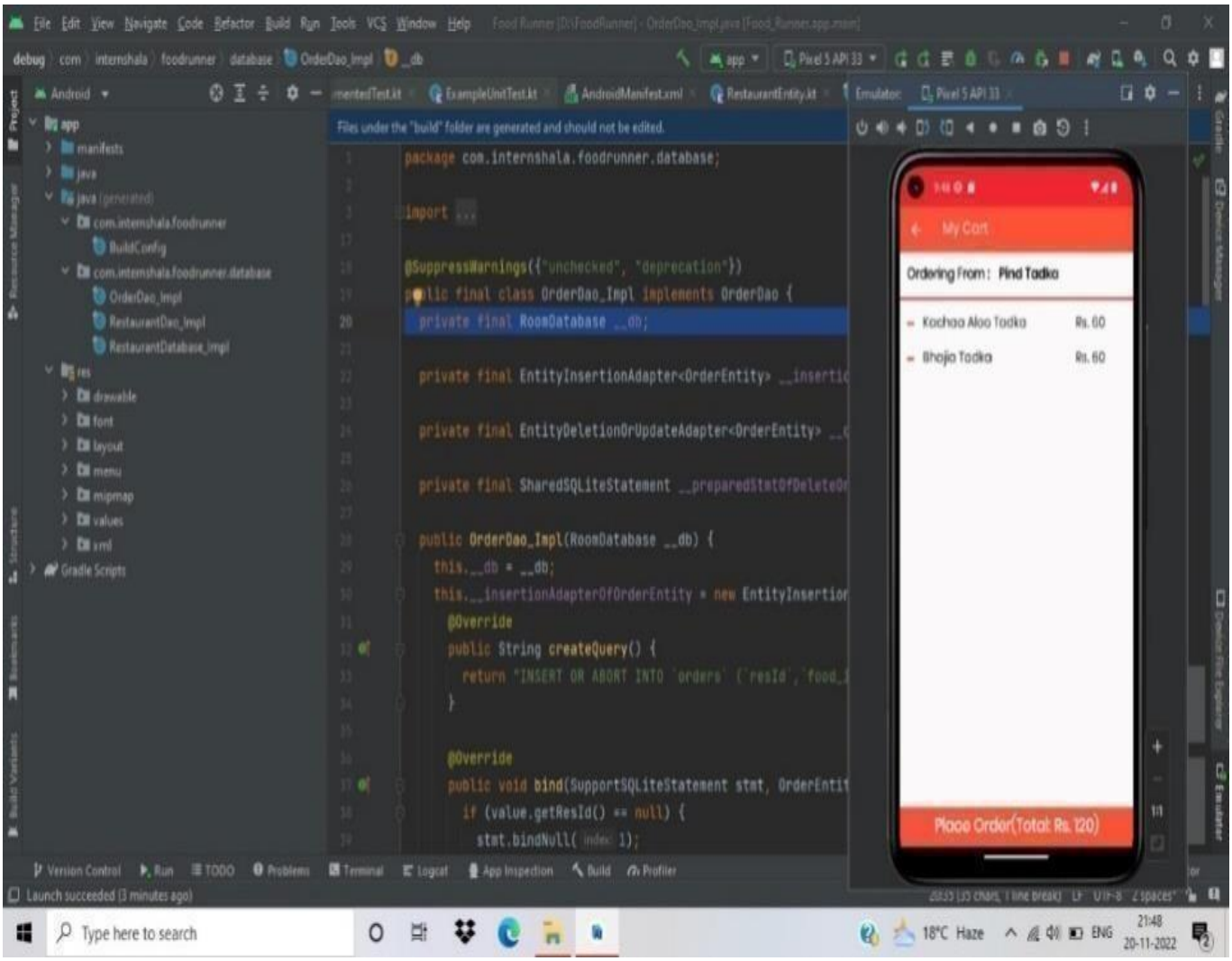

Figure 5.9.5: PAYMENT PAGE

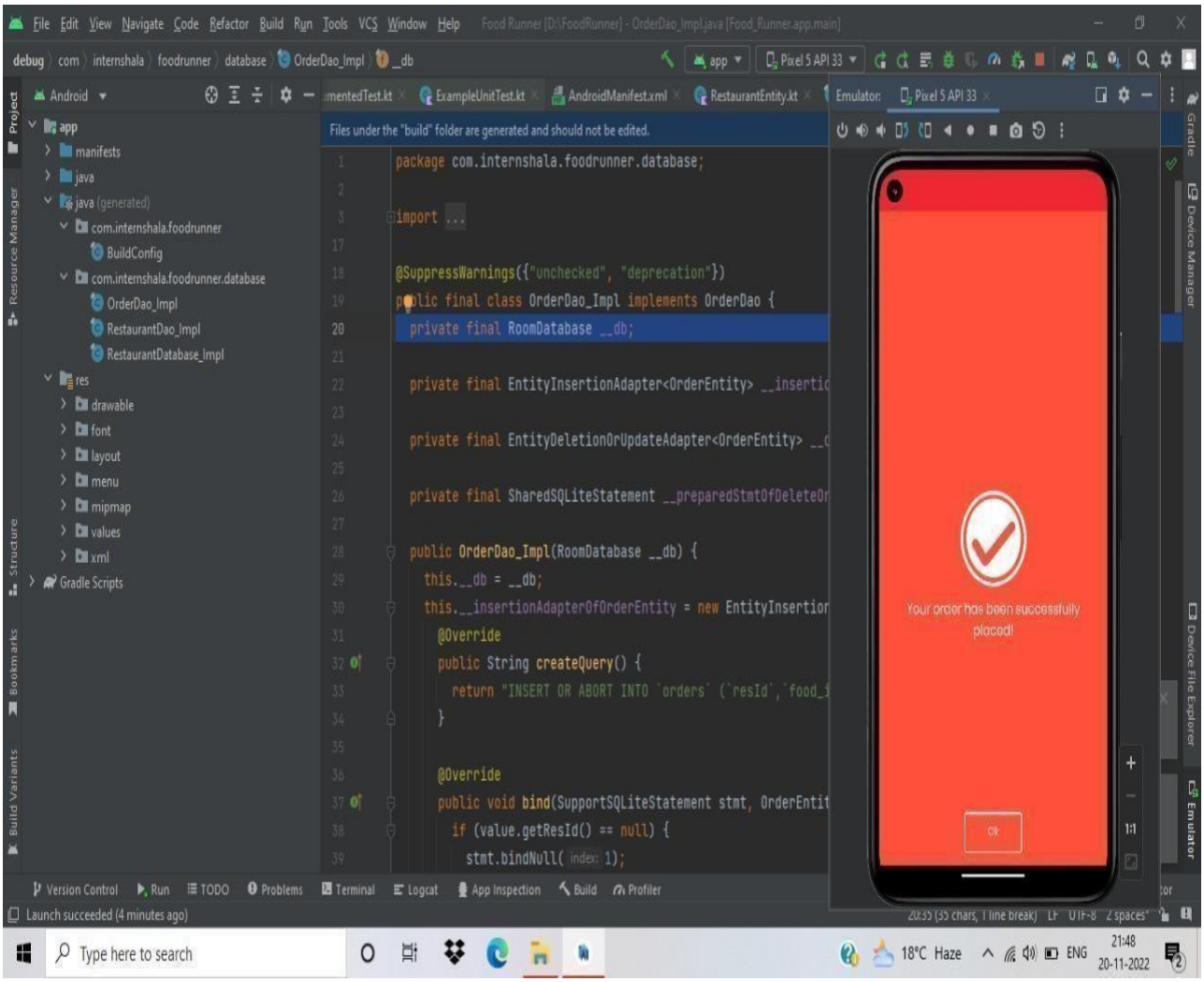

Figure 5.9.6: ORDER PLACED PAGE

CHAPTER 6
DEVELOPMENT ANDIMPLEMENTATION

6.1 DEVELOPMENT PLAN (ARCHITECTURE DIAGRAM)

Figure 6.1 Agile Development

Here we have a step-by-step plan for app Development Process:

- **Creating a roadmap**
  You have to understand the direction of the project and establish the goals and purposes of the web application.

