MOBILE BASED ONLINE RESTAURANT RESERVATION SYSTEM

PROJECT REPORT

Submitted by

SATHISH KUMAR.P	**18DI30**
SHAHUL HAMEED.T	**18DI31**
THARUN.K.C	**18DI38**

Under the guidance of

Mrs. G. Preethi

In partial fulfillment of the requirement for the award of

DIPLOMA IN INFORMATION TECHNOLOGY

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DEPARTMENT OF INFORMATION TECHNOLOGY PSG POLYTECHNIC COLLEGE

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COIMBATORE – 641 004

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CERTIFICATE

SATHISH KUMAR.P	**18DI30**
SHAHUL HAMEED.T	**18DI31**
THARUN.K.C	**18DI38**

This is to certify that the Project report entitled

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of the State Board of Technical Education,

Government of Tamil Nadu.

during the academic year 2020-2021

Faculty guide Head of the Department

Certified that the candidate was examined by us in the Project work viva-voce examination held on …….

Internal Examiner External Examiner

ACKNOWLEDGEMENT

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We are ineffably indebted to our Principal for giving us this opportunity and encouraging us to accomplish this project.

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Any omission in this brief acknowledgement does not mean lack of gratitude.

ABSTRACT

All the restaurants presently run a manual reservation system and as customers are desirous to find a handy application for reservation of tables or any other services to avoid physical walking to the hotel or contacting by call or reserving through a middle man. Current research was aimed to design a client/server application for table reservation and online booking system. Mobile Based Online Restaurant Reservation System (MORRS) that can effectively improve their restaurant table reservation system in order to provide direct access of every user to the management. It has given the benefits of effective booking corridor or to hold their accessible table with holding up through an android application. The concept of mobile based online reservation system using android application, is that can be used by customer to choose their desired table, at their desired time and No. of seats. This proposed system to provide service facility to restaurant and also to the customer. Main objective is to provide ordering and reservation service to the customer.

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CHAPTER 1
INTRODUCTION

1.1 INTRODUCTION

Restaurant is a place where people pay to sit and eat meals that are cooked and served on the premises. In traditional restaurant system orders are taken by a waiter and they bring the food when it is ready. After eating the food customers will pay the bill. This system relies on large numbers of manpower to handle customer reservation, inquiry about them, ordering food, placing order on table, reminding dishes of customer. Therefore, how to effectively improve the service quality for customers by using advanced technologies has received much attention in recent years. “Intelligent Restaurant” it’s all about getting all of your different touch-points working together-connected, sharing information, personalizing experiences and speeding processes.

Mobile Based Online Restaurant Reservation System (MORRS) is an android application that applies in a restaurant. This paper replacing pen-paper which is used by waiter to take an order. In this Application, the restaurants use a Graphical User Interface (GUI) programmed by “XML” to select table and food ordering system. Manual table reservation is ending up progressively in well-known restaurants as now a day’s people are getting into digital era of reservation of restaurants, and supplier are considering while to choose a digital system of booking, the booking of a table on online for dining and it is used to save your time. A table reservation system for any restaurant should have full perceivability and control of their seating plans with a full graphical view, that can access by the customers at a specific date and time by sitting at any place through use of mobile application. They can also cancel the booking or ordered foods in online if they not needed. It contains multiple of restaurants and it also contain each restaurant’s menu for serving.

It helps us to avoid from waiting for food and confusion on selecting a table on that time. For better accessibility online payment is available. The administrator can keep track of the details of booking tables and foods. Some people consider it a pain to go the restaurant because of sheer amount of time required to find a good table sometimes. Our system aims to redefine this structure by bringing everything to customer. With the mobile based online restaurant reservation system, you can create a customized booking process, let people book a table through our android application.

1.2 SCOPE OF THE PROJECT

The proposed system is a software solution for users to easily select table and select food. the customers to place their orders and to find free tables according to their required number of seats. MORRS app will enable the user to access and manage the arrangements of table and food. When the new orders come in, some general information about the new order will be inputted such as item from menu, table number, time and date. The system is also free from risk of being intercepted by unauthorized person because before gaining access in the system, it is required to log onto the system by entering username, and alphanumeric password.

CHAPTER 2
LITERATURE SURVEY

(i)

Title: RESTARUANT TABLE RESERVATION SYSYTEM USING ANDRIOD MOBILE APPLICATION(RTRSMA)

Author: Shaziariaz, Amnanisar.

Year: 2018

Description:

The Key of paper was to allow the management administration and employees of restaurant to grip the customers to place their orders and to find free tables. According to their required No. of seats. RTRSMA app will enable the user to access and manage the arrangement of the tables and foods. The general objective of RTRSMA was to built up reservation system for table reservations to assist worker's with solving basic issue with menu reservation system.

(ii)

Title: DESIGN AND IMPLEMENT AN ONLINE RESTAURANT RESERVATION SYSTEM

Author: Acheampong Samuel

Year: 2018

Description:

As stated earlier, customers basically order food or reserve tables by means of their PCs, mobile devices as well as other portable devices such as tablets. Customers order food using computers via browsers like Mozilla Firefox or via custom apps. This basically is the main trend with regards to food ordering and table reservation in the restaurant industry. In spite of consumer demand, restaurants' use of technology remains in its infancy hence, the use of technology in the restaurant industry is expected to gain dominance and recognition in the future.

(iii)

Title: DIGITAL TABLE BOOKING AND FOOD ORDERING SYSTEM USING ANDROID APPLICATION **Author:** Surabhi Thakar, Prajakta Kulkarni, Rasika Thorat.

Year: 2014

Description:

In This paper, some form of static menu is utilized to convey the available food and beverage choices to customers. Said menus are generally photo based and hence impose restrictions on the textual real estate available and the ability a restaurateur has to update them.

This application specifies the requirements for a restaurant digital menu and ordering replacement strategy to alleviate the problems associated with the current archaic method. Three related concepts are encompassed by the general scope of the Restaurant Menu and Ordering System. The first pertains to the replacement of photo menus using an electronic format, the second relates and the third surrounds the process of transferring said electronic orders to the kitchen for preparation. It should be noted that while the suggested strategy incorporates the use of various hardware components, the primary focus of the presented SRS relates to the constituent software elements. The following are the features which can be a part of the proposed system: Ordering, Waiting, Billing, Table Reservation, Home Delivery, KOT, and Advertisement.

(iv)

Title: RESTAURANT RESERVATION MANAGEMENT CONSIDERING TABLE COMBINATION

Year: 2018

Author: Qing Miao, Xiubin B. Wang **Description:**

This paper conducts a study for table reservation in the restaurant business based on the practices at Walt Disney World. The Disney theme park area restaurants have seen a significant increase of demand in recent years. Restaurants are often booked out well before the dining hours. Often parties of high revenue potentials are declined upon arrival because the seating capacity has been occupied by earlier arriving customers. Managing the increasing demand, pricing and table utilization is critical to the restaurant business profitability.

(v)

Title: RESTAURANT BOOKING AND ORDERING SYSTEM

Year: 2017

Author: Shubham Rawool, Shrideep Pujari, Vaishali Bodade.

Description:

We propose to build a software project that can efficiently handle and manage various activities of a restaurant and all these activities will be happening under the supervision of the administrator. The businesses in restaurants are now growing constantly. At the same time, the need for managing its operations and tasks arises. The best way to optimize these activities is growing the business online as well. Today's generation encourages high-tech services especially over the Internet. Hence the project is developed proficiently to help restaurant owners automate their business operations. This project serves the best way of maintaining customer's information and caters their needs.

2.2 DRAWBACKS OF EXISTING SYSTEM

In this existing system, it was a web-based application and paper based. The menus which are accessible on the restaurant is paper based. The request which has taken by the server is on paper based and the bill created finally is also on paper based. There is a lot wastage of paper and time. The bills may confuse of others. Sometimes given order is missed to tell to the chef. There is no view of table's size and seating. The waiter who is taking the food order may miss the items.

CHAPTER 3 DESIGN OF THE PROPOSED SYSTEM

3.1 MODULES OF THE APPLICATION

- **Menu Module**

  In this module, it contains Login page for both Customers & the Admin of the restaurant. The front end of the application which is user interface is developed using the XML. And the back end of the application which is working of all the functions like buttons is developed using Java. This module introduces into application.

- **Reservation Module**

  In this reservation module, the list of the restaurant is shown in this, here you can choose restaurant and with images of the tables for the particular restaurant, which the user selects.

- **Payment Module**

  In this module, the customer is directed here after successfully selection of the restaurant and the table, we have made three payment options GPay, PhonePe and PAR is known Payment at Restaurant. For security purpose we also added two options which is Custom Pin and the One Time Password (OTP).

- **Confirmation module**

  In this module, after the completion of user activity, the booking details are sent to the Admin page which is in the hand of the restaurant management they can decide to accept the order or decline the order.

- **Admin Module**

  In this module, the restaurant can add their images of the tables and can add their food Menu with an image of the food, a view order list is placed to see the bookings done by the customer.

