

Food ordering app in android development

Project report submitted in partial fulfillment of the degree of

Bachelor Of Technology

In

Computer Science & Engineering

By

171274 Sonali Gupta

171285 Yukti Katiyar

Under the supervision of

Mr. Arvind Kumar

To



Department of Computer Science & Engineering

Jaypee University of Information Technology

Waknaghat, Solan

Himachal Pradesh

Acknowledgement

We would like to extend our special thanks to our Project Manager Mr. Arvind Kumar has given us a great opportunity to do this great work on the topic Android Development Order Food Program, which also helped us do a lot of research and we know of many new things we are very grateful to them. Second, we would also like to thank our parents and friends who have helped us so much in completing this project within the allotted time.

171274 Sonali Gupta

171285 Yukti Katiyar

Mr. Arvind Kumar

Certificate

This is to certify that this project report entitled Food App in Android App Development submitted to Jaypee University of Information Technology, is a bonafide record of work done by

171274 Sonali Gupta 

171285 Yukti Katiyar 

under my supervision from January, 2021 to May, 2021 in partial fulfillment of the requirements for the award of the degree of Bachelor of Technology in Computer Science & Engineering.

The matter embodied in the report has not been submitted for the award of any other degree or diploma.



Mr. Arvind Kumar

Assistant Professor

Department of Computer Science & Engineering and IT

Dated

Table of content

Contents	Page No.
List of Graphs.....	(5)
List of Figures.....	(6)
Abstract.....	(7)
Chapter 1: Introduction.....	(8-13)
Chapter 2:Literature Survey.....	(14-18)
Chapter 3: System design.....	(19-21)
Chapter 4: Implementation.....	(22-25)
Chapter 5: Performance Analysis.....	(26-42)
Chapter 6: Conclusions.....	43
References.....	45

List of graphs

Residential and cellular phone expenditure

Statists form December 2019

Downloads made till 2018

Gantt chart

Download Food Time

List of figures

Code screenshot1

Code screenshot1

Code screenshot1

Code screenshot1

Register page

Login page

My profile page

My chart page

Order placed page

History page

Favourite restaurants marked page

Login page with credentials

Order confirmation page

Abstract

This project is about using a user menu system to search and upload food information via mobile phone. People can sometimes just know what food they wish to eat instead of the name of the restaurants. In addition to knowing food names, our food search only needs a container name (e.g. hamburger, spaghetti, etc.) to find a list of restaurants that serve these items and their associated details (e.g. location, hours, phone number, item price, etc.). The benefits of using my eating plan include not only Google Map, but any information that other users have included. When a user wants to add a food item, a person can upload an image or object template to the server and add a comment and comment on a food item. With the rating option, my project calculates measurement results based on original inputs and other user. There is also the option for users to enter a zip code to better identify where they are getting food. Depending on the power of the phone, the system also needs to find the physical location of the phone. This requires the phone to receive a GPS signal. As a result, users can search / download local restaurants without entering the current location.

Chapter:1

Introduction

In this chapter we should design and apply the structure with the help of the XML programming language and the Eclipse (editor) editing environment. We decided to re-install some Java components and how to customize the game's game requirements.

Needs review

There are sometimes several requirements for this type of application. During this thesis process we will develop a specific model that will handle only part of the specified requirements. Prototype functionality is critical to installing, uninstalling and connecting to a web service.

Android project design

The design of the Android project is very similar, but it can also vary depending on the project we needed and the IDE tool. We will explain a particular structure while using ADT. When the program uses ADT the project structure is automatically created. Even more so, ADT also created a customized "Hello world" program. The ADT GUI version is an easy way to create an Android project but the early developer can also use a set of tools that can be run in the final session. The last tool called "ant" can remove an error in the Android project and make a sample design even if the developer uses any other program tool than Android Studio.

Social media is now becoming more and more popular, especially on modern mobile phones. Mobile technology these days allows new programs to be used by us in many forms. The cost of accommodation is declining day by day, and the cost of mobile phone is increasing significantly with all age groups.

In order to satisfy a large number of mobile phone customers, the mobile phone industry should have become increasingly important in the development of mobile hardware and software. That is why the machines of earlier science fiction had become a reality. Mobile phones today have been prominent in their development. Just as yesterday's cell phones were just as useful as communication devices, as many people today are, cell phones are not just a communication tool for everyone else; it also works as an alarm clock, calculator, internet browser, notebook,

camera, calendar, music player, voice recorder, GPS and computer game. This has happened with the help of the development of mobile phones. Today, cell phones are more than just phones; they are small computers with the ability to work hard. One of the latest advances in mobile phone use is online restaurant reviews. Before deciding what to eat for dinner or entering a restaurant, people often look for restaurant reviews with their smart phone. To help people search and order food with their smart phones, my graduation project is to create and use a mobile phone search menu app.

In the past, one had to rely on one's own experience or recommendation from a friend to find a good restaurant. However, with the latest technological advances, new ways of finding a good restaurant have been developed. Today we would like to say that one can simply pull out his GPS and enter instead of looking at the Point of Interest (POI). Alternatively, we have a selection of someone who can plan ahead and use his or her home computer to browse restaurants with their favorite search engine. Finally, a person can pull out his cell phone and look for the right place using special phone features.

Related work

The Global Positioning System (GPS), which we have officially named NAVSTAR-GPS, has 27 satellites orbiting the earth. Each of these is a satellite that emits a signal. The basic design of this GPS is similar to standard ground-based radio navigation systems. By receiving microscopic signals from a variety of satellites, GPS has the ability to determine your location, speed, time, and precise directions. In this section, we will discuss how GPS is used in everyday life, Point Of Interest (GPS feature), and the pros and cons of standard GPS devices. Many GPS models include the POI (Point of Interest) feature, which can be very useful for the user to get a little bit of information about various businesses in a given range of current location. Of particular interest to us is the GPS ability to detect food-related POI; in a very related topic of finding nearby restaurants from a GPS device. Most likely, the search result will be a list of restaurants and if the user chooses one of the restaurants, GPS will provide you with brief information (address of this restaurant, phone number, and distance between your current location in this restaurant). When a user decides to enter this restaurant, the GPS device will immediately calculate the correct route and estimated arrival time.

Benefits

One of the reasons why GPS is so popular is that GPS signals are open and publicly available for free. GPS producers do not have to pay for or maintain a satellite system used for land acquisition. Many GPS manufacturers have used this by creating devices that simply "capture" GPS signals and calculate a given location. For this reason, GPS is the most affordable of all. Most GPS devices have large screens. With oral commands and a large screen to display map content, it is very helpful to use when the user is driving and getting directions quickly. Once a user has purchased a GPS or a car with a GPS feature, the device itself comes with a current map and POI. Everything is already well set and POI is easy to use and can serve users for a general purpose.

Project Objective

“To develop a fully functional online Food Ordering app In Android App Development with the help of JAVA ”

Chapter:2

Literature Survey

In previous research there was a lot of app available like swiggy Zomato associated with services located in the NCR area of our country where the services of the swiggy and Zomato online application are similar to human bidding. The food ordering app also searches for restaurants and a discovery service founded in 2008 by many scientists. It currently operates in almost every country in the world.

It provides very useful information and reviews of many restaurants, including photo menus where the restaurant does not have its own websites and online food delivery services across the country. Items such as books, newspapers, thesis and other web resources are needed to develop an information guide.