- **Define the target audience.**
  Prepare the analytics report with the following information: type of audience, age, gender, education; web access capabilities of the audience; the level of security and quantitative audience stats.

- **Create a detailed functional specification document.**
  It is used to eliminate any confusion in the future, a functional specifications document lists all the technical specifications and functionalities of a application which is to be developed.

- **Deciding on outsourcing**

  Android application development is often cost-effective and faster when outsourced.

- **Selecting Technology**

  On this stage you need to define the platform, technology, environment, structure, and framework. Don't forget about the project timeline which has to be decided on the same stage (as far as it largely depends on technology).

- **Designing Layout and Interface**

  Here a visual guide or a simple UI sketch must be created. Once the interface and interaction models are approved, the design is implemented.

- **App development**

  First, do the application's architecture and framework, design its database structure. Then you have to develop or customize the module, classes, and libraries, and implement all the functionalities mentioned in the specifications.

- **Testing**

  That includes QA testing and bug fixing. A application must be put through the paces, and all suitable testing techniques must be employed, including load testing, stress testing, performance testing, usability testing etc.

CHAPTER 7
TESTING

7.1 INTRODUCTION

App Testing in simple terms is checking your application for potential bugs before its made live or before code is moved into the production environment. During this stage issues such as that of application security, the functioning of the app, its accessto handicapped as well as regular users and its ability to handle traffic is checked. Android application testing, a software testing technique exclusively adopted to test the applications that are hosted on web in which the Test planning, the most important activity to ensure that there is initially a list of tasks and milestones in a baseline plan to track the progress of the project. It also defines the size of the test effort. It is the main document often called as master test plan or a project test plan and usually developed during the early phase of the project. Here we have some plan activities.

- To determine the scope and the risks that need to betested and that are NOT to be tested.
- Documenting Test Strategy.
- Making sure that the testing activities have been included.
- Deciding Entry and Exit criteria.
- Evaluating the test estimate.
- Planning when and how to test and deciding how the test results will be evaluated and defining test exit criterion.
- The Test artefacts delivered as part of test execution.

- Defining the management information, including the metrics required and defect resolution and riskissues.
- Ensuring that the test documentation generates repeatable test assets.

7.1.1 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. The main aim is to isolate each unit of the system to identify, analyze and fix the defects. There are many advantages of Unit Testing.

- Reduces Defects in the newly developed features or reduces bugs when changing theexisting functionality.
- Reduces Cost of Testing as defects are captured in very early phase.
- Unit Tests, when integrated with build gives the quality of the buildas well.

7.1.2 SYSTEM TESTING

System Testing (ST) is a black box testing technique performed to evaluate the complete system the system's compliance against specified requirements. In System testing, the functionalities of the system are tested from an end-to-end perspective.

System Testing is usually carried out by a team that is independent of the development team in order to measure the quality of the system unbiased. It includes both functional and Non-Functional testing.

7.1.3 INTEGRATING TESTING

Data integrity corresponds to the quality of data in the databases and to the level by which users examine data quality, integrity, and reliability. and functions as expected within a given application. Characteristics of Integrating Testing and given below

7.1.3.1 Checking whether a blank value or default value can be retrieved from the database.

7.1.3.2 Validating each value if it is successfully saved to the database.

7.1.3.3 Ensuring the data compatibility against old hardwareor old versions of operating systems.

7.1.3.4 Verifying the data in data tables can be modified and deleted.

7.1.3.5 Running data tests for all data files, including clip art, tutorials, templates, etc.

7.1.4 USER ACCEPTANCE TESTING

User acceptance testing, a testing methodology where the clients/end users involved in testing the product to validate the product against their requirements. It is performed at client location at developer's site. For industry such as medicine or aviation industry, contract and regulatory compliance testing and operational acceptance testing is also carried out as part of user acceptance testing. UAT is context dependent and the UAT plans are prepared based on the requirements and NOT mandatory to execute all kinds of user acceptance tests and even coordinated and contributed by testing team.