3.2 WORKING PRINCIPLE

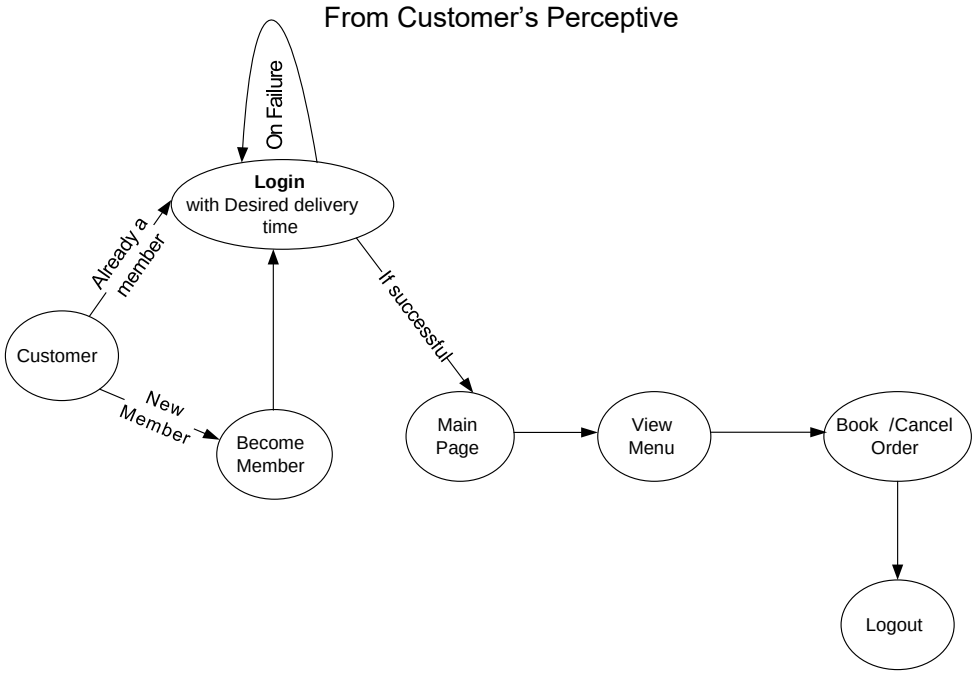

Fig.3.1: Flow of the Restaurant reservation systems for Customer side

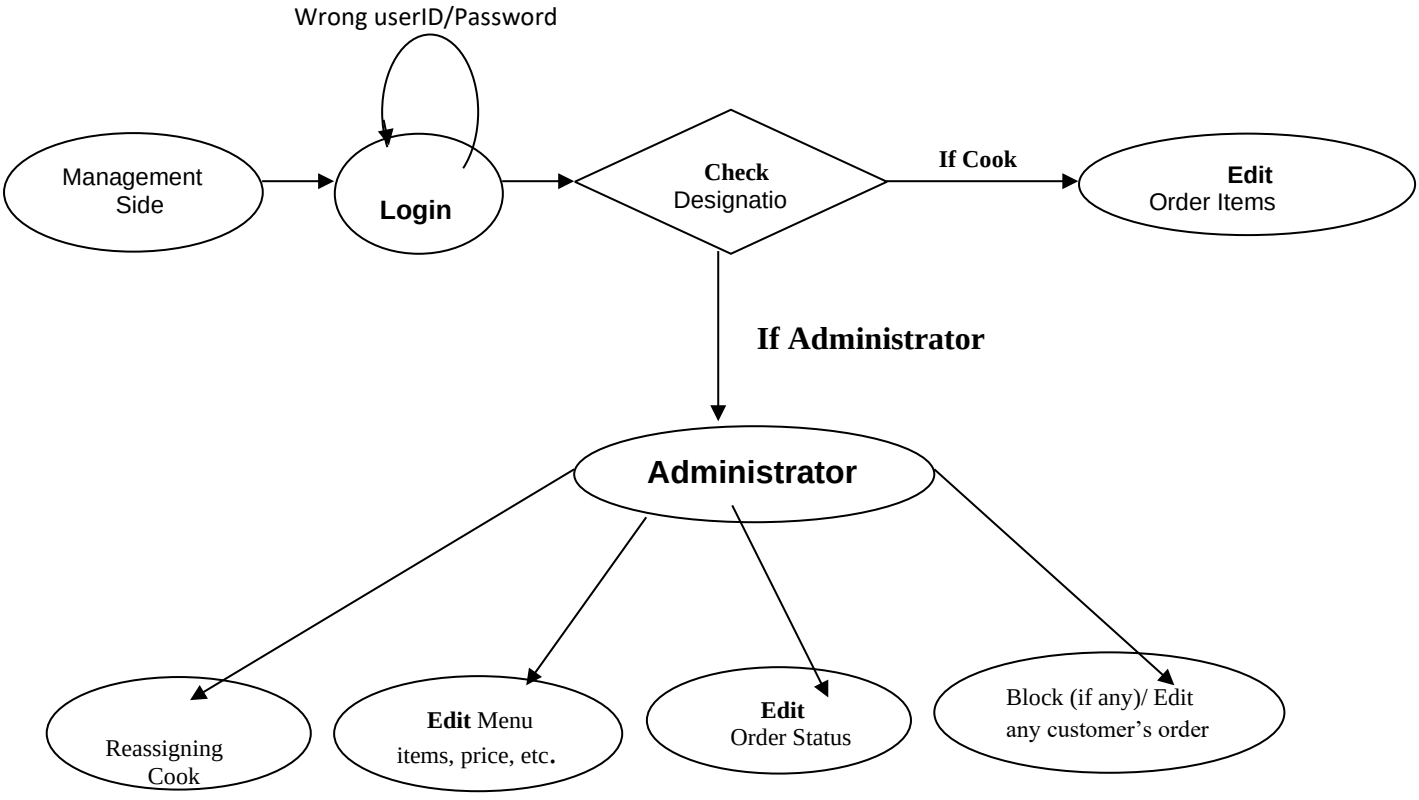

Fig.3.2: Flow of the Restaurant reservation system for Admin side

This system consists of Android application that can be used by employees in a restaurant to handle the clients, their orders and can help them easily find free tables or place orders.

3.2.1 Customer: -

New user or customer on our system, first they need to sign up by using their phone number. They need to create new username and password for login purpose. If they already signed up, they can use their existing login credentials. If given password or username is wrong, it comes back again, to the login page to re-enter correctly.

3.2.2 Customer Ordering: -

After login the main page, is which contains list of restaurants to select the restaurant. After selecting restaurant, view of the menu is shown to order the food. Then they are given a choice to choose the table, and there is a table view in multiple angles. They need to select date and time for dine-in, to the restaurant. At the end, is the payment it is available on both, cash at restaurant and also on online payment.

Target Area: - This system will be placed on customer's, android phone as an application.

3.2.3 Management of The Restaurant: -

A person is from the restaurant side, who will manage the reservation. This type of user will also do maintenance and control the application of this system. The person assigned from the restaurant side, takes up the responsibility to a new customer, new waiter, new menu into database, and etc.

Target Area: -This system will be placed at restaurant.

3.3 ADVANTAGES OF THE PROPOSED SYSTEM

The new proposed system consists of missing features of the existing system. You can select your table with the view of the table. And also, payment option with Two options: 1. Pay on online, 2. Pay on restaurant. You can select your required number of seats and Tables. It supports on android platform. You can change the bookings or can also cancel the order.

3.4 HARDWARE AND SOFTWARE SPECIFICATION

3.4.1 Hardware Specifications

- Development environment hardware specification:

- Processor : Intel Core i5
- Memory (RAM) : 6GB
- Hard disk : 500GB
- Operating System : Windows 10

- Deployment environment hardware specification:
  - Processor : Snapdragon
  - Operating System : Andriod
  - Memory (RAM) : 4 or 6 GB
  - Hard disk : 16GB

3.4.2 Software Specification

- Development environment of software specification:
  - Operating system : Windows 10
  - IDE : Android Studio
  - Plug-in : ADT plug-in
  - AVD used : Huawei P20 Pro
  - API (or) SDK used : API 23**:** Andriod 6
  - Front End : JAVA/XML
  - Back End : SQLite database
- Deployment environment of software specification:
  - Operating system : Android Phones
  - Version : Android 8 (or) Higher

3.5 COST OF THE SYSTEM

The cost of the components that are used in the project is mentioned below

S.NO	DESCRIPTION	QUANTITY	PRICE (IN. Rs)
1	Android application	1	12500
		Total	12500

Table.3.1**:** Estimation of project

CHAPTER 4 TECHNOLOGY USED & SYSTEM TESTING

4.1 TECHNOLOGY USED

This project can be implemented only in JAVA because Android supports only JAVA for user applications.

JAVA

Java is Platform Independent. Java is an object-oriented programming language developed initially by James Gosling and colleagues at Sun Microsystems. It implements a strong security model, which prevents compiled Java programs from illicitly accessing resources on the system where they execute or on the network. Popular World-Wide Web browsers, as well as some World-Wide Web servers and other systems implement Java interpreters. These are used to display interactive user interfaces, and to script behavior on these systems.

ANDROID

Android is a complete set of software for mobile devices such as tablet computers, smart phones, electronic book readers, notebooks, set-top boxes etc. It contains a Linux-based OS, middleware and key mobile applications. It can be thought of as a mobile operating system. But it is not limited to mobile only. It is currently used in mobiles, tablets, televisions etc.

SQLITE

SQLite is a relational database management system (RDBMS) contained in a C library. In contrast to many other database management systems, SQLite is not a client–server database engine. Rather, it is embedded into the end program.

SQLite is ACID-compliant and implements most of the SQL standard, generally following PostgreSQL syntax. However, SQLite uses a dynamically and weakly typed SQL syntax that does not guarantee domain integrity. This means that one can, for example, insert a string into a column defined as an integer. SQLite will attempt to convert data between formats where appropriate, the string "123" into an integer in this case, but does not guarantee such conversions, and will store the data as-is if such a conversion is not possible.

SQLite is a popular choice as embedded database software for local/client storage in application software such as web browsers. It is arguably the most widely deployed database engine, as it

is used today by several widespread browsers, operating systems, and embedded systems (such as mobile phones), among others. SQLite has bindings to many programming languages.

FEATURES OF SQLITE

- Zero-Configuration.
- Serverless.
- Single Database File.
- Stable Cross-Platform Database File.
- Compact.
- Manifest typing.
- Variable-length records.
- Readable source code.

XML

- XML is a mark-up language for documents containing structured information.
- Structured information contains both content (words, pictures, etc.) and some indication of what role that content plays (for example, content in a section heading has a different meaning from content in a footnote, which means something different than content in a figure caption or content in a database table, etc.).
- Almost all documents have some structure.
- A mark-up language is a mechanism to identify structures in a document. The XML specification defines a standard way to add mark-up to documents.

ANDROID STUDIO

Android Studio is the official IDE for android application development. It works based on **IntelliJ IDEA**, you can download the latest version of android studio from Android Studio 2.2 Download, if you are new to installing Android Studio on windows, you will find a file, which is named as android-studio-bundle-143.3101438-windows.exe.So just download and run-on windows machine according to android studio wizard guideline.

If you are installing Android Studio on Mac or Linux, you can download the latest version from Download, or Android Studio Linux Download, check the instructions provided along with the downloaded file for Mac OS and Linux. This tutorial will consider that you are going to setup your environment on Windows machine having Windows 8.1 operating system. Android App Development is mostly done in two IDE i.e., Eclipse and Android Studio. Earlier Eclipse was

the popular IDE but now Android Studio has taken over it. This is because Google has ended the support for Eclipse and now only focused on Android Studio. Google also recommended developer to import their Android projects and use Android Studio.

At present, more than 76.6% of the Smartphone's, including HTC, LG and Samsung Models use Android as their operating system (OS), and expecting that Android will be in smart watches, laptops, car very soon. Android powered devices including tablets have become the foremost need of all the tech-savvy people across the world and the prime reason is it provides an open-source platform for the development of great apps plus allows app developers to immediately publish them. Instead, lots of developers want to get associated with Android application because of incredible growth.

Gradle Integration

Android Studio uses the quick growing Gradle build system that is so integrated, and Gradle is really a great tool. If you have decided to go with Eclipse than yet say to look at Gradle's features and try it out and see if it fits with your project. In case you want to go with Android Studio, no need to worry about being stuck with Gradle system because it is really good. Eclipse uses Apache Ant as its prime build system that is an extremely robust XML based build system and lots of Java developers have been already familiar with it.