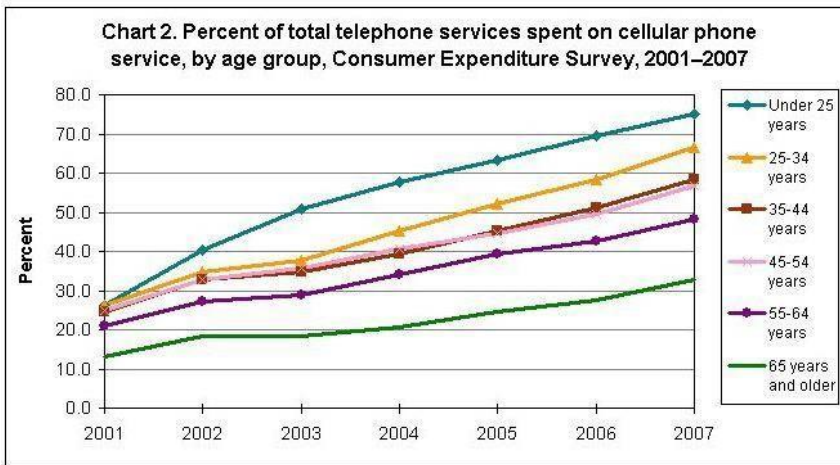
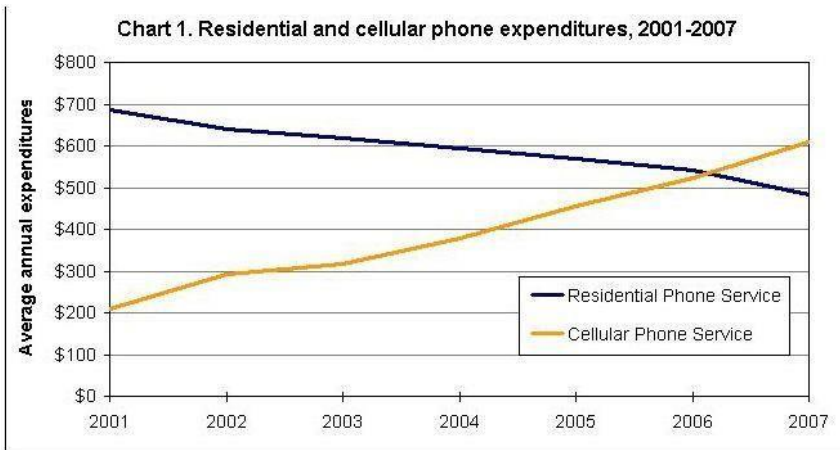
Social media has taken over all cell phones these days. Mobile technology helps us with new applications that need to be used in a variety of ways.

The Global Positioning System (GPS), officially named NAVSTAR-GPS, has 27 satellites orbiting the earth. Each of these satellites emits a signal. The basic design of GPS is similar to standard ground-based radio navigation systems. By locating microwave signals accurately from a satellite orbit, GPS is able to determine the location, speed, time and calculated direction of destination.

GPS is embedded in the car, the user can use this device while in the car. There is a time when users can retrieve information from their device known as GPS. Therefore, it is easy to use each GPS.

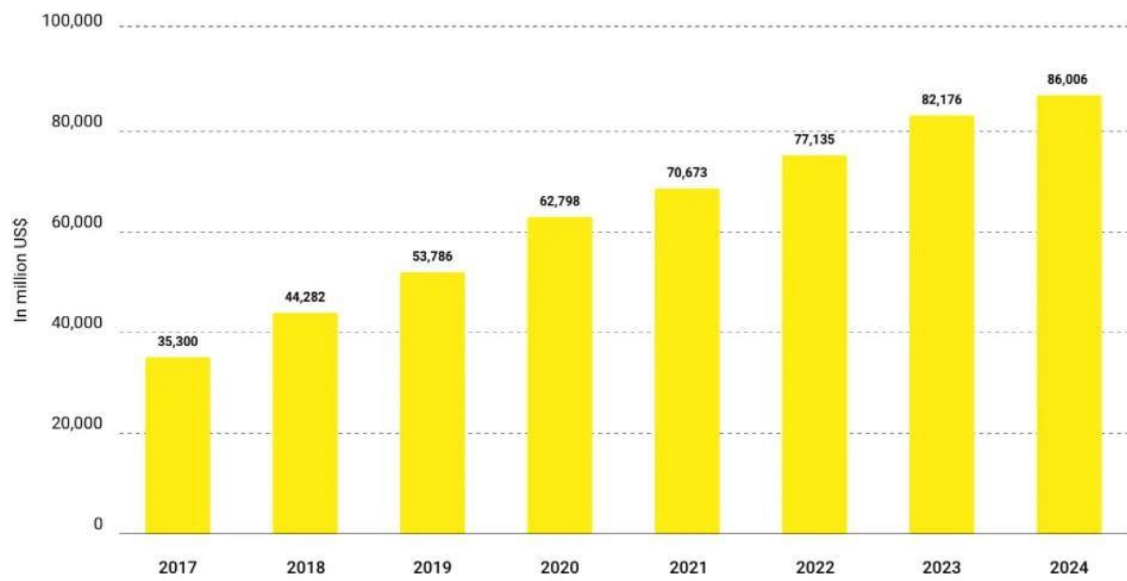
The development of e-commerce and online shopping expands the economic bridge. Researchers have come to the conclusion that various technologies benefit visitors and promote prosperity in these fields.

In a few years, we would be able to decide what to eat in more than 10,000 cities around the world.



Survey till 2007 chart

Graph1: residential and cellular phone expenditure

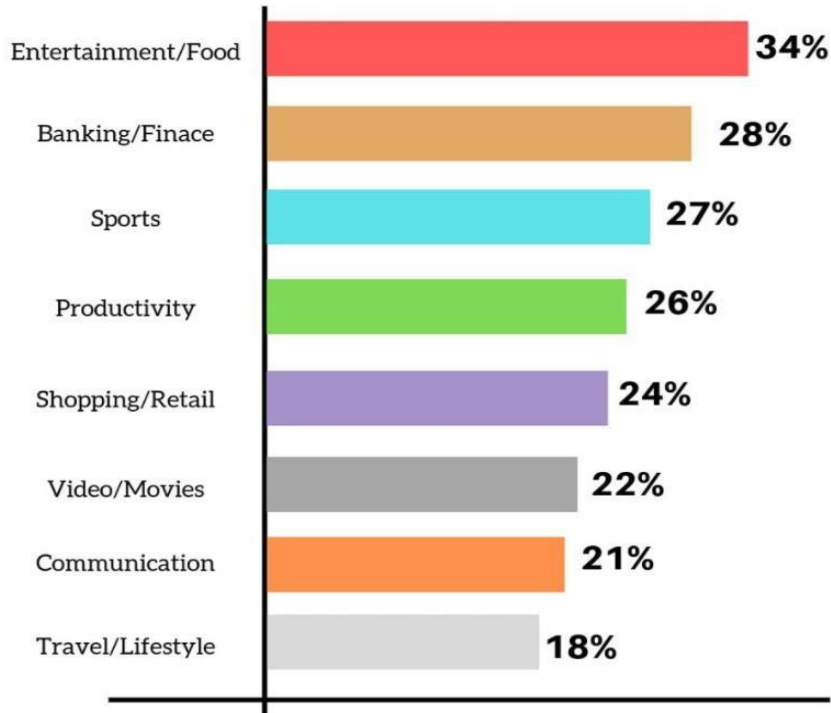


Source: Statista, December 2019. Selected region only includes countries listed in the Digital Market Outlook

Graph 2: statistics from December 2019

Future usage of apps

The Mobile apps is a huge and aggressive market with 105.3 billion mobile apps downloaded in 2018 alone.



Graph 3: Downloads made till 2018

Chapter:3

System Design

Modular Design

We divided our project into four sections: part of the database, part of the PHP code (server), part of the Java code (client) and part of the code of Java Java (client). In PHP code it helps the server to connect, manage, and query MySQL database with the corresponding URL. In Java Java code connects to the server using the correct URL, does it define and translate the value is an ambiguous level to make the data ready for the next level (Android Java code) to use. In this PHP code and Java core, both contain the execution of all the major defined APIs. In this way we can say that, the server and the client can easily communicate easily.

Separating this code at a different level simplified the debugging process. For example, when we have to work in the PHP server section, we have to take care of what we need to do to use the browser to access the server with the corresponding URL. If the output is not required as expected, the error will remain in PHP code only.

After that we have completed the major tasks, working on the next model, called the Java code startup section. This is in the middle module; The main purpose of this module is to generate a valid valid URL and send the request to a PHP server. As we said before, with the same name as the PHP function, if the return results are the same as calling the result from a URL, we know that the URL is correct. So we're going to have to get the result as a String value. In addition, the Java startup module transmits the effect to Java corresponding to the type of Android UI module data to be used later.

The following module is the backbone of Android Java; it is a key part of the project. Manages all user input and output. In addition, the module also handles phone features, such as location, camera, upload and download photos on a server and so on.

Application design

First, we need to design a protocol between the client and the server. It will take two basic steps to do so, the first step, called Application Design, is a very high level of defining what kind of tasks a server and client can handle.

The design of the app is also a basic step because all the great features are based on this step. It will specify a high level of compliance between customers (mobile) and server. Now that this has been done, we should move on to the design phase of the launch section, which will be discussed in the next chapter.

Gantt chart



Graph 4: Gantt chart

Chapter :4

Implementation

Most web applications that use Linux such as operating system, Apache HTTP Server, MySQL and PHP software stack due to open source. Liberal use and logical operation, we use PHP to set up our server side.

Website

As with other web applications, restaurants, menu storage and user login information, it is necessary for the database to be configured for the system.