7.2 TEST CASES

A test case is a document, which has a set of test data, preconditions, expected results and post conditions, developed for a particular test scenario to verify compliance against a specific requirement. Test Case acts as the starting point for the test execution, and after applying a set of input values, the application has a definitive outcome and leaves the system at some end point or also known as execution post condition.

7.3 RESULTS

Result reporting is a mechanism with which the state of the product is presented to the customer from various angles. Format of the Report varies from time to time as mentioned below:

- Stages of testing in the Development Model.
- Targeted Audience.
- Testing technique adopted.
- Type of testing involved like Functional, Performance/Load/Stress, Disaster recovery, etc.

Test planning, the most important activity to ensure that there is initially a list of tasks and milestones in a baseline plan to track the progress of the project. It also defines the size of the test effort. It is the main document often called as master test plan or a project test plan and usually developed during the early phase of the project. Here we have some plan activities.

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- Reduces Defects in the newly developed features or reduces bugs when changing theexisting functionality.
- Reduces Cost of Testing as defects are captured in very early phase.
- Improves design and allows better refactoring of code.
- Unit Tests, when integrated with build gives the quality of the buildas well.

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Data integrity corresponds to the quality of data in the databases and to the level by which users examine data quality, integrity, and reliability. Data integrity testing verifies that the data in the database is accurate, and functions as expected within a given application. Characteristics of Integrating Testing and given below

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7.3.3.2 Validating each value if it is successfully saved to the database.

7.3.3.3 Ensuring the data compatibility against old hardware or old versions of operating systems.

7.3.3.4 Verifying the data in data tables can be modified and deleted.

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7.5 RESULTS

Result reporting is a mechanism with which the state of the product is presented to the customer from various angles. Format of the Report varies from time to time as mentioned below:

- Stages of testing in the Development Model.
- Targeted Audience.
- Testing technique adopted.
- Type of testing involved like Functional, Performance/Load/Stress, Disaster recovery, etc.

Test Case Title: Log-in

Test case 1: Log-in	**Priority (H, L):** High
Test Objective: For Log-in	
Test Description: "User enters the required fields, presses Log-in button", It must contact the database, and database updates and sends result to the user.	
Requirements Verified: Yes	
Test Environment: Application must be in running state, Database Should contain appropriate table and connection must be established between application and database.	
Test Setup/Pre-Conditions: Application should be in running state. All the mandatory fields must be entered.	
Actions	**Expected Results**
The admin will Log-in to access application.	"Log-in successfully", Displays Main Menu.
Pass: Yes, **Conditions pass: Yes** **Fail**: No	
Problems / Issues: NIL	
Notes: Successfully Executed	

Table 7.1

Test Case Title: CustomerRegistration

Test case 2: User Registration	**Priority (H, L):** High
Test Objective: For Verifying User Registration	
Test Description: "User selects the required options."	
Requirements Verified: Yes	
Test Environment: Application must be in running state, Database Should contain appropriate table and connection must be established between application and database.	
Test Setup/Pre-Conditions: Application should be in running state. All mandatory fields must be entered.	
Actions	**Expected Results**
The user will register to access application.	"Registered Successfully" Display Menu.
Pass: Yes **Conditions pass: Yes** **Fail**: No	
Problems / Issues: NIL	
Notes: Successfully Executed	