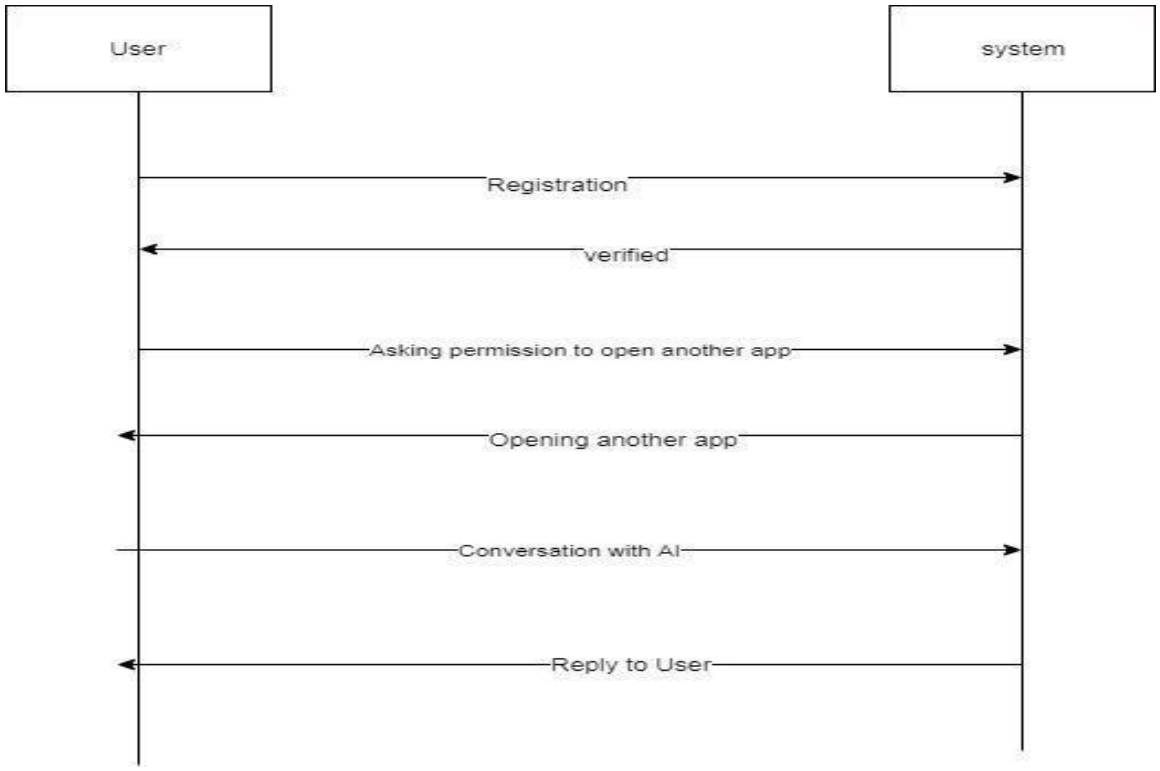

Fig.4.1: Gradle Integration

Advanced Code Completion

Both Android Studio and Eclipse feature the typical Java code auto completion. But we usually found that the code completion is really better on AS compare to Eclipse which looks to get a bit perplexed at times and doesn't provide precise results most of the time. Keep in mind, the more time you will spend as a programmer grinding out code, the more you value code completion.

User Interface (UI)

We know Eclipse interface and quirks very well, It is big and somewhat overwhelmed, but we have to face it because most IDEs are overwhelming when you use them first time. So, keeping this in mind and found that the tools and menu items in Android Studio tend to get me where we want to be a little more promptly and effortlessly than their counterparts in Eclipse. In addition, AS was built purposely for Android, while Eclipse was built to all-purpose IDE that can be used with any language and platform.

Organization of Project

Although, both IDEs work in a different way to help you manage and organize your projects, but when you want to work on many projects in Eclipse you need to merge them into a workspace. In an attempt to switch to a different workspace, you have to choose the path, after that Eclipse restarts and this always looked awkward. Additionally. On the other side, Android Studio uses modules to manage and organize your code modules have their own Gradle build files which mean it can state their own dependencies. In compare AS looks more natural, but if you have been using Eclipse for some time, then it takes a little bit time to get used to.

4.2 SYSTEM TESTING

4.2.1 TESTING OBJECTIVES:

Testing is a set of activities that can be planned in advance and conducted systematically. For this reason, a template for software testing, a set of steps into which can place specific test case design techniques and testing methods should be defined for software process. Testing often accounts for more effort than any other software engineering activity. If it is conducted haphazardly, time is wasted, unnecessary effort is expanded, and even worse,

errors sneak through undetected. It would therefore seem reasonable to establish a systematic strategy for testing software

4.2.2 TYPES OF TESTING:

Unit Testing:

The primary goal of unit testing is to take the smallest piece of testable software in the application, isolate it from the remainder of the code, and determine whether it behaves exactly as you expect.

Each unit is tested separately before integrating them into modules to test the interfaces between modules. Unit testing has proven its value in that a large percentage of defects are identified during its use. In the company as well as seeker registration form, the zero-length username and password are given and checked. Also, the duplicate username is given and checked.

In the job and question entry, the button will send data to the server only if the clientside validations are made. The dates are entered in wrong manner and checked. Wrong emailid and web site URL (Universal Resource Locator) is given and checked.

Integration Testing:

Testing is done for each module. After testing all the modules, the modules are integrated and testing of the final system is done with the test data, specially designed to show that the system will operate successfully in all its aspects conditions.

Thus, the system testing is a confirmation that all is correct and an opportunity to show the user that the system works.

Validation Testing:

The final step involves Validation testing, which determines whether the software function as the user expected. The end-user rather than the system developer conduct this test most software developers as a process called “Alpha and Beta were testing” to uncover that only the end user seems able to find.

The compilation of the entire project is based on the full satisfaction of the end users. In the project, validation testing is made in various forms. In question entry form, the correct answer only will be accepted in the answer box. The answers other than the four given choices will not be accepted.

4.2.3 TESTING STRATEGIES:

A number of software testing strategies have been proposed in the literature. All provide the software developer with a template for testing and all have the following generic characteristics:

- Testing begins at the component level and works “outward” toward the integration of the entire computer-based system.
- Different testing techniques are appropriate at different points in time.
- The developer of the s/w conducts testing and for large projects, independent test group.

White Box Testing

It is just the vice versa of the Black Box testing. They do not watch the internal variables during testing. This gives clear idea about what is going on during execution of the system. The point at which the bug occurs were all clear and were removed.

Black Box Testing

In this testing we give input to the system and test the output. Here i do not go for watching the internal file in the system and what are the changes made on them for the required output.

Interface Testing

The Interface Testing is performed to verify the interfaces between sub modules while performing integration of sub modules aiding master module recursively.

Module Testing

Module Testing is a process of testing the system, module by module. It includes the various inputs given, outputs produced and their correctness. By testing in this method, we would be very clear of all the bugs that have occurred.

4.3 FEASIBILITY STUDY

A feasibility study is carried out to select the best system that meets performance requirements. The main aim of the feasibility study activity is to determine whether it would be financially and technically feasible to develop the product. The feasibility study activity

involves the analysis of the problem and collection of all relevant information relating to the product such as the different data items which would be input to the system, the processing required to be carried out on these data, the output data required to be produced by the system as well as various constraints on the behavior of the system.

Technical Feasibility

This is concerned with specifying equipment and software that will successfully satisfy the user requirement. The technical needs of the system may vary considerably, but might include:

- The facility to produce outputs in a given time.
- Response time under certain conditions.
- Ability to process a certain volume of transaction at a particular speed.
- Facility to communicate data to distant locations.

In examining technical feasibility, configuration of the system is given more importance than the actual make of hardware. The configuration should give the complete picture about the system's requirements: How many workstations are required, how these units are interconnected so that they could operate and communicate smoothly? And what speeds of input and output should be achieved at particular quality of printing.

Economic Feasibility

Economic analysis is the most frequently used technique for evaluating the effectiveness of a proposed system. More commonly known as Cost / Benefit analysis, the procedure is to determine the benefits and savings that are expected from a proposed system and compare them with costs. If benefits outweigh costs, a decision is taken to design and implement the system. Otherwise, further justification or alternative in the proposed system will have to be made if it is to have a chance of being approved. This is an outgoing effort that improves in accuracy at each phase of the system life cycle.

Operational Feasibility

This is mainly related to human organizational and political aspects. The points to be considered are:

- What changes will be brought with the system?
- What organizational structure are disturbed?
- What new skills will be required?
- Do the existing staff members have? These skills?

- If not, can they be trained in due course of time?

This feasibility study is carried out by a small group of people who are familiar with information system technique and are skilled in system analysis and design process. Proposed projects are beneficial only if they can be turned into information system that will meet the operating requirements of the organization. This test of feasibility asks if the system will work when it is developed and installed.

4.4 PROGRAM EXECUTION ENVIRONMENT

ANDROID STUDIO WORKSPACE

From Fig 4.2 we can see that the android studio interfaces for the project implementation. We can see that the needful and useful extension, folder, and packages are perfectly imported and the program has aligned.

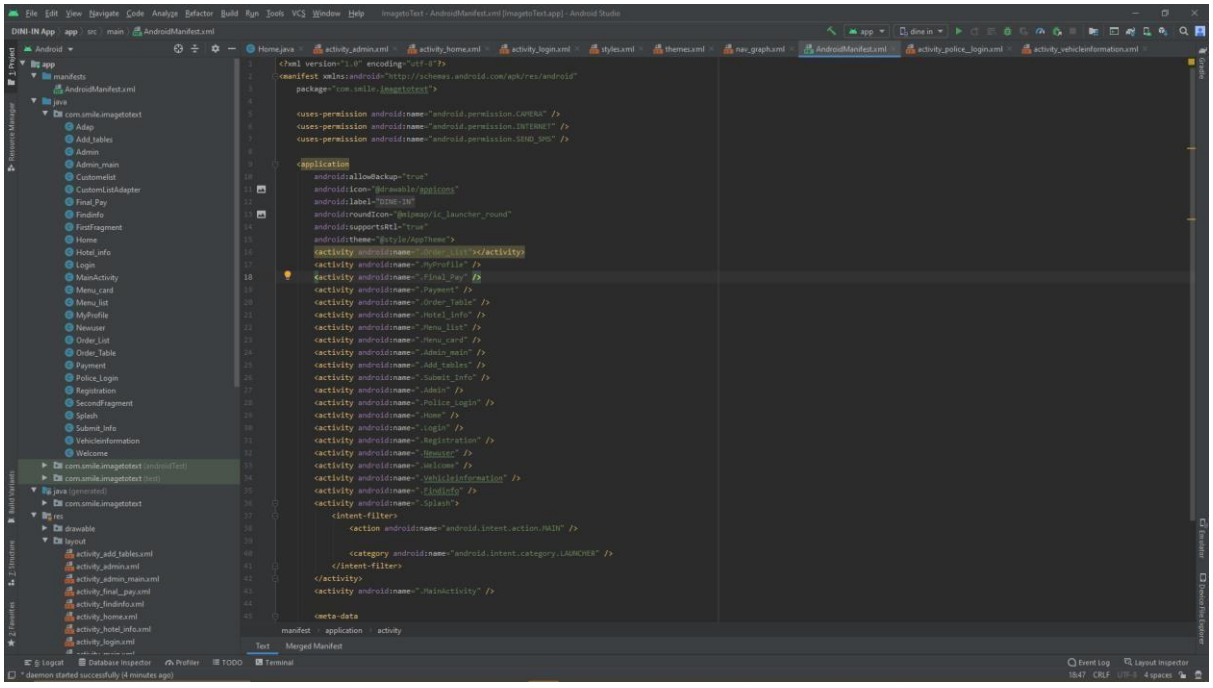

Fig.4.2**:** Andriod Studio Workspace

MAIN PROGRAMS

- From Fig 4.3, we can see that the main programs are expanded. In the AndriodMainfest section, we can see that the database classes and interfaces for the application.

- And in the res, layout section includes all the connecting pages and the listener for the main structure of the application program.