As the database for this program is simple, the MySQL database is used for this mobile application.

PHP

PHP, replaced by Perl or Python, works on our server side. Like any other web application, one can use a browser to retrieve data from a database via a PHP server.

Database Availability

Valuable roles for users of the PHP module directory which they should pass on through our database indirectly. We have used all PHP file function names, that is, the server returns the correct result only in case users use the correct URL with the correct username and parameter names with the correct values. Alternatively, the user will be given the error message “this is not a valid job calling”. Therefore, there is no direct access to the database.

Upload File

Receipt of files (image files) from customers. The default setting provided for the upload guide is unknown, within the PHP file, it is necessary to change the authorization code of the write permission.

Second, uploaded images will only be displayed on the mobile screen, for better performance, the image resolution does not need to be high. Therefore, save server space, download and upload time from server to create files.

Java Core

PHP Server Verification works correctly for all valid URLs, running in the basic Java module. The main function of the main Java module is to integrate the entire URL into all the functionality with the appropriate parameters and the correct value, making sure they can get the output directly as we use the browser and send the request to the PHP server. Theoretically, this module can be written in another language and can generate a URL and scan the results into the appropriate form in the next section (Android UI module). Java is undoubtedly the best solution because using Java to create URLs and analyze results is a delicious and very important measure, Android is already installed in the JDK library.

Similar to creating a basic java network code, we need to set the URL item with the correct URL, and then use HttpURLConnection to open new connections and learn data through InputStream.

When we receive a http response from our PHP server, as it is not a result from web services, the main Java module needs to manage the partition so that the next module can easily get this result.

Java Android

In the mobile app, Java Android is the hardest part of the project. It comes in direct contact with users, takes care of all user input events to start the phone's internal functionality and displays intuitive user output on the screen. Besides, this particular module has the right to handle advanced features of the Android phone.

GPS location

Taking advantage of the GPS receiver embedded in the Android phone, our system uses LocationManager to retrieve current location information from the satellite GPS signal. With these GPS features, the user can easily find the current location to search for something to eat at a nearby restaurant.

Viewing Fancy List

By default, we can only create a simple list view on the phone. The list is only a text message stored with a variety of similar members. When we need to create a fun list view, it is necessary to expand ArrayAdapter to add a customized list view style. In this way, we can add a variety of items to the list and display them on the phone during operation.

Photos

Uploading and downloading photos to the server are important features of this phone application. To ensure that the system can refer to the appropriate image of its corresponding food or restaurant in a proper manner, we have provided the image of the restaurant as the name of the restaurant and location (longitude and latitude). This is because if you are given a place, there should be only one restaurant at a time; and we have one photo of this restaurant. As a result, there should be no duplicate image name for this. The food, being inside the same restaurant, consider that there are no duplicate items. We use the name of the food and the name of the restaurant name with the number of pictures so that when a person clicks "next" or "previous" it shows the correct picture of the food on the screen. After the client has downloaded photos to the phone's SD card, when the correct name is made for all food photos, the user can click the next button to display the next image.

Chapter :5

Performance Analysis

Java Core

We tested our Java core by calling the experimental activities the main way. These test functions offer a great deal of text transfer features. We can hardly write the current location to find a list of restaurants within range. To simplify the testing process, we can test this module in a separate Java project and use the program print method to print error correction messages on the screen.

Android Java Code

After passing all the PHP and Java module test cases, we moved to the Android Java code. Tranship testing features, such as GPS receiver, camera, and image file transfer, could not perform well in the Android emulator. The actual phone was used to check those features.

Network Performance

We rated the performance of the network by measuring the time it took for the client to complete downloading the restaurant information and food information according to the various number of results returned by the server. To calculate the past tense, we have connected the phone to our development computer to read the login message from the mobile app. We calculated time stamps before and after the download. A little time consuming for high performance of this application. It took 98 ms and 116 ms to download the details of one restaurant and download the details of the average food, respectively. The result shows that the average time to collect food information is slightly higher than that of restaurant food information. This is because in order to get food, we still need to find a compatible restaurant from our database first. Overall, the performance of our system is widely accepted in terms of usage.

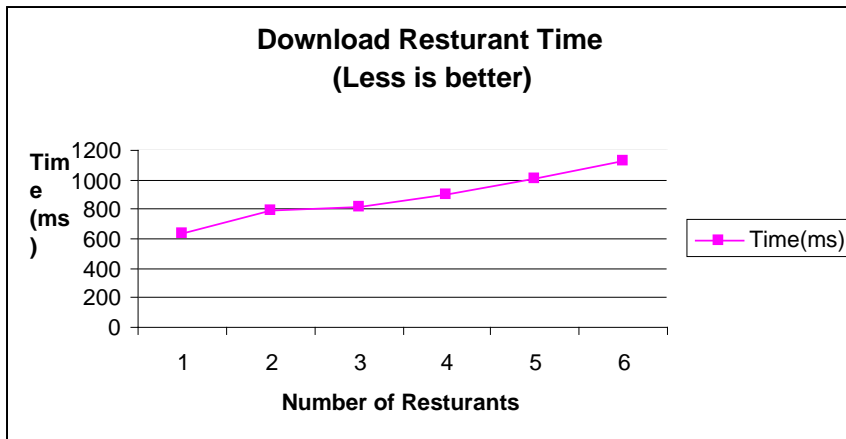
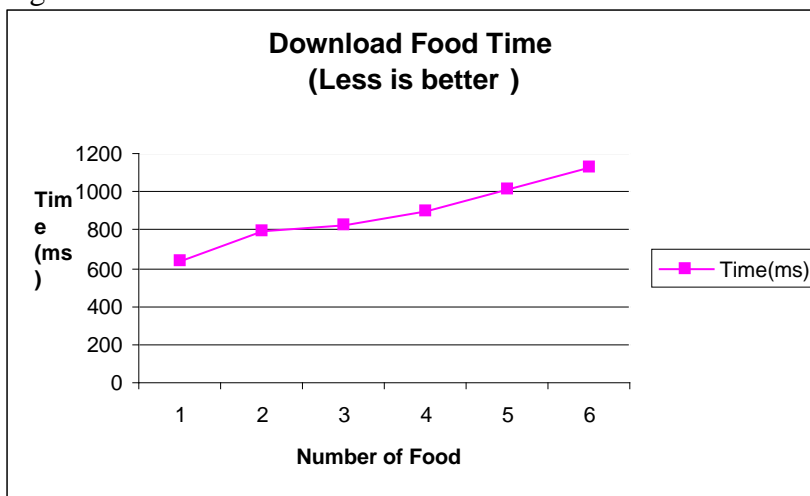


Figure 5.2 Download Restaurant Time



Graph 5 : Download Food Time

UI

We looked at the UI by comparing the number of steps. The steps taken would not improve the structure of the UI method. Finally, the search bar involved in a food item is even more important when scrolling through food items.

Problems and Solutions

In the process of implementing this program, we have encountered many problems due to the complexity of the entire system and the limited budget available for this project.

Set up Server

When performing server setup, there were some communication problems with both the emulator and the real cell phone. Additionally, we had problems requesting a store process from a PHP server. We will also discuss the differences between pure Java code and Android Java code, the problems of resolving the list view icon and how you can solve multiple user problems accessing server issues.

Emulator

If we are hosting a server on a different machine than the one using the emulator, we must use a clear IP address for the client to access the server. When we use our machine to run client and server hosting, we can use "localhost" as IP on the client machine to talk to the server. However, our client is a mobile phone translator. Although we were using an Android emulator to access a server hosted on the same machine, we were unable to use "localhost" to identify our server. Instead, we must clearly state the server's IP address.

A real Android phone

If we are using a real phone to make our application, within the same subnet, we need to use a static IP or domain name to access the server. This is because the router is not smart enough to know how to transfer the hole properly when the server is assigned a strong IP address. However, using static IP setting to make port transfers to our test site is not possible because we do not have access to change such settings. To solve this problem, we use a public server with a static name to host our server so that the phone (both real phone and simulator) can access the server at any time, anywhere.

Saved Process

Our original design uses stored processes, with the same API for all key functions, to access the database. PHP code reserves the right to call the corresponding database after receiving user input. However, after using the saved processes, they only work well when we ask them within MySQL directly; Downloading from our PHP code does not work as expected because PHP did not work well with MySQL due to translation problems. So, finally, we moved to embedding SQL statements in the PHP code directly.

Pure Java code and Android code

Although Android apps are based on Java, we still need to pay attention to the difference between pure Java code and Android Java code. When we tried to test our Java Core module, we tested it as a pure Java project. But when we switch it back to the Android Java code. All print screen message statements need to be deleted.