Table 7.2

Test Case Title: View Details

Test case 3: Viewing details	**Priority (H, L):** High
Test Objective: For Viewing Details	
Test Description: "User selects the required option from the Menu; Application connects with the database, database updates and sends result to the user.	
Requirements Verified: Yes	
Test Environment: Application must be in running state, Database Should contain appropriate table and connection must be established between application and database.	
Test Setup/Pre-Conditions: Application should be in running state. The user must have to select one of the options.	
Actions	**Expected Results**
The user will Log-in to access application.	Displays Details.
Pass: Yes **Conditions pass: Yes** **Fail**: No	
Problems / Issues: NIL	
Notes: Successfully Executed	

Table 7.3

Test Case Title: View/Order Foodstuff

Test case 3: Viewing/Ordering Food stuff	**Priority (H, L):** High
Test Objective: For Viewing and Ordering Food stuff	
Test Description: "User selects the required option from the Menu; Application connects with the database, database updates and sends result to the user.	
Requirements Verified: Yes	
Test Environment: Application must be in running state, Database Should contain appropriate table and connection must be established between application and database.	
Test Setup/Pre-Conditions: Application should be in running state. The user must haveto select one ofthe options.	
Actions	**Expected Results**
The user will Log-in to access application.	Displays Food stuff to View Or Order.
Pass: Yes **Conditions pass: Yes** **Fail**: No	
Problems / Issues: NIL	
Notes: Successfully Executed	

Table 7.4

7.6 REPORT

Reporting test execution results is very important part of testing, whenever test execution cycle is complete, tester should make a complete test results report which includes the Test Pass/Fail status of the test cycle.

If manual testing is done then the test pass/fail result should be captured in an excel sheet and if automation testing is done using automation tool then the KOTLIN or XML reports should be provided to stakeholders as test deliverable.

CHAPTER 8
CONCLUSION AND FUTUTE WORK

7.1 CONCLUSION

People's life is getting busier with every passing moment, especially in the metropolitan & surrounding areas. To keep upwith the hectic schedule, they need quick, reliable, & anytime- anywhere assistance for various day-to-day tasks. Online food ordering & delivery marketplace has been a promising business idea from the start. And it is evident from the success of the first generation of online food ordering startups like Food Panda, Grub Hub, Eat24, and others. However, amid the torrent of new online business ideas, which are sprouting all over the application, the sector hasn't received the attention it deserves from aspiring entrepreneurs. As a result, many parts of it remain unexplored.

7.2 FUTURE WORK

This system is a bunch of benefits from various point of views. As this online application enables the end users to register to the system online, select the food items of their choice from the menu list, and order food online. It is developed to help restaurants to simplify their daily operational and managerial task as well as improve the dining experience of customers. And also helps restaurant develop healthy customer relationships by providing good services. The system enables staff to let update and make changes to their food and beverage list information based on the orders placed and the orders completed. Worldwide, the market for food delivery stands at €83 billion, or 1 percent of the total food market and 4 percent of food soldthrough restaurants and fast-food chains. It has already maturedin most countries, with an overall annual growth rate estimated at just 3.5 per cent of the year.

CHAPTER 9
DEPLOY MENT

9.1 DEPLOYMENT PLAN

A Deployment Design characterizes the succession of activities or steps that must be conveyed to convey changes into an objective framework condition. The individual tasks inside a sending design can be executed physically or consequently. Organization designs are normally all around characterized and affirmed preceding the sending date. In circumstances where there is a high potential danger of disappointment in the objective framework condition, arrangement designs may practice guaranteeing there are no issues amid real organization. Organized repeatable arrangements are likewise prime contender for robotization which drives quality and proficiency. As it is a application so its deployment is not so difficult, the client who is using this just need a standard android version to run it once it can uploaded on web server online by purchasing domain and then it can accessed online.

9.2 IMPLEMENTATION

The implementation stage of software development is the process of converting a system specification into an executable system. It almost always involves processes of software design and programming. In other words, it is a process of converting system requirements into program codes.

It is also important to check that whether the application is matching the requirements of the user or not and whether it is compatible with the other applications that are already running in the market.

CHAPTER 10
REFERENCES

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