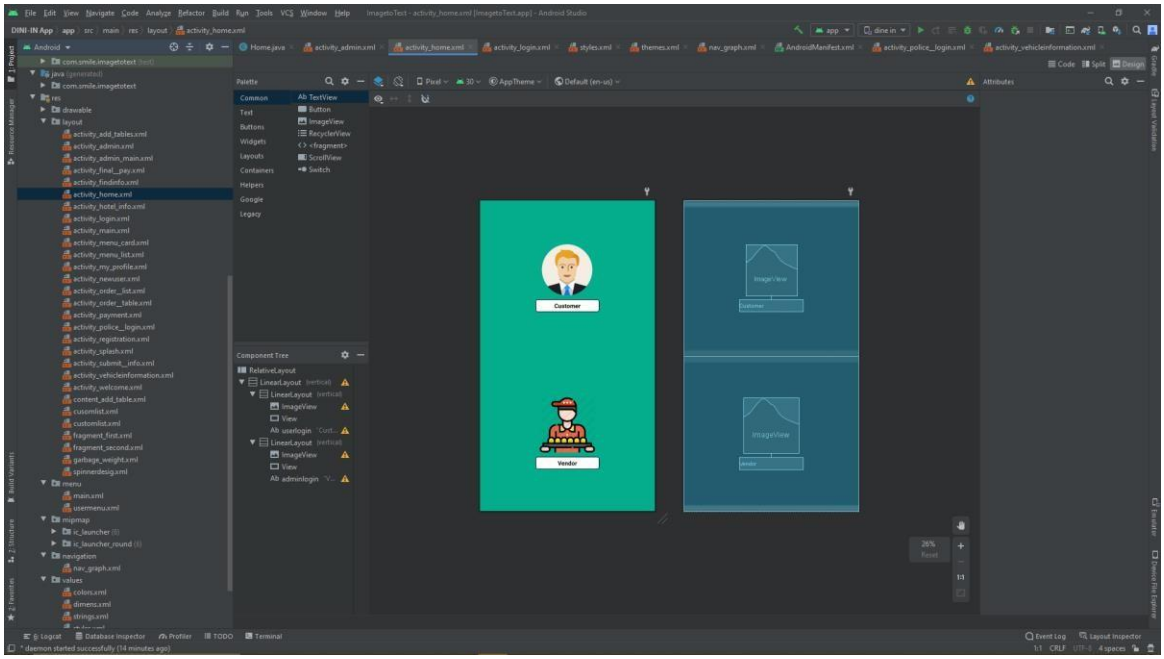

Fig.4.3**:** Main project layout

CHAPTER 5 IMPLEMENTATION & EXECUTION

5.1 IMPLEMENTATION OF MENU MODULE

APPLICATION ACCESS

- In this project, we need only one permission from the user that is "SMS" access.
- It is required for the “OTP” sent to the phone for the verification of user and for the payment confirmation.

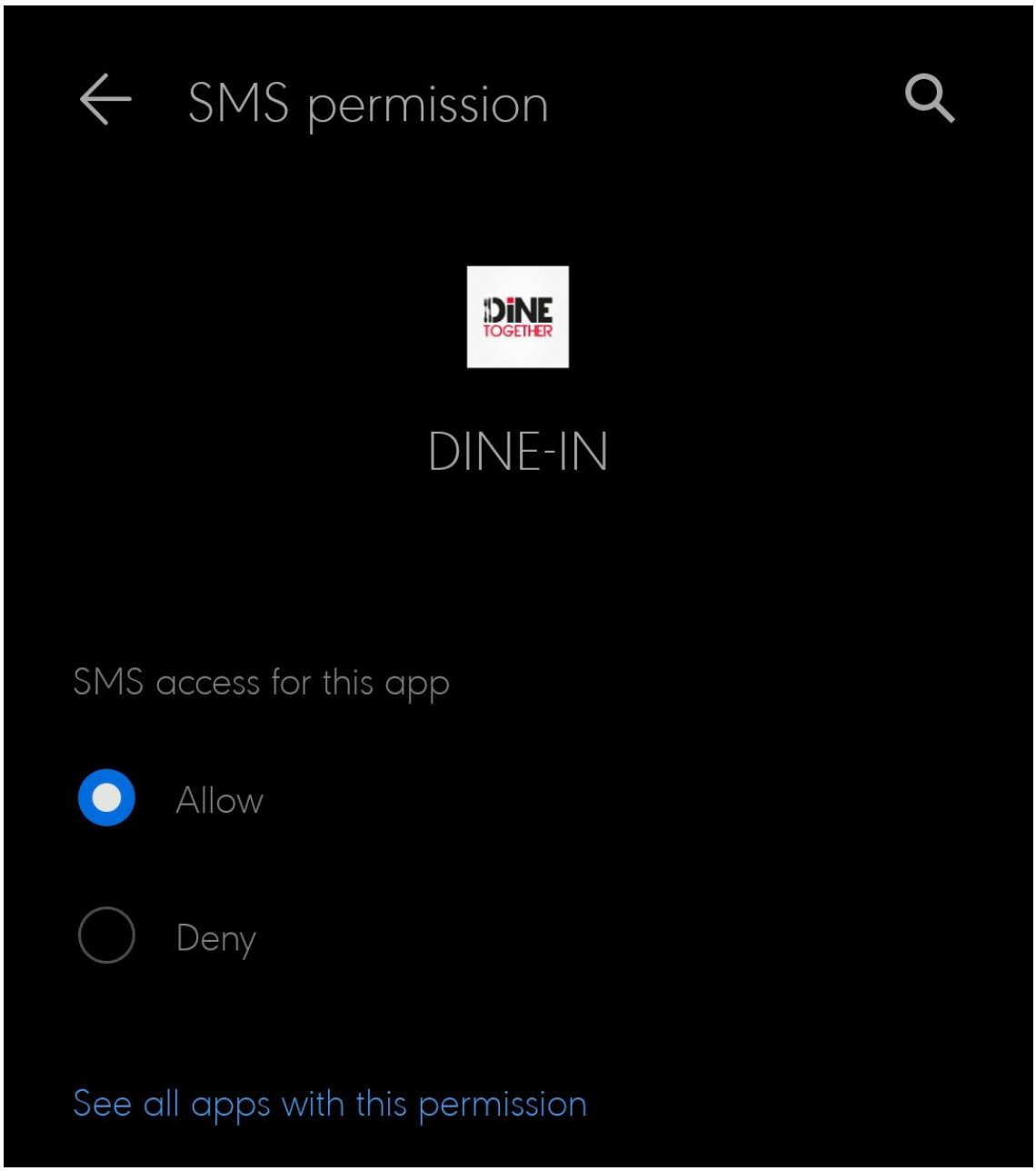

Fig.5.1: System Access Permission

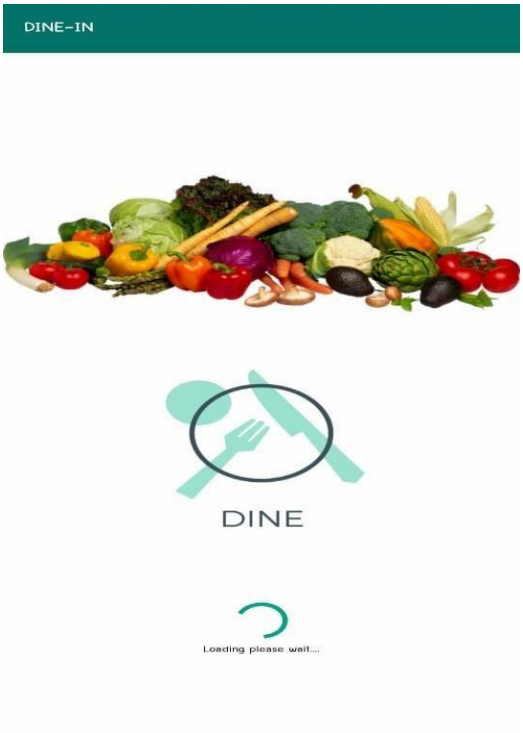

Fig.5.2: Loading UI

This is the user interface of the loading page shown in the Fig.5.2 that is when a user opens up the application for the first time it loads the application and then directed to next page of the application which is the login page Fig.5.3.

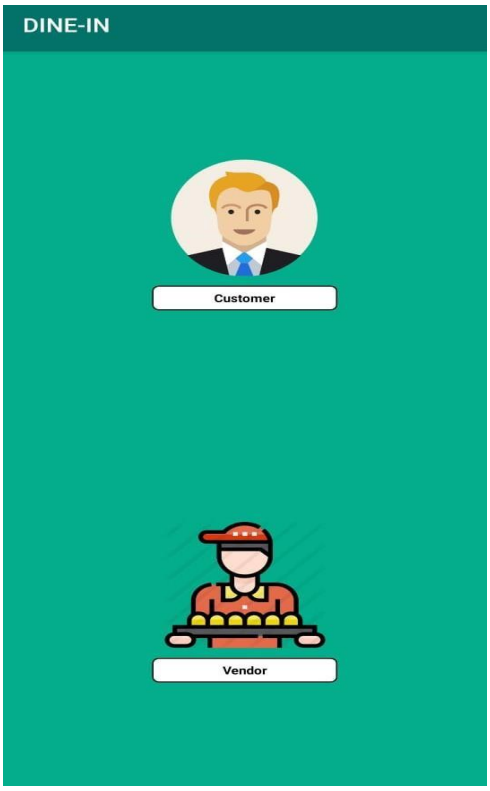

Fig.5.3**:** Login page UI

The Fig.5.3 login page with TWO user options 1. Customer and 2. Admin. And then select user type as per requirement, so then the application is directing the user to the selected respective pages.

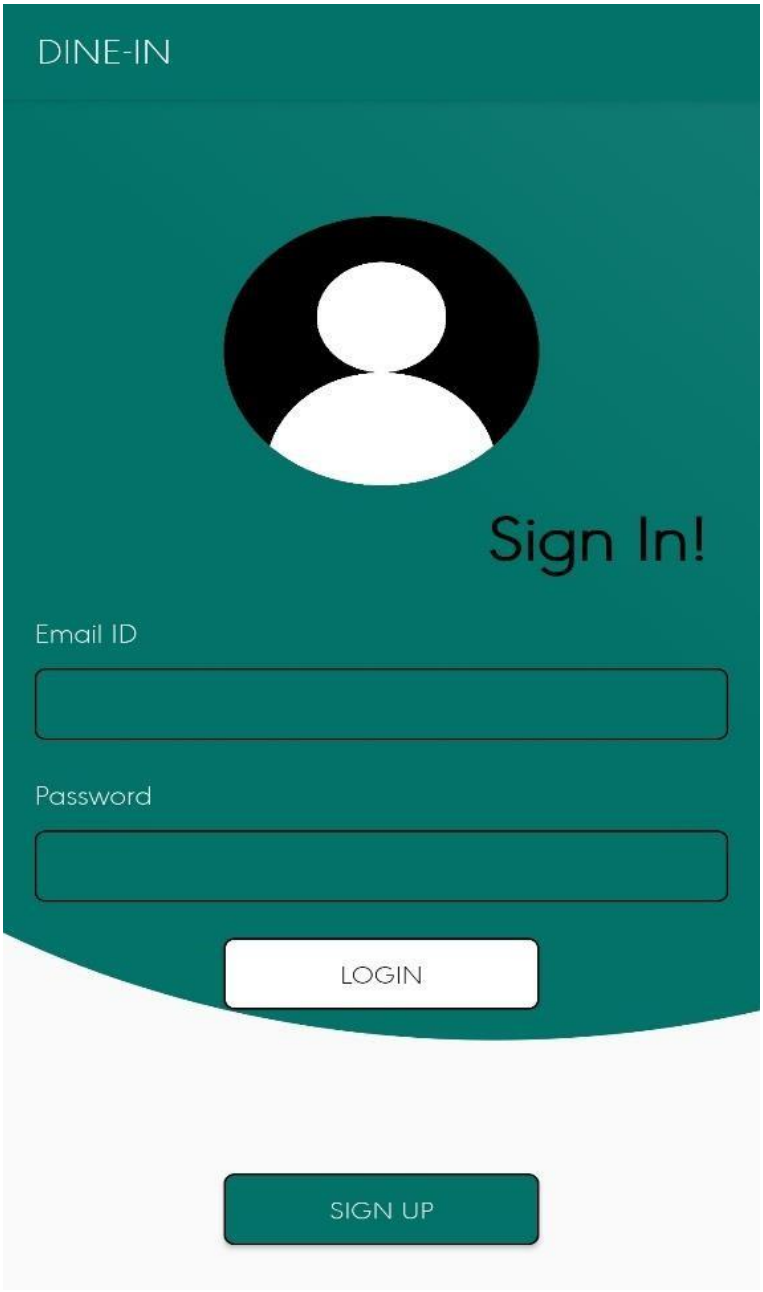

Fig.5.4**:** Customer login UI

The Fig.5.4 is customer login page which also includes signup for the new customer to create new account and then directed back to login page after successful creation of new account. After login the user directed to next page of the application which is restaurant list page.