Photo Editing

In terms of the favorites list view, there is a need to convert the image into a thumbnail. If the image size is too large (large image size 2592x1944), we will receive a runtime error message.

We used low resolution images to solve this problem. In practice, we have selected 340X240 as the standard resolution for food image upload files.

Multiple users

We only have some calls that can be used in our project, we didn't get a chance to test the server's ability to manage multiple clients. Theoretically, our system should be able to manage more clients better. We do not need to maintain status between server and client. Naming a schema requires special attention. With this, the server reserves the right to create permanent file names for each image.

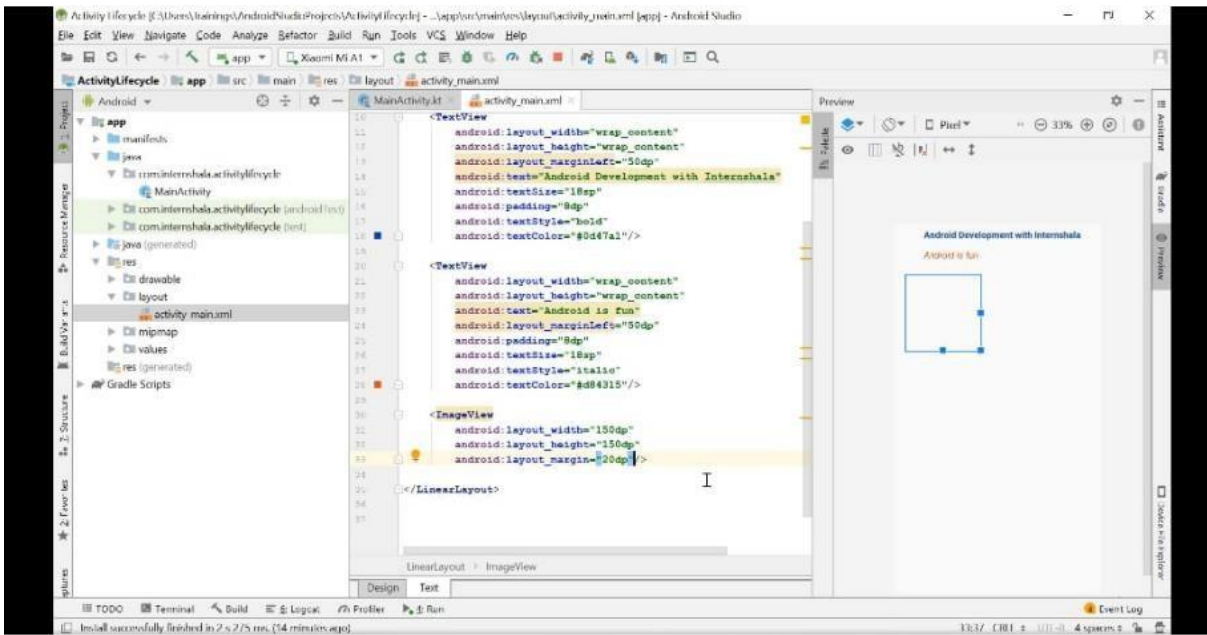


Figure 1: Code screenshot1

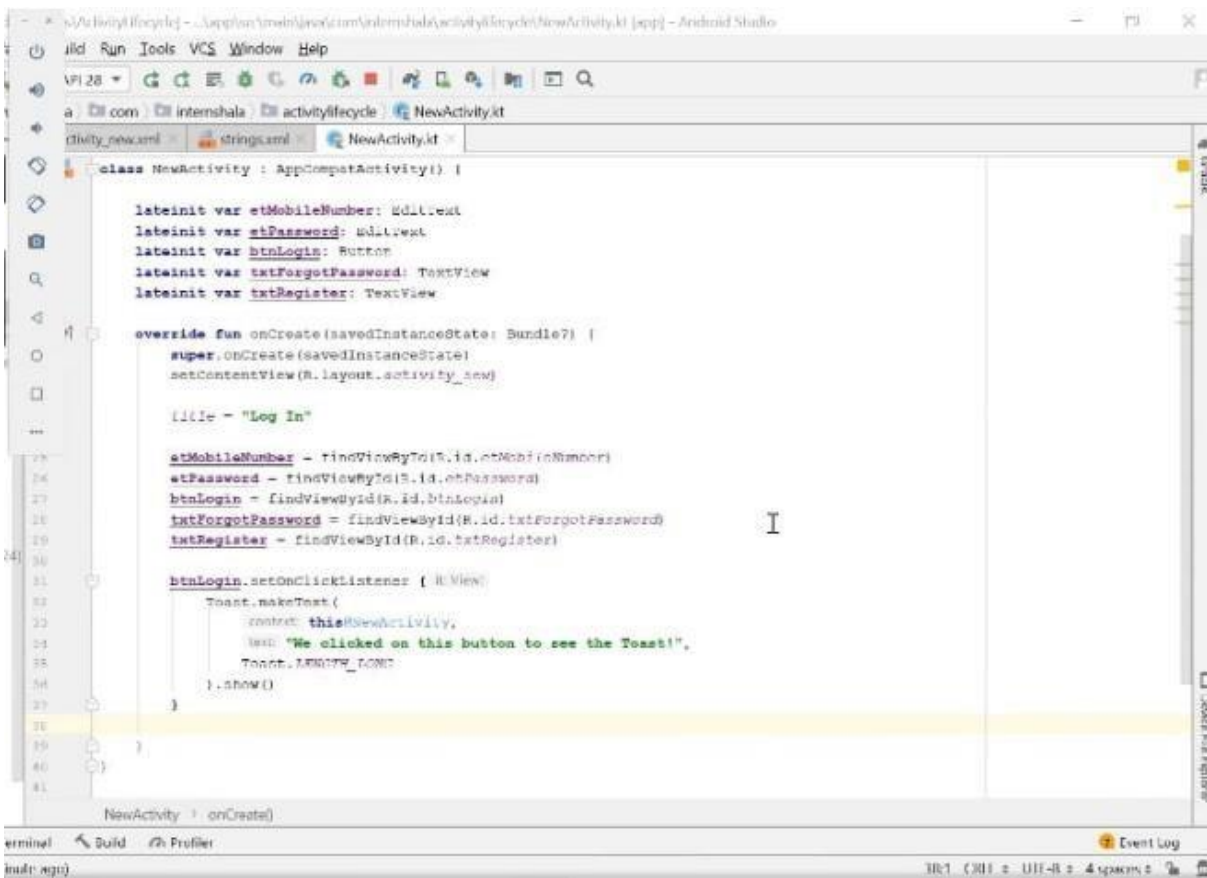


Figure 2: Code screenshot2

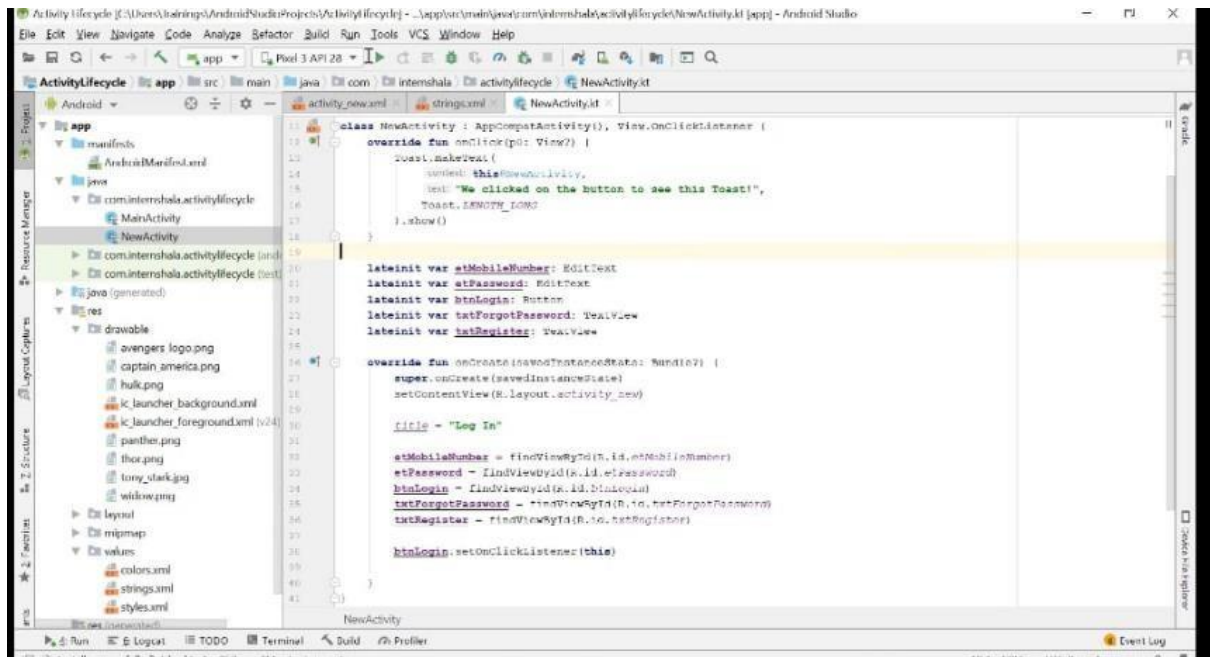


Figure 3: Code screenshot3

```
lateinit var txtRegister: TextView

override fun onCreate(savedInstanceState: Bundle?) {
    super.onCreate(savedInstanceState)
    setContentView(R.layout.activity_new)

    title = "Log In"

    etMobileNumber = findViewById(R.id.etMobileNumber)
    etPassword = findViewById(R.id.etPassword)
    btnLogin = findViewById(R.id.btnLogin)
    txtForgotPassword = findViewById(R.id.txtForgotPassword)
    txtRegister = findViewById(R.id.txtRegister)

    btnLogin.setOnClickListener { it: View?
        Toast.makeText(
            context: this@NewActivity,
            text: "We clicked on this button to see the Toast!",
            Toast.LENGTH_LONG
        ).show()

        val intent = Intent(packageContext: this@NewActivity, MainActivity::class.java)
        startActivity(intent)
    }
}
```

Figure 4: Code screenshot4

Some screenshots of the working pages

The screenshot shows a mobile application interface for registration. The top status bar displays icons for home, mail, and navigation, along with signal strength, 100% battery, and the time 20:02. The app's header is red with a white back arrow and the text 'Register Yourself'. The main content area consists of six white input fields with red borders, each containing a label and an icon: 'Name (Min 3 characters)' with a person icon, 'Email Address' with an envelope icon, 'Mobile Number (10 digits)' with a mobile phone icon, 'Delivery Address' with a location pin icon, 'Password (Min 6)' with a lock icon, and 'Confirm Password' with a lock icon. At the bottom of the form is a red button with the text 'REGISTER' in white capital letters.