Fig.5.5**:** Restaurants list UI

The Fig.5.5. shows the list of restaurant and then directed to next page of the application which is the reservation of tables.

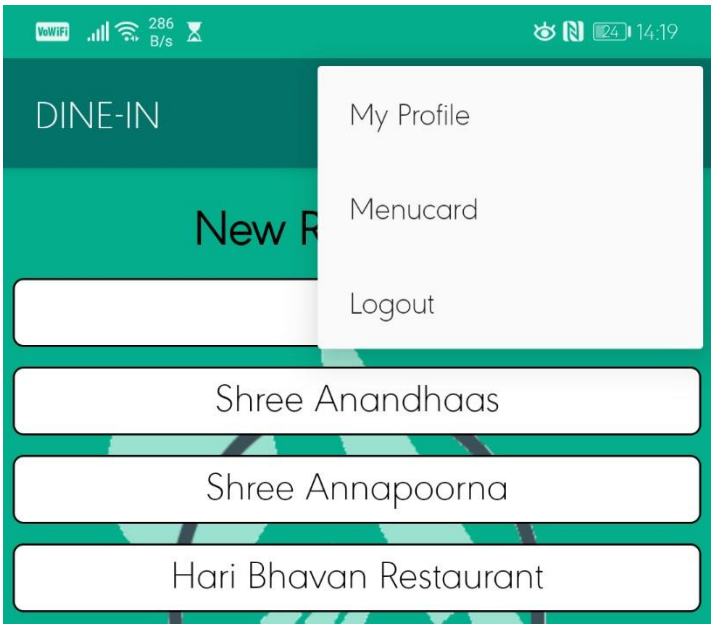

Fig.5.6**:** Options UI

The Fig.5.6. shows, On the top right corner of the application, placed a menu which consist of menu, logout, my profile.

5.2 IMPLEMENTATION OF RESERVATION MODULE

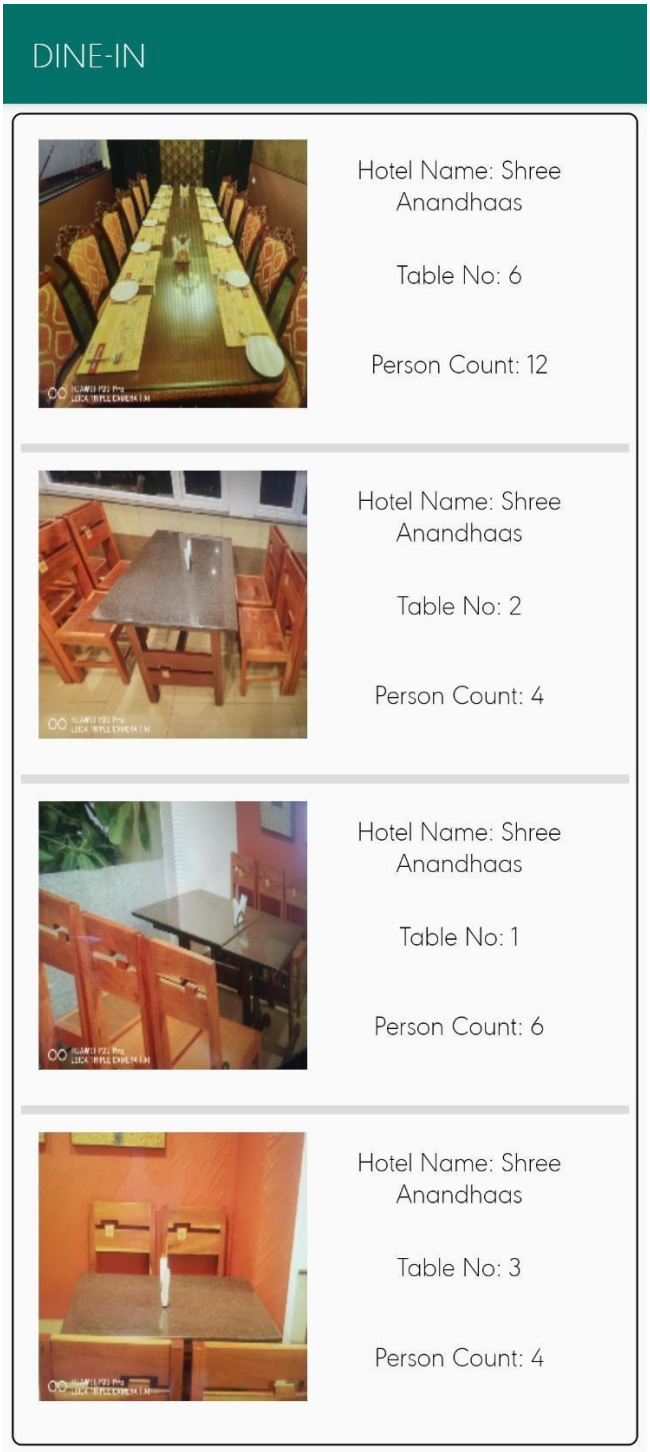

Fig.5.7**:** Tables UI

The Fig.5.7 shows table pictures of the “Shree Anandhaas” restaurant with the occupancies of person, the user can select their preferred table and then directed to next page of the application which is the Fig.5.8.

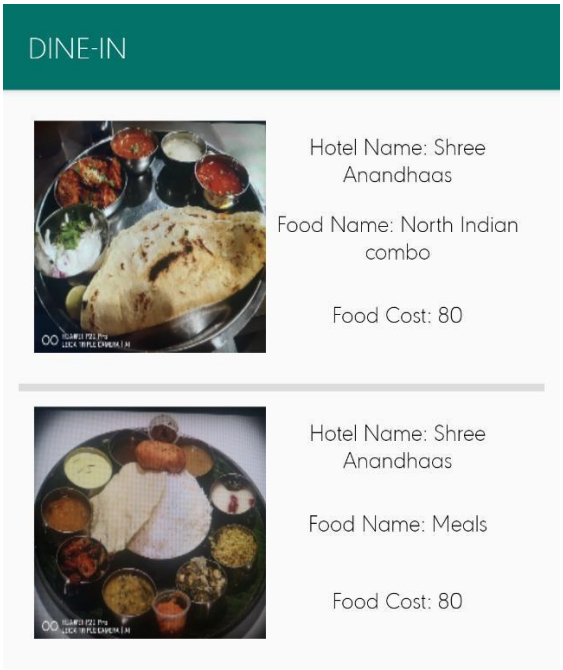

Fig.5.8**:** Menu Card UI

The Fig.5.8 shows the food menu of the restaurant “Shree Anandhaas”. And then the user to directed to next page of the application which is Book Your Table page.

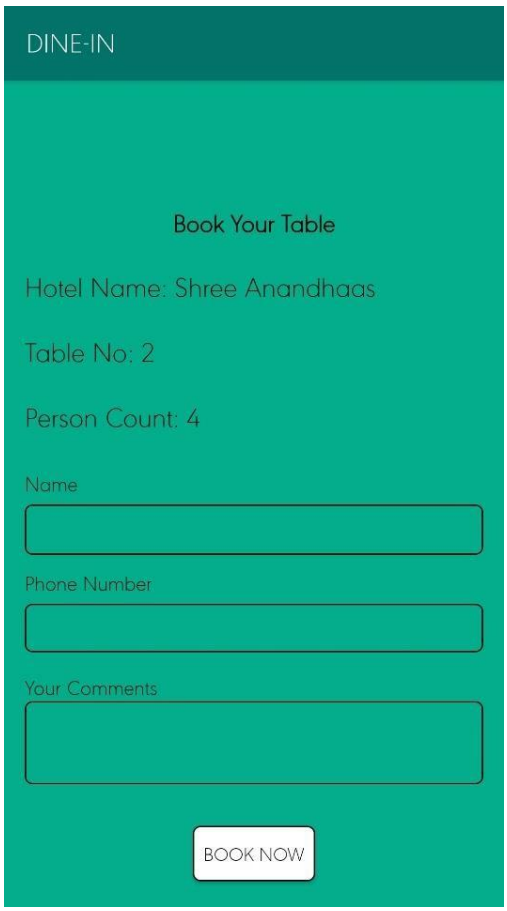

Fig.5.9**:** Reservation UI

The Fig.5.9 shows confirmation of the users selected table and to add contact number, Name of the user and then directed to the next page, payment page of the application.