Figure 5: Register page

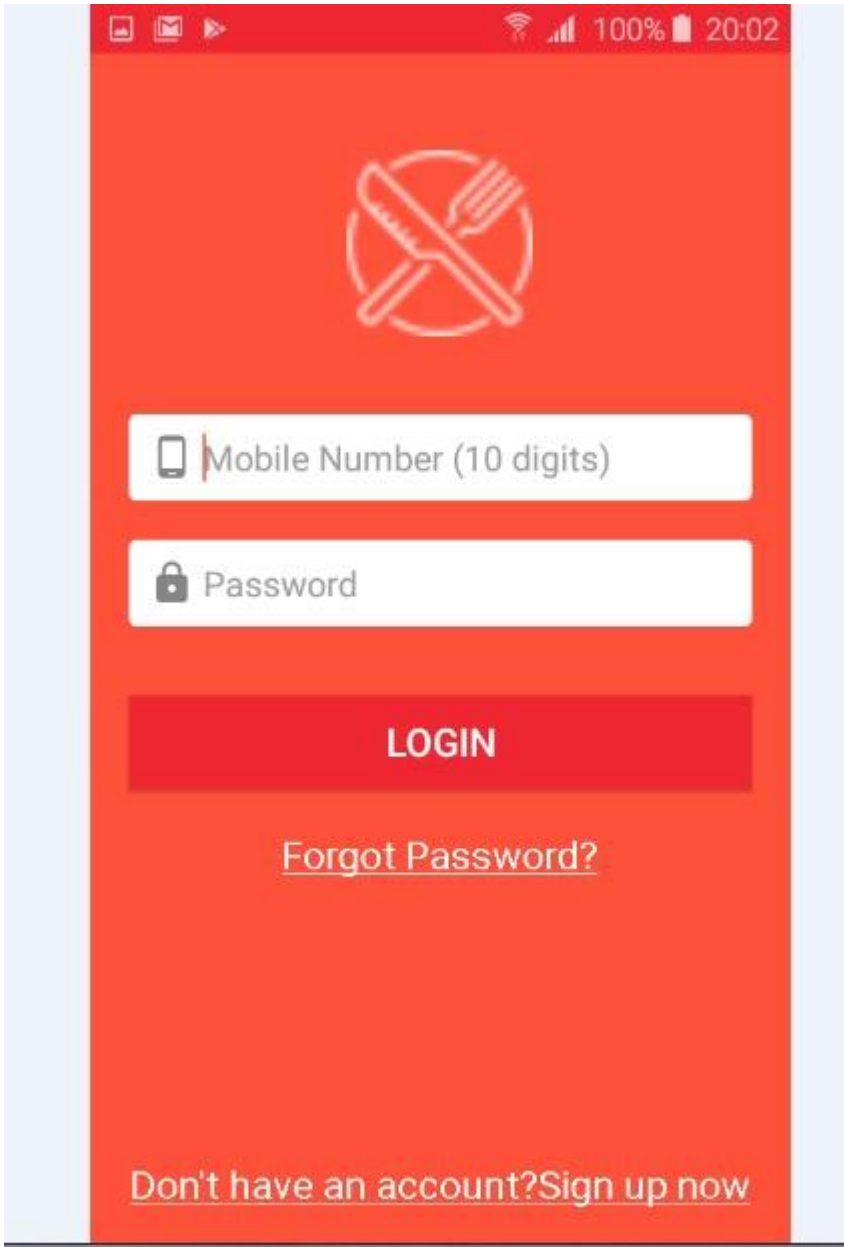


Figure 6: Login Page

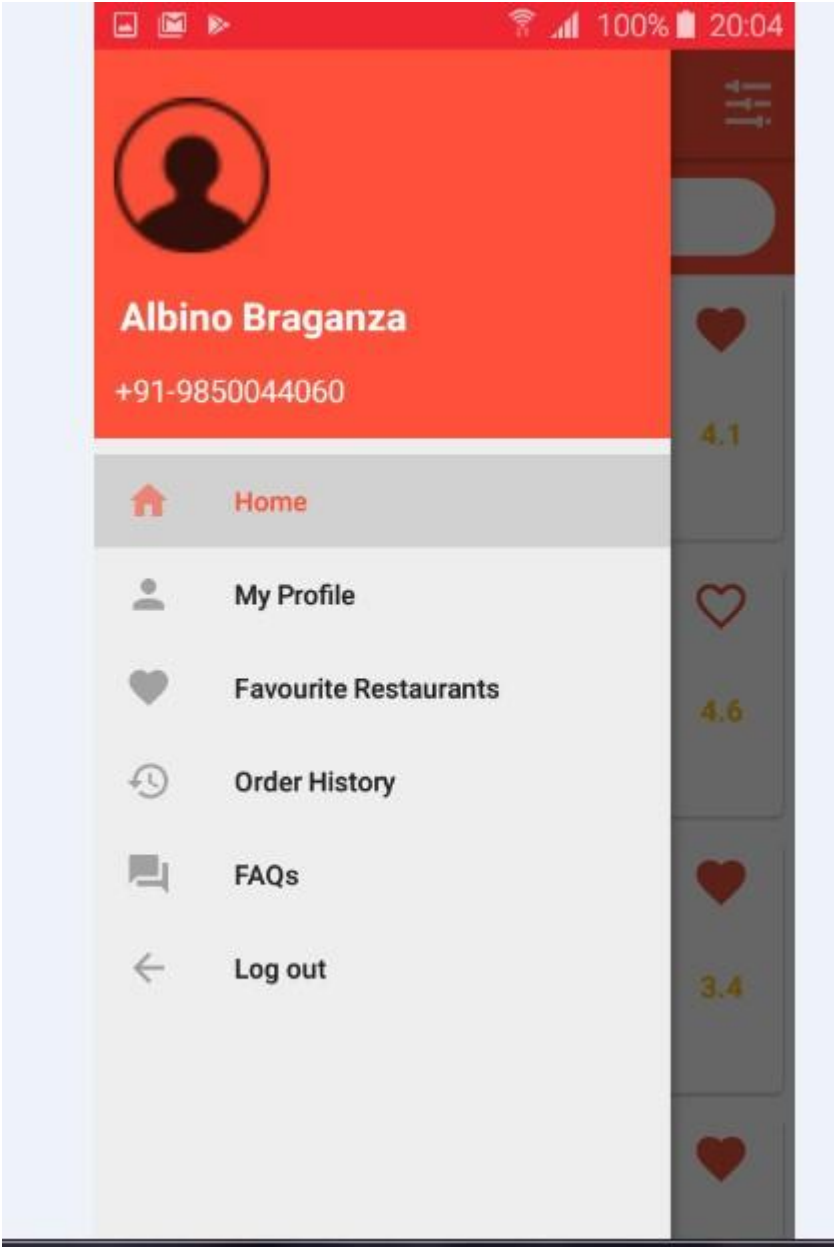


Figure 7: My profile page

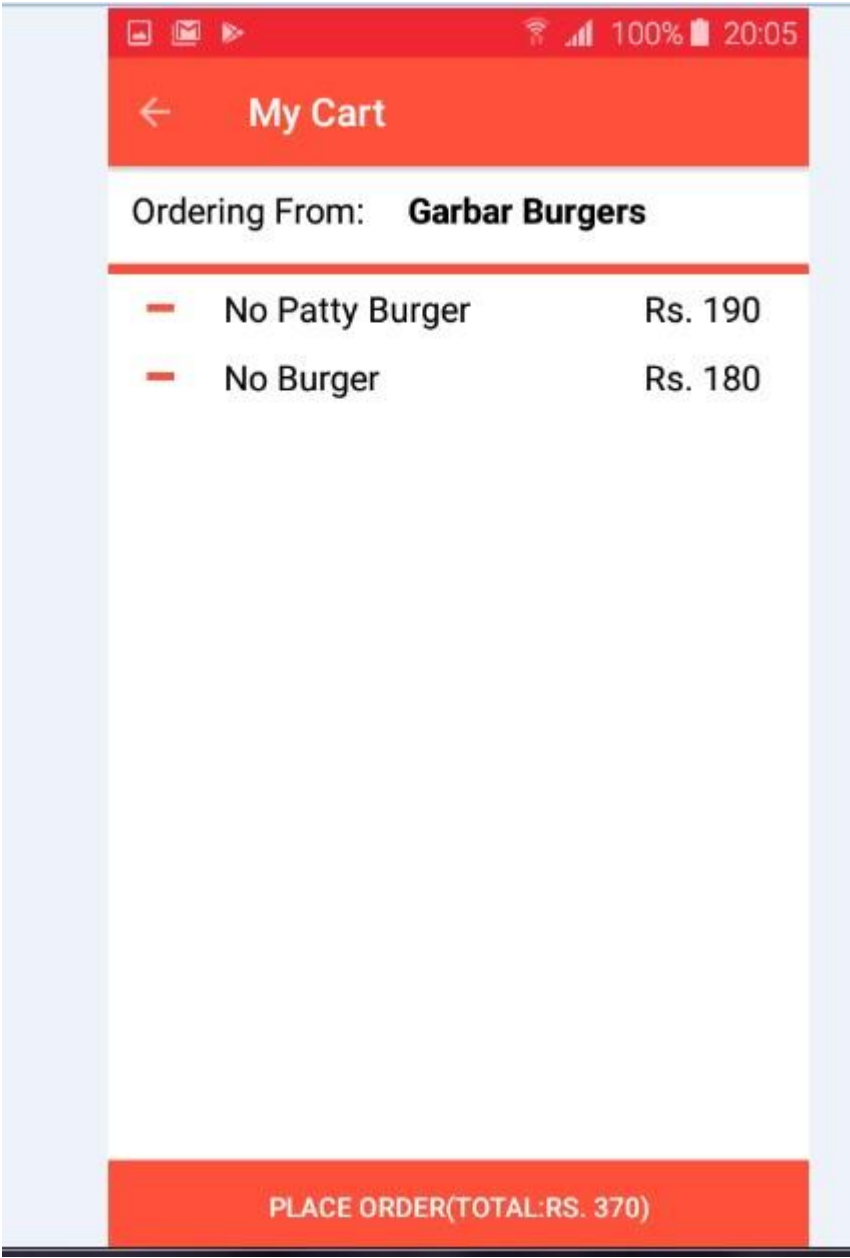


Figure 7: My Chart Page

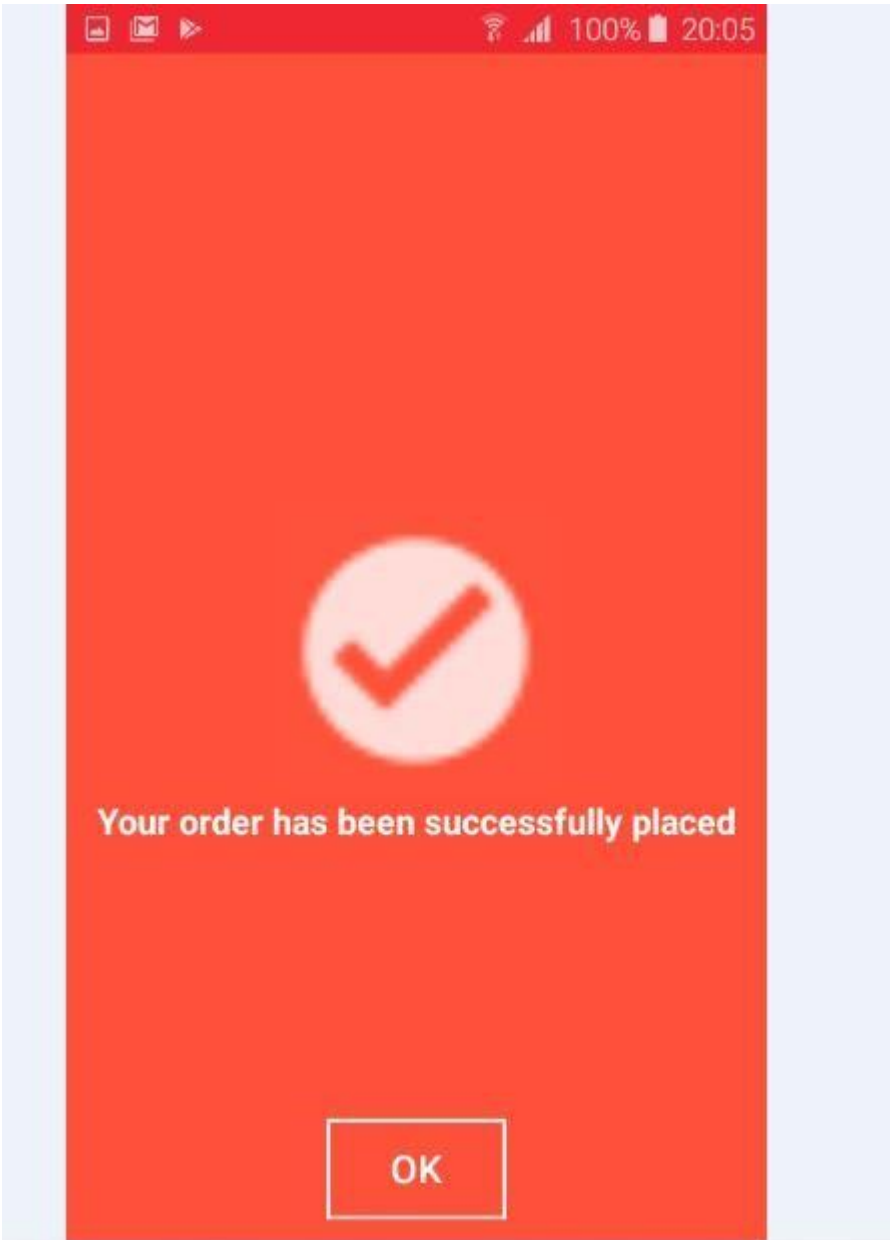


Figure 8: Order placed page

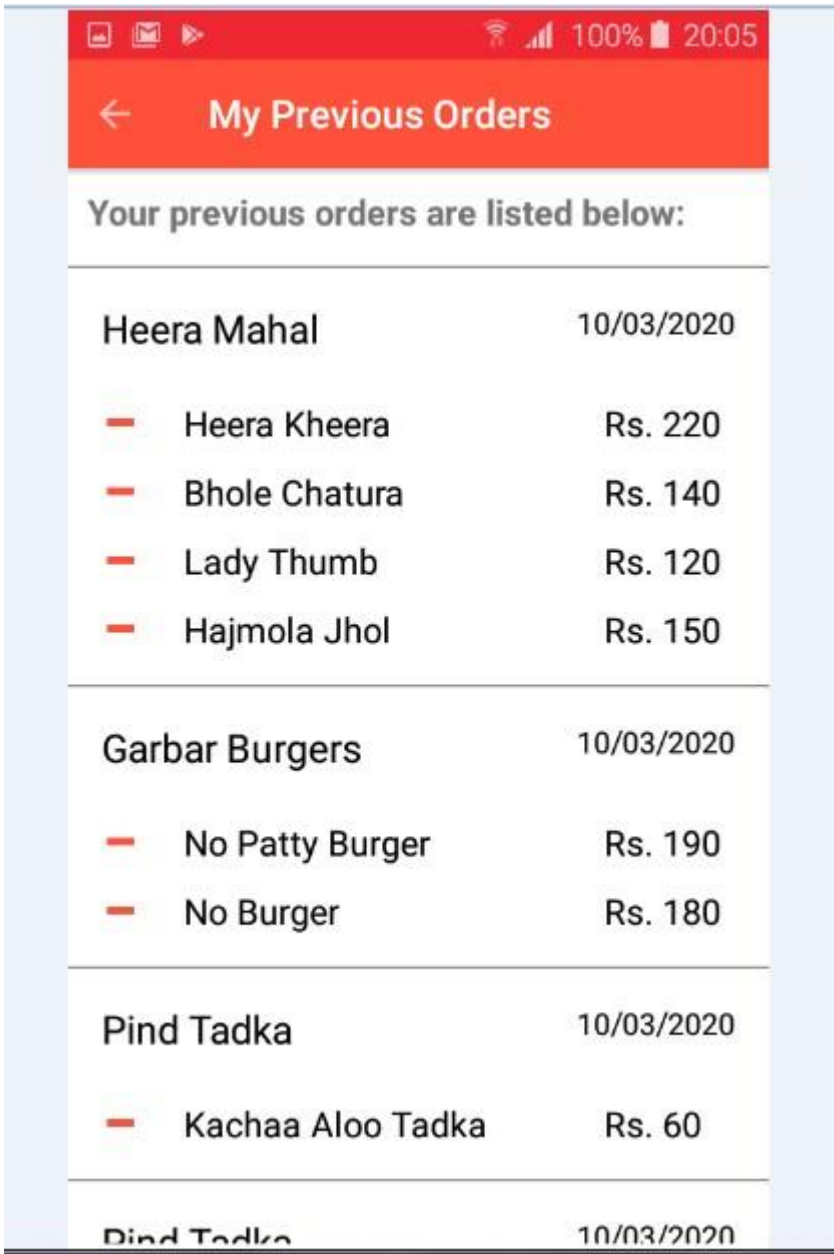


Figure 9: History page

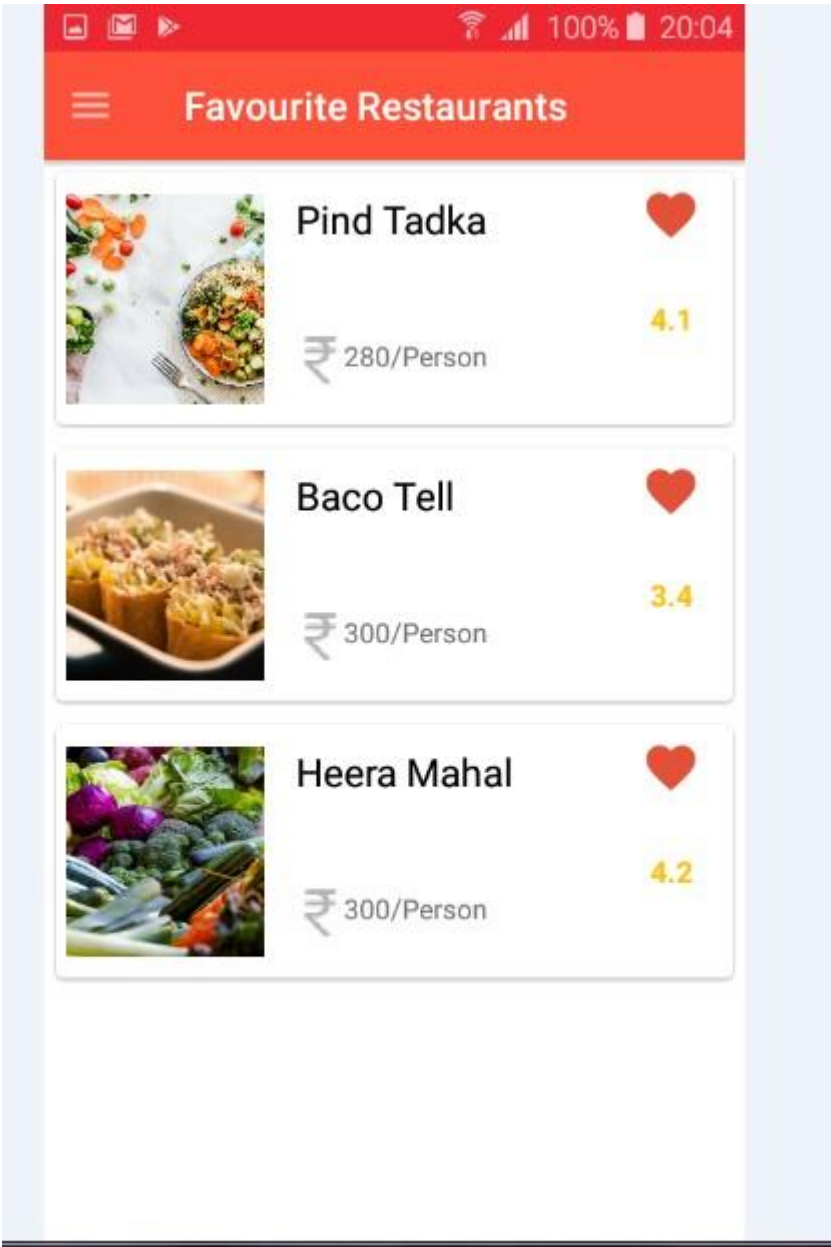


Figure 11: Favourite restaurants marked page

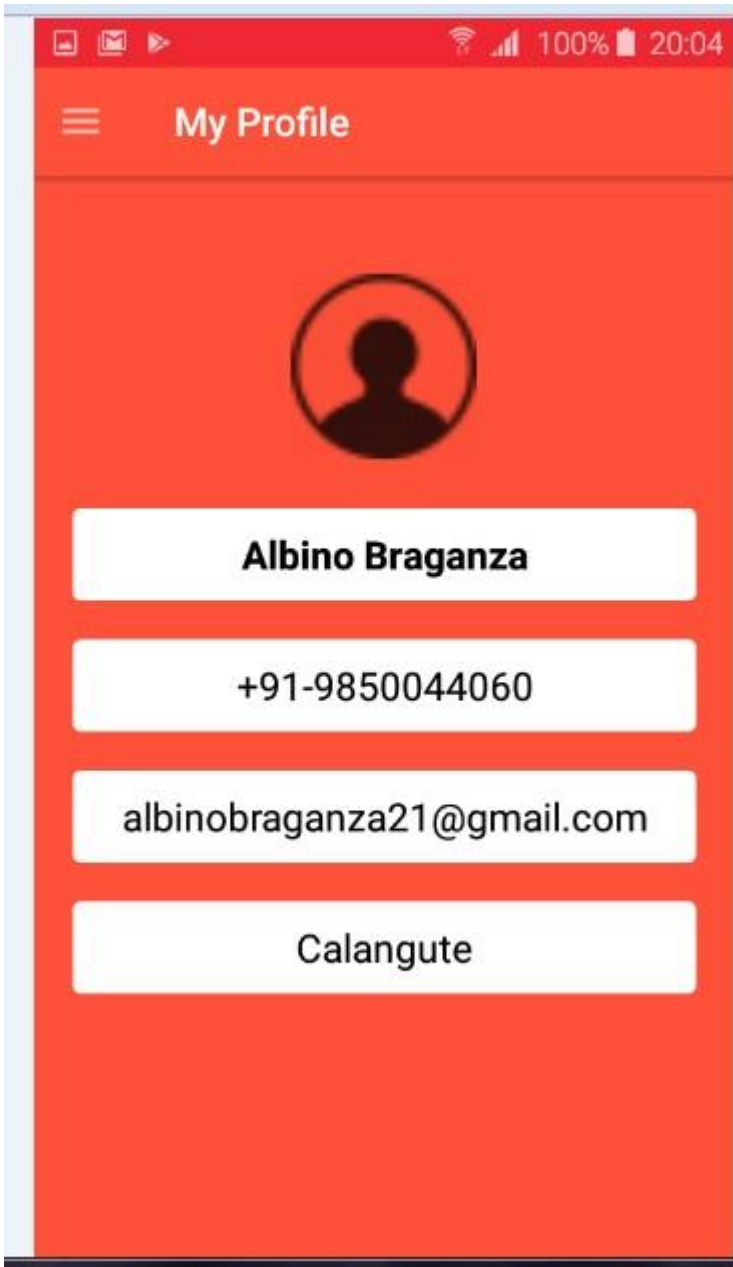


Figure12: Login page with credentials

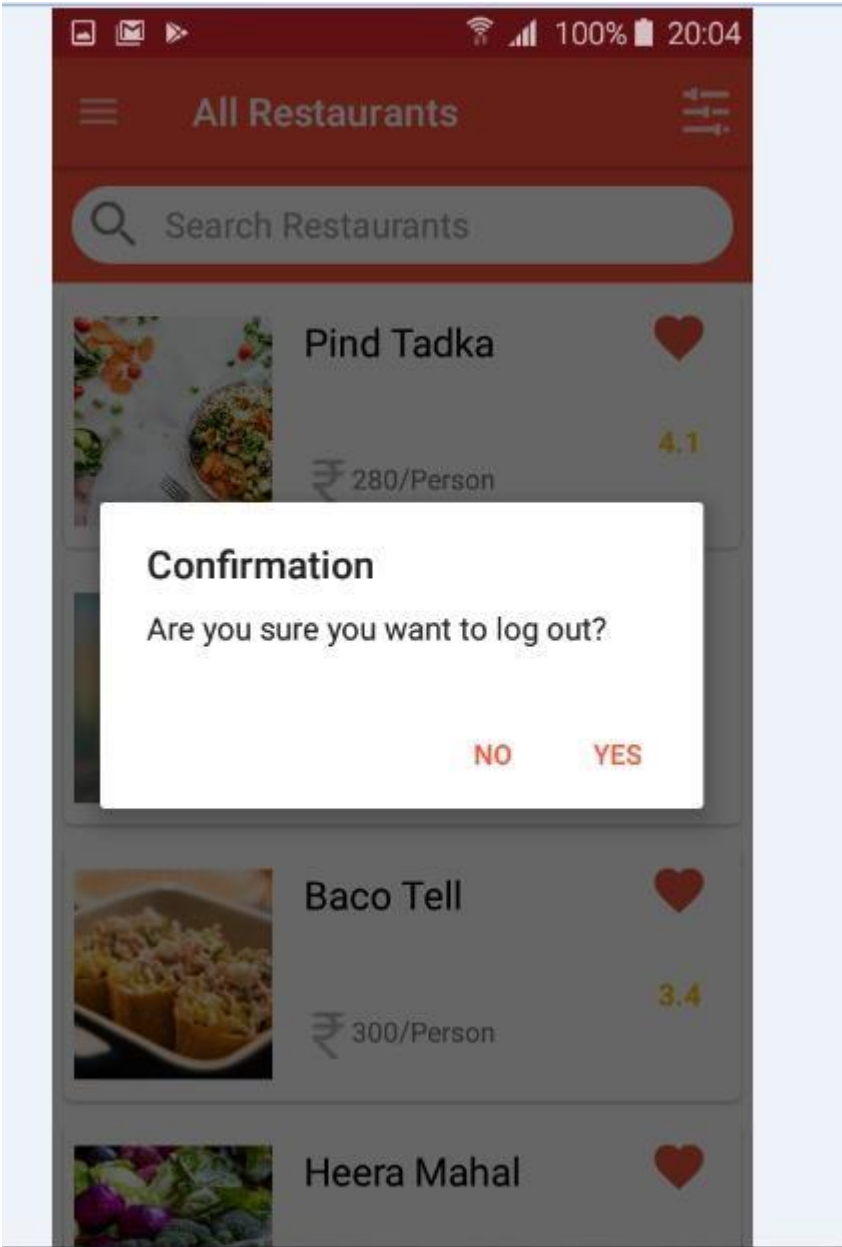


Figure 13: Order confirmation page

Chapter:6

Conclusion and Future Improvement

The project contains incentives, design patterns, detailed implementation and testing procedures for our mobile food program. We used a lot of issues while working on the project. By solving each of them, we have expanded our updated technical knowledge such as Android phone settings, Java system, PHP system, and MySQL statements. The food application goes well within the online environment. This is a beta-only release and there are many improvements to future releases:

Like a GPS receiver, it would be good to have full GPS features such as map display, directions, and current speed used on the phone. Additionally, the phone app includes voice switches with turn-by-turn directions. In this way, the phone app can completely replace the normal GPS device. As an open source, great access for all Android phone owners. The call feature is easy to connect to the restaurant.

The scope of this project is to have a user mobile app to easily find food / restaurant information online on Android. The current idea of the restaurant owner to upload his menu to send to the manager. We already have a phone server to access it. It makes sense when a web server is set as a web application so that the user can upload menu information to the web.

Since social networking is the current trend, our mobile phone app will become more popular if users can share information about certain foods with our friends easily.

References:

<http://www.techcrunch.com/2009/04/02/yelp-focuses-on-mobile-new-and-improvediphone-app-coming-soon/>

<http://labs.metacarta.com/blog/27.entry/geographic-queries-on-googleapp-engine/>

[1989] The Geographic Database - Logically Continuous and Physical Discrete. Peter Aronson. 1989.

[1993] Geographic Regions: A New Kind of Integrated GIS Feature. Jan van Roessel and David Pullar. 1993

[2003] Clarke Bishop: What is the Web Application Server ?, Retrieved January 2, 2010 from resultantsys web site: <http://www.resultantsys.com/index.php/general/what-is-a-webapplication-server/>