5.3 IMPLEMENTATION OF PAYMENT MODULE

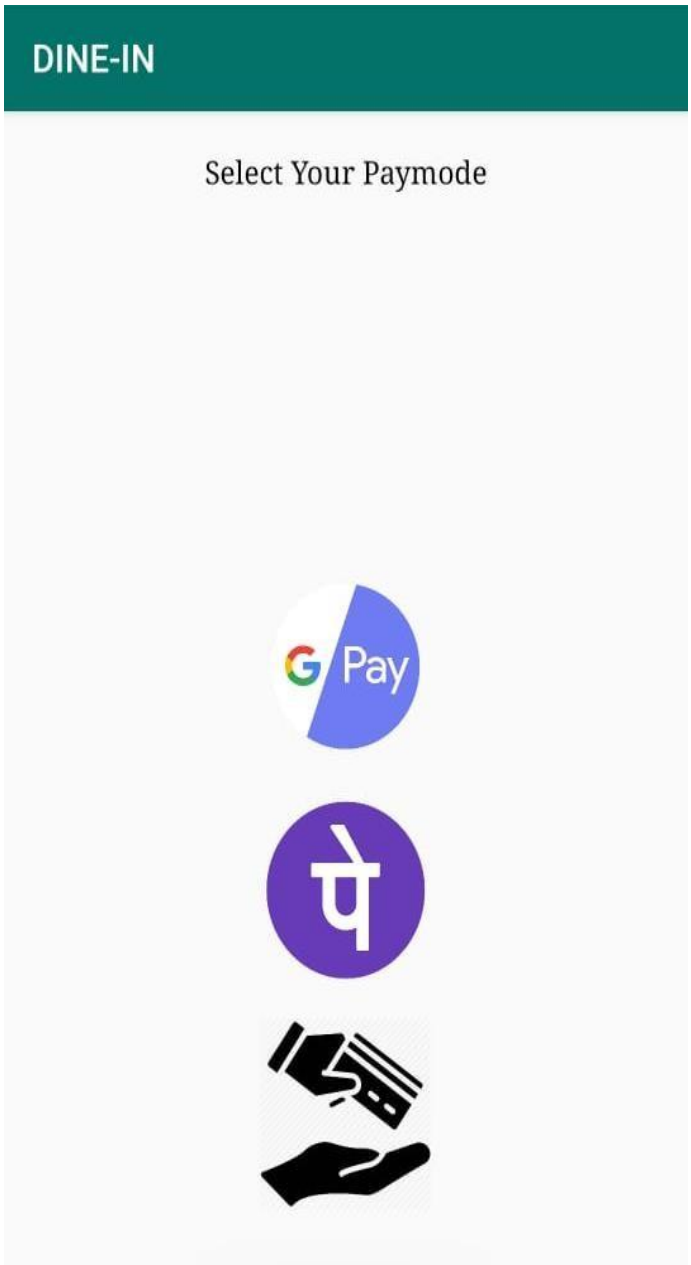

Fig.5.10**:** Pay Method UI

These are following steps user undergoes during payment first step Fig.5.10 here user is given option to select payment method GPay, PhonePe, and Pay at restaurant PAR.

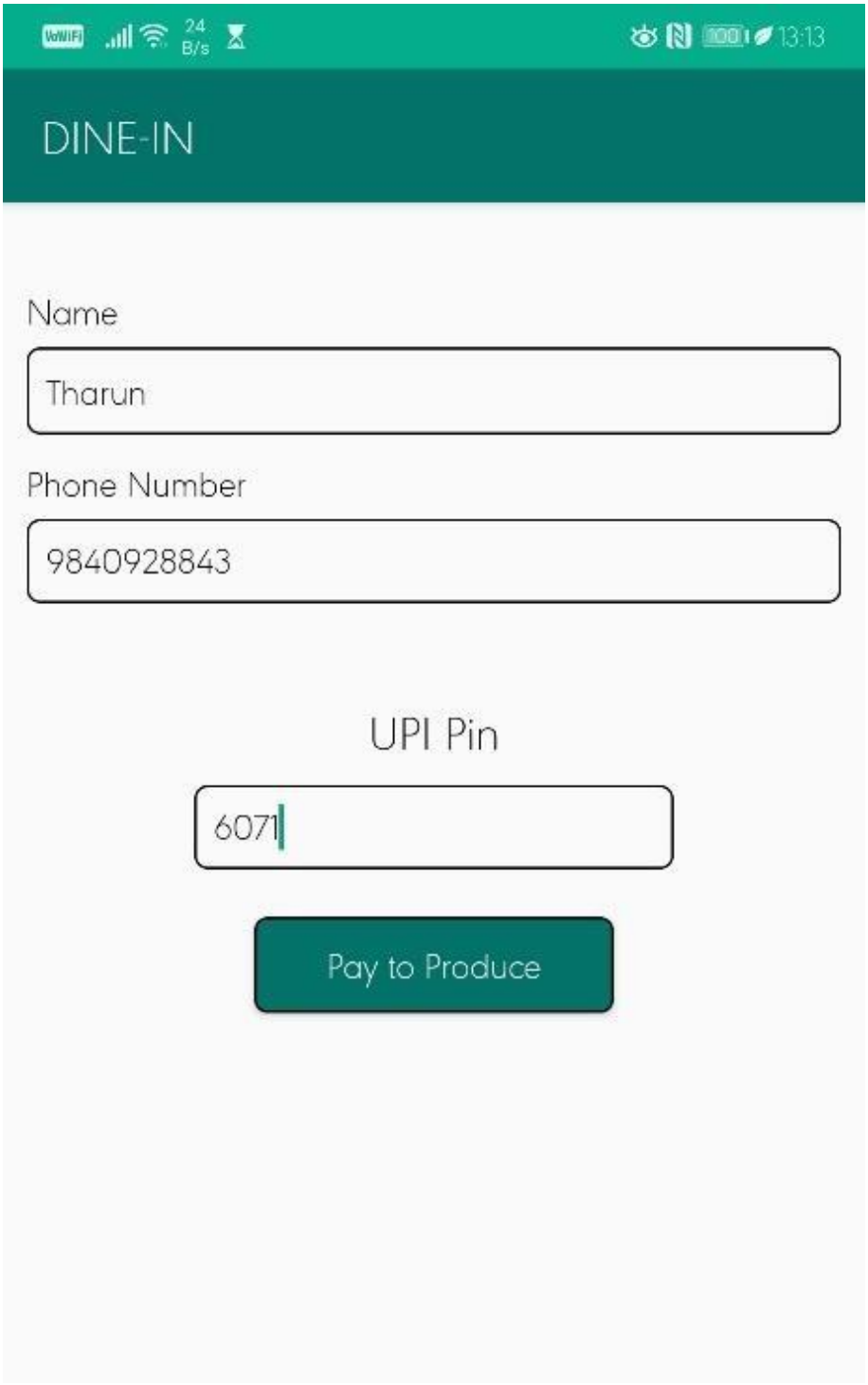

Fig.5.11**:** UPI Page UI

The Second step Fig.5.11 shows, if the user selected any one of the online payment methods directed to UPI page here the user enters their phone number and UPI pin, once the users click on the “Pay to produce”, the user is directed to the next part of payment as shown on (Fig.5.12).

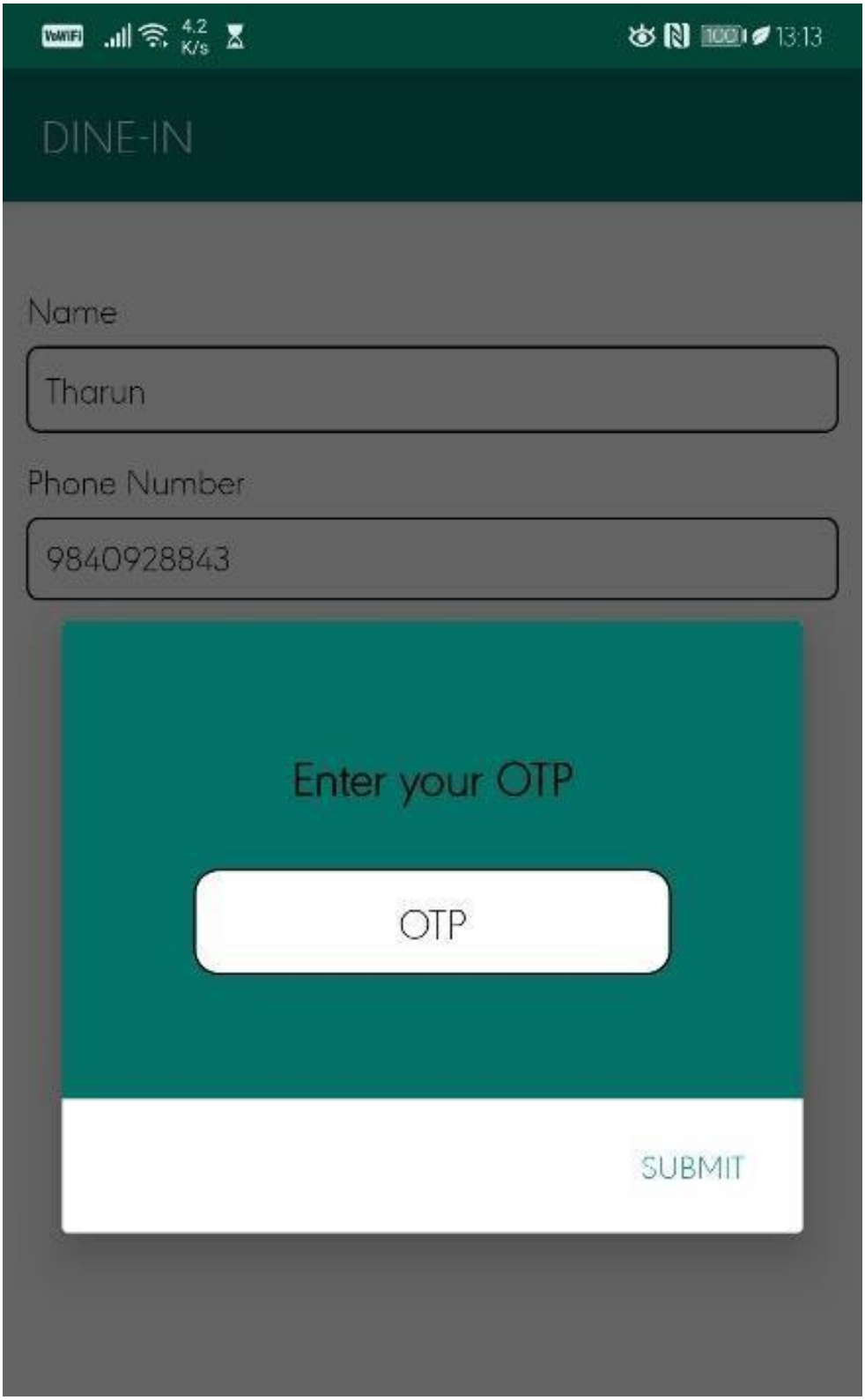

Fig.5.12**:** OTP UI

The Third step, the Fig.5.12 shows, the OTP box, to enter the OTP which is sent to the user, it can be placed on the OTP box as shown on (Fig.5.13) of the application.

Fig.5.13**:** OTP UI (2)

The Fig.5.13 shows the user receives the OTP through SMS, An OTP is sent to the user for paying for their booking of the table and then the user is directed to next page of the application which is Fig.5.14.

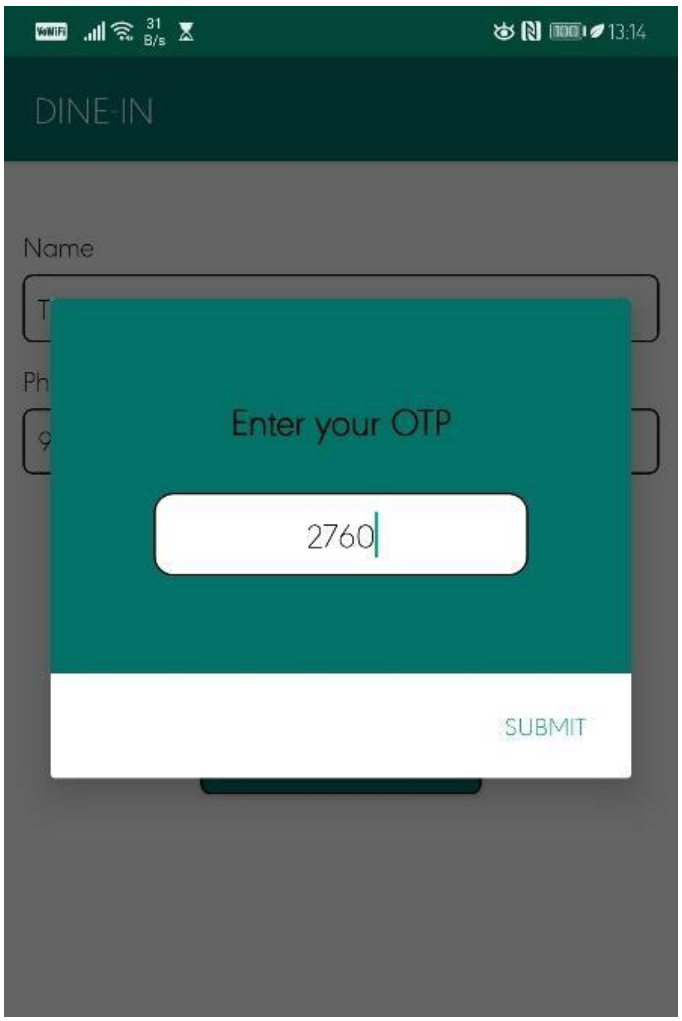

Fig.5.14**:** OTP UI (3)

The Fig.5.14. shows, the user enters the given “OTP” for the payment in the OTP box of the application, after the verification of the OTP the booking is finished and then the user receives the confirmation SMS, shown in Fig.5.15.