[2008] Ethan: Urbanspoon on the iPhone Retrieved 23 March 2010 from webbuspoon web site: <http://www.urbanspoon.com/blog/27/Urbanspoon-on-the-iPhone.html>

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

PLAGIARISM VERIFICATION REPORT

Date: 17-06-2021

Type of Document (Tick): PhD Thesis M.Tech Dissertation/ Report B.Tech Project Report Paper

Name: Sonali Gupta Yukti Katiyar Department: Cse Enrolment No 171274 ,171285

Contact No. 8726563015 E-mail. 171274@juitsolan.in ,171285@juitsolan.in

Name of the Supervisor: Prof.Arvind kumar

Title of the Thesis/Dissertation/Project Report/Paper (In Capital letters): Online food ordering app

UNDERTAKING

I undertake that I am aware of the plagiarism related norms/ regulations, if I found guilty of any plagiarism and copyright violations in the above thesis/report even after award of degree, the University reserves the rights to withdraw/revoke my degree/report. Kindly allow me to avail Plagiarism verification report for the document mentioned above.

Complete Thesis/Report Pages Detail:

- Total No. of Pages = 45
- Total No. of Preliminary pages = 5
- Total No. of pages accommodate bibliography/references = 3



(Signature of Student)

FOR DEPARTMENT USE

We have checked the thesis/report as per norms and found **Similarity Index** at²⁹.....(%). Therefore, we are forwarding the complete thesis/report for final plagiarism check. The plagiarism verification report may be handed over to the candidate.

(Signature of Guide/Supervisor)

Signature of HOD

FOR LRC USE

The above document was scanned for plagiarism check. The outcome of the same is reported below:

Copy Received on	Excluded	Similarity Index (%)	Generated Plagiarism Report Details (Title, Abstract & Chapters)	
	<ul style="list-style-type: none"> • All Preliminary Pages • Bibliography/Images/Quotes • 14 Words String 		Word Counts	
Report Generated on			Character Counts	
		Submission ID	Total Pages Scanned	
			File Size	

Checked by
Name & Signature

Librarian

Please send your complete thesis/report in (PDF) with Title Page, Abstract and Chapters in (Word File) through the supervisor at plagcheck.juit@gmail.com

171274

ORIGINALITY REPORT

29%

SIMILARITY INDEX

29%

INTERNET SOURCES

0%

PUBLICATIONS

%

STUDENT PAPERS

PRIMARY SOURCES

1

scholarworks.sjsu.edu

Internet Source

43%

2

www.ir.juit.ac.in:8080

Internet Source

3%

3

www.cs.sjsu.edu

Internet Source

1%

4

markisblogging.wordpress.com

Internet Source

<1%

5

ufdcimages.uflib.ufl.edu

Internet Source

<1%

6

www.mechanicalengineeringblog.com

Internet Source

<1%

7

events.rggi.edu.in

Internet Source

<1%

8

de.slideshare.net

Internet Source

<1%