5.4 IMPLEMENTATION OF CONFIRMATION MODULE

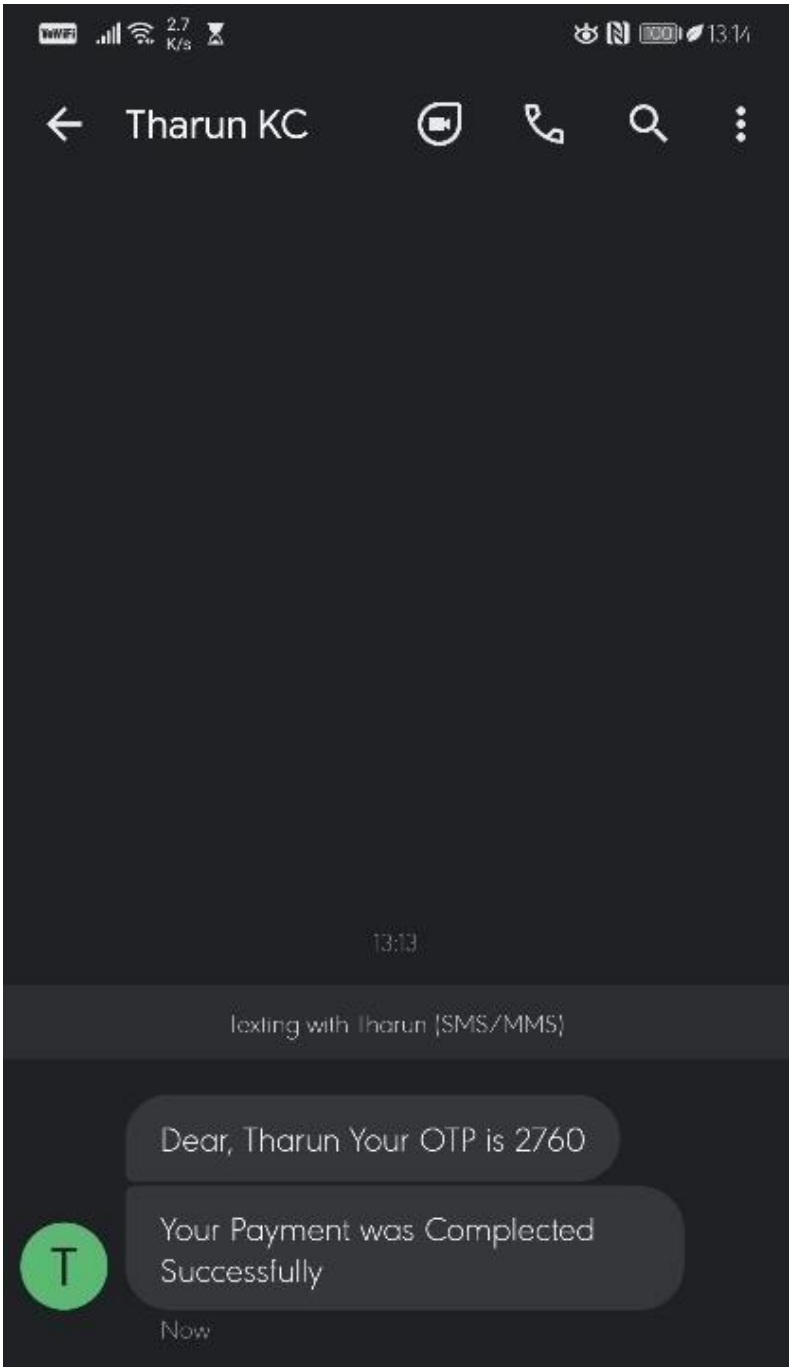

Fig.5.15: Confirmation UI

The Fig.5.15 shows, A confirmation message is sent to the users after the successful payment. The confirmation is sent to through SMS to the users register phone number.

5.5 IMPLEMENTATION OF ADMIN MODULE

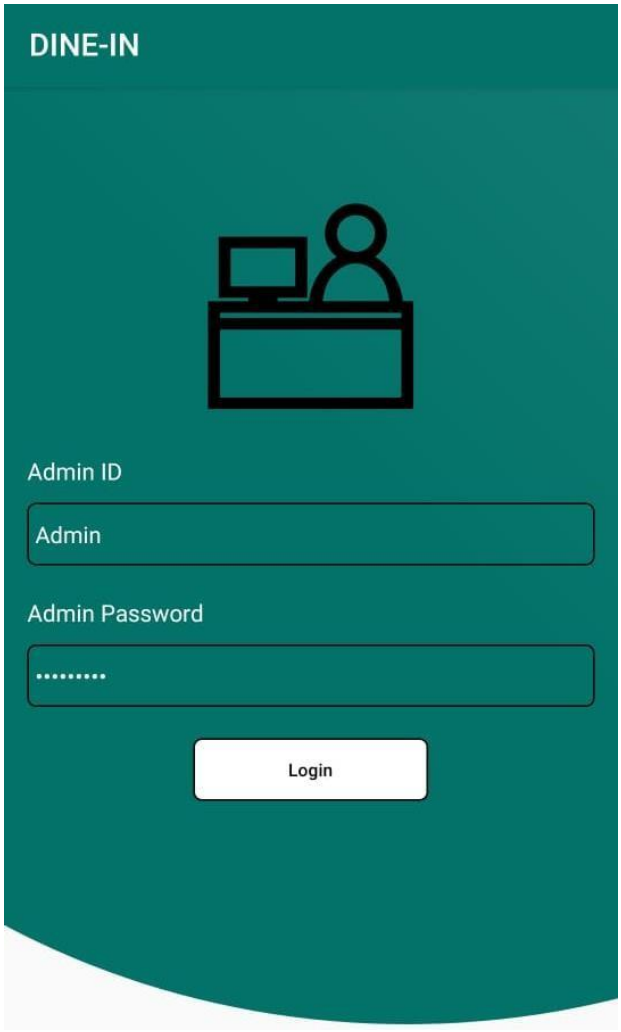

Fig.5.16: Admin login UI

The Fig.5.16 shows the login page for the Admin, the login details are already predefined for the Admin and then directed to next page of the application which is Main page of the Admin side.

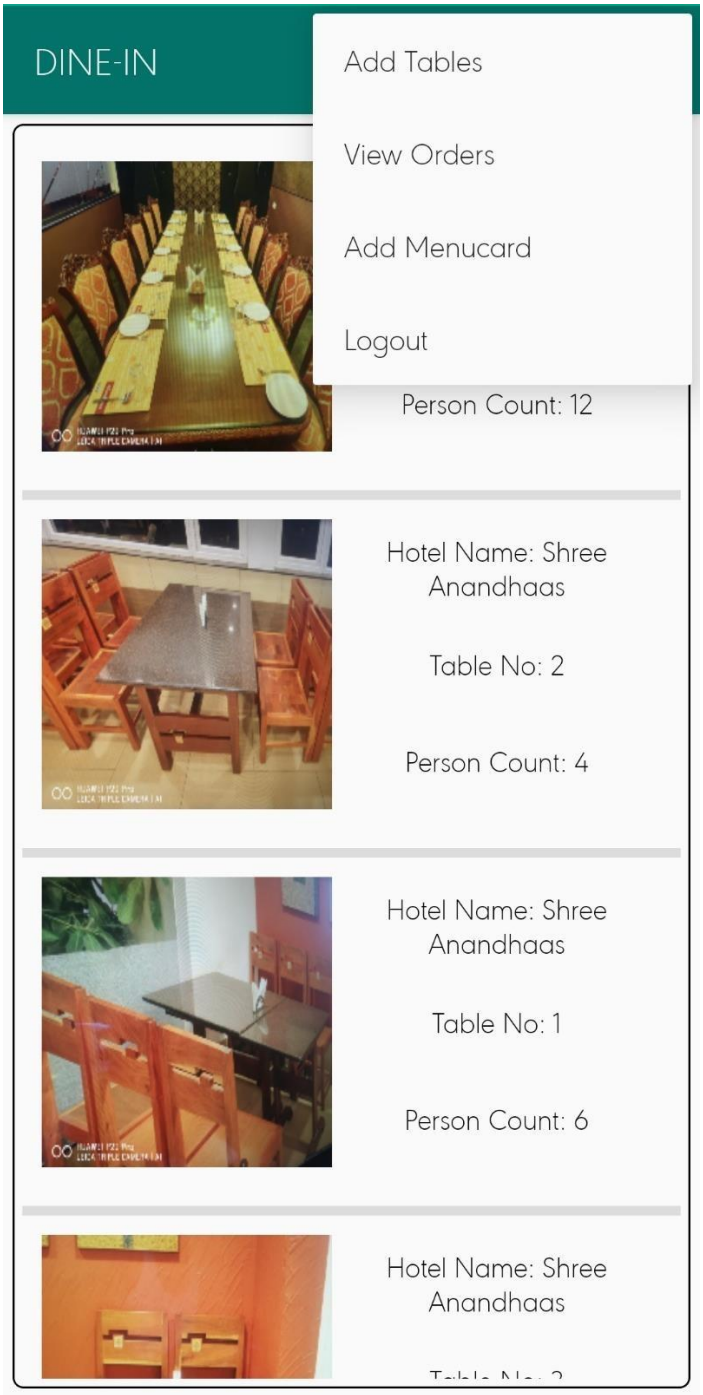

Fig.5.17**:** Main page UI

The Fig.5.17 shows, the main page of the Admin side, the main purpose of this page is to show the added pictures of tables of the restaurant and on the top right corner the Menu bar is placed, which consists of add tables, add food menu and to view the orders received from the customers.

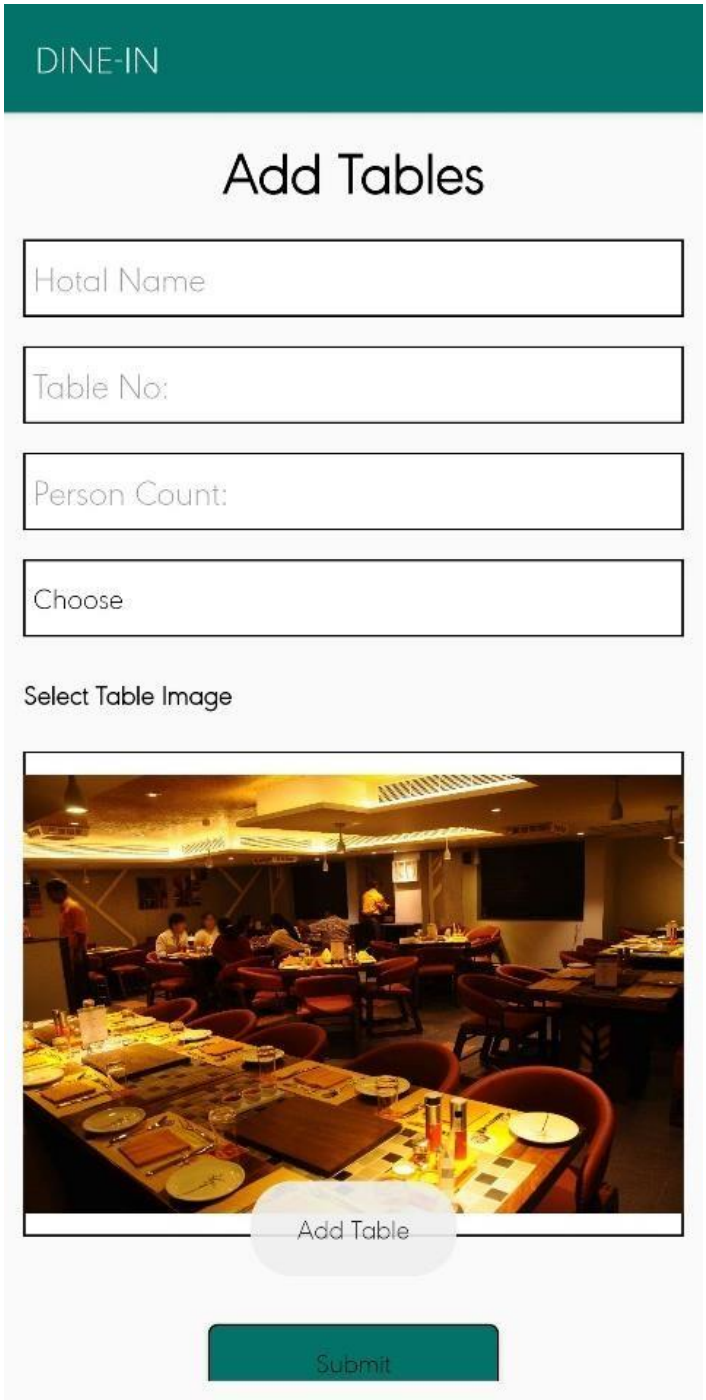

Fig.5.18: Add Table UI

The Fig.5.18 shows, the data to add the table with camera access to add picture of the tables.

- The data required to add a table are: -
  - Hotel Name.
  - Table Number for the restaurant convenient.
  - Number of occupancies Per/Table.
  - Type of tables for Filters.

After filling all these details, the Admin can finally Click on the submit button.

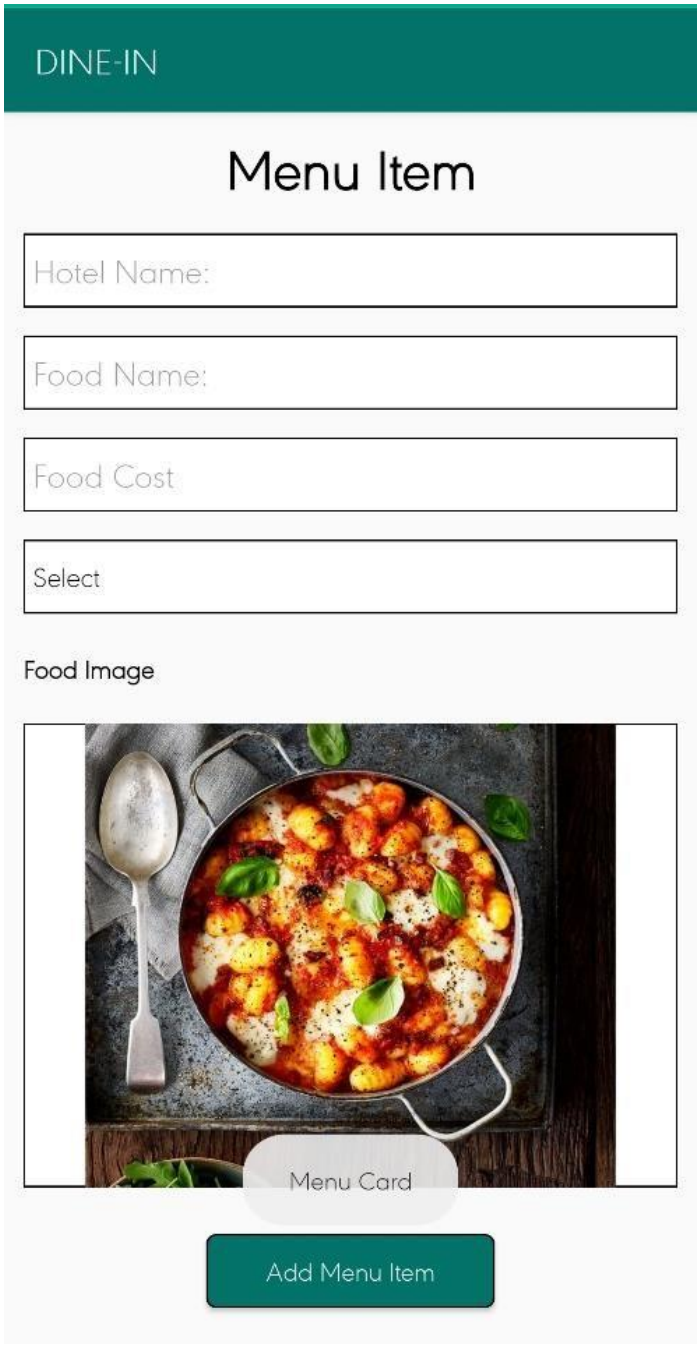

Fig.5.19: Add Menu UI

The Fig.5.19 shows the data to add the food menu with camera access to add picture of the food.

- The data required to add a Food menu are: -
  - Hotel Name.
  - Name of the Food.
  - Price of the Food.
  - Type of the cuisine of the Food.

After filling all these details, the Admin can finally Click on the submit button.

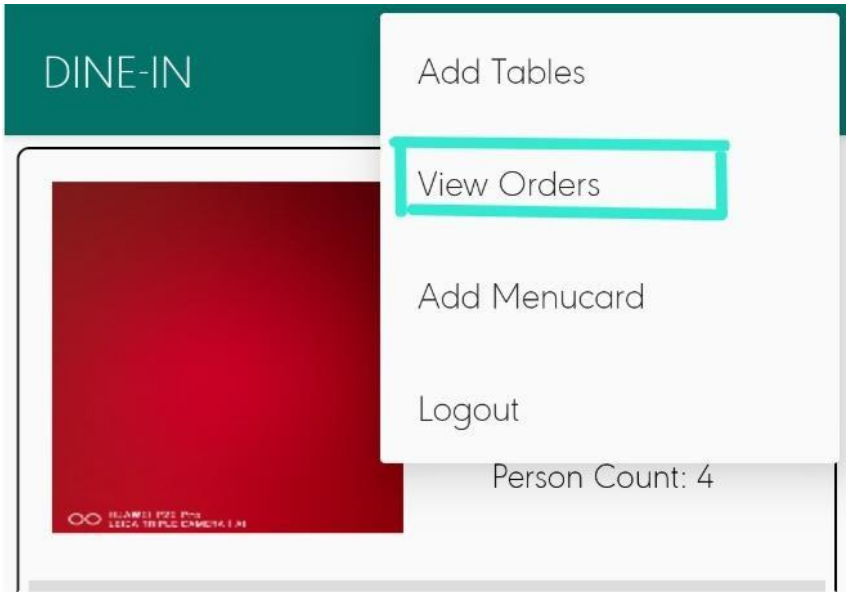

Fig.5.20**:** Menu bar UI

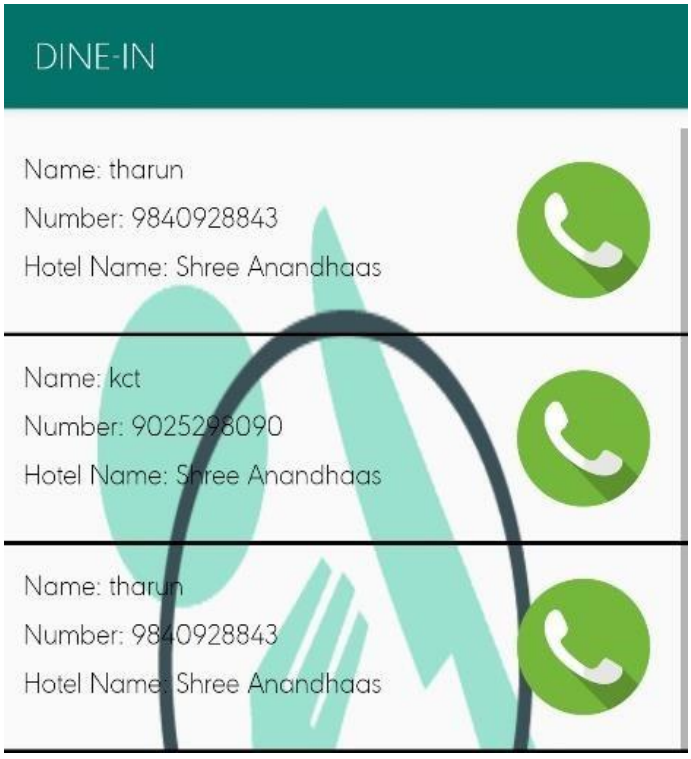

Fig.5.21: Order List UI

The Fig.5.21 shows, the bookings placed by customer and with their details, in the as shown in Fig.5.20 “View Orders” section of the Admin side.

CHAPTER 6 CONCLUSION & FUTURE WORK

6.1 INTRODUCTION

The created this application for restaurant reservation on online. In this pandemic situation it is very helpful to protect us from many ways. It contains view of table and seat. The list of restaurants and in each restaurant list of food are there then you can select the date and the time as your wish.

6.2 ADVANTAGE OF THIS SYSTEM:

- This system support Android operating system.
- You can see the view of the table and seat.
- As your wish you can select date and time.
- Payment in both online and cash on restaurant.
- You can book your table at any place.
- Waiting time and paper is reduced.

6.3 FUTURE SCOPE

In future we hope to develop more into this reservation system. This is because that we aspect that my system is not future promising to the user. We would like to develop a 360 Degree view of the table and an AR models of the Food items and also adding a reminder feature which reminds you through all your devices including Smart watches, Smart speakers like “Alexa”. In future we will develop a software for windows and IOS.

6.4 CONCLUSION

Thus, we present an android application for food ordering and table reservation system with features of online, mobile based. This project will be benefit by both the customer and owner since it can be access by everyone through the android application which will save time for the customer. The owner can deal with a greater number of customer as it takes no longer time since the food will be served as soon as the customer arrives. This proposed system has the potential to attract customer, effective and easy thereby improving the performance of restaurant’s ordering and billing. I also talked about changes I will like to make to the system in the future.

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