

**OFFER-EMPORIUM: AN ANDROID BASED APPLICATION FOR FINDING
OFFERS**

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This Report Presented in Partial Fulfillment of the Requirements for the
Degree of Bachelor of Science in Computer Science and Engineering.

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APPROVAL

This Project titled “OFFER-EMPORIUM: AN ANDROID BASED APPLICATION FOR FINDING OFFERS”, submitted by Mahmuda Rahman Rina, Janatul Fardus Mim and Sadia Sarmin to the Department of Computer Science and Engineering, Daffodil International University, has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 02-01-2022.

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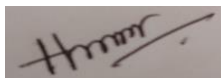
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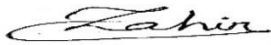
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DECLARATION

We hereby declare that, this project has been done by us under the supervision of **Mr. Gazi Zahirul Islam, Assistant Professor, Department of CSE** Daffodil International University. We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

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Finally, we must acknowledge with due respect the constant support and patients of our parents.

ABSTRACT

Nowadays, smart phone is a necessary part for our daily life. It is not only connection tool but also, it's used in various purpose like education, entertainment and many more. By using smart phone and android applications our life is getting more and more easier. Android is an open source that's why some of development tools free to use. So that, it's easy to develop any kind of android application.

The purpose of this project was to develop an android application which will work as our own assistant. This project is all about a platform where people can see each and every offers and deals which mainly includes the top brands and super shops of our country. So that, whenever the brand provides any kind of discount or offer people can easily see them all together and get to know about the product they are looking for.

The technology used in this project are the Android Development Kit (SDK), internal and external storage. The Android SDK is used to take care of general android application development, internal storage is used for storing the user's login information and user's data and the external storage is used for storing user's details, login information and user's data.

In this project we have set out to identify any methods currently used in related application to store and fetching data from different storage and how they can be implemented successfully. From this information we have find our own way, carried through the ideas, incorporating our own thoughts, to formulate suggestions on how this could be done.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

To conclude our educational process, we have to carry out with a project. Our project was about developing an android application. Android application is a wonderful gift of technology by using this we can do many difficult tasks within a moment. This app has some purposes such as- nowadays as people are getting busy and involved with their daily works and other stuffs so that have not much time to go outside for buying their desired things. That's why online shopping is getting more popular and reliable day by day. Customers can know about the offers from their comfort place. Also, they don't have to visit physical store to learn about the discounts in any product.

Our project will be a platform where we can see each and every offer and deals which mainly includes the top brands and super shops of our county. So that, whenever the brand provides any kind of discount or offer people can easily see them and get to know about the product they are looking for. This application has two panels. Which are: - admin and user panel. In admin panel an admin has to register first then they will login to the application and there will some options like delete banner, edit products, upload slider image and upload product. In user panel a user has to register first then they will login to the application and see some options. At first people will see start exploring page then they will see banner images, all categories, navigation bar [1]. User can search products by using search options and can see the available discounts in the products. They can also add any products as their favorite item and also, they can direct visit those brands websites and can purchase.

1.2 Motivation

Most of the time we go for shopping without knowing the products offer or discount we looking for. That mainly hampers our time also we face hassle and most of the time we can't buy our desired products within our budget. As we are unknown about the products offer prices because all brands don't provide the same discount price so most of the time, we had to buy them at high price. Also, we can't get to know about the offer price of clothes, food items accessories and many other important household's things at one place. So that when we feel the necessity of this project. We've been making as our project will give the idea about the trending offers of every need able thing we want. Whenever the user wants to check they can learn about the discounts.

1.3 Objectives

The main reasons of developing this application are: -

- User friendly
- Save times and efforts
- Realtime data processing
- Get complete details of the products and brands
- Can match many brands
- Can give clear idea about latest deals in one place
- Provide an easier lifestyle

1.4 Expected Outcome

- People can get to know about each and every discount of top brands in one platform.
- It will help them to find their desired products within their budget.
- It will reduce facing hassle as people can decide it from home.
- It will save our valuable time.
- Also, the main thing is It's saving our money.
- People don't have to visit each and every brand's own website specifically because they can visit through our application.
- Every trending update will be shown Infront of people.

1.5 Report Layout

First section of venture report, we examined about the outline, inspiration, level headed and the normal results. In second section we examined about our venture foundation. Third section is about Prerequisite Particular that what we have executed in our task. We presently examined about classifier calculations. Fourth part is about plan particular of our task and fifth section is about execution and testing of our undertaking. In conclusion, in 6th section is about rundown, future degree about additional spaces for study in related field.

CHAPTER 2

BACKGROUND

2.1 Introduction

Showing discount details in one place is a way to quickly draw people attention into our application. Anytime this application will show a customer the offers or discounts of the brands they want that they can save money and time. Since they can visit directly the website of the brands through our mobile application so they can also order their desired products.



Figure 2.1: Discount of Top Brands

2.2 Related Works

It is very hard for people to find about all products discount in one place from anywhere. It could be said that there is no suitable android application. Recently users, uses many websites for checking offers and discounts of product. But it is more difficult to visit websites every time for different products and brands. In present-day android telephone client extending step by step [2]. The majority of the android telephone show size between 5 to 6.8 inch that is the reason site page not appropriately displayed in android telephone show. So that, we trust "An Android Based Deal Offer System" application helps client appropriately for looking their ideal item's proposal with next to no issue.

2.3 Comparative Studies

This technique is regularly utilized in untimely phases of progress of a part of science. It very well might be assisted specialist with moving from introductory phase of investigational contextual analyses to a more development phase of general hypothetical model [3]. People can use to see offers by visiting this website named “JotoDeal”. But this website is not providing all types of products and also since it is a business website so we will just see those product’s offer which they want to sell. Those attributes are not enough to fulfil user demand. They are also some limitations in their site. So that we are interested to developed “Offer-Emporium” android-based project. We believe that our exclusive application can make user friendly and also fulfil their requirement successfully.

2.4 Scope of the Problem

Offer Emporium is all about finding offers over android based application. Its major programming language for front-end is java, xml for design and for back-end we use firebase. Our center of attention here to simplify and increase the efficiency of searching offer system for users. We kept options for customers to visit website belong with product. Users will also be able to list their wanted products by favorite option.

2.5 Challenges

There is no work without challenge in like manner, in our undertaking we confronted a few difficulties. Firstly, we were trying to create offer emporium application in all stage of people. Because of most of the rural areas people don't have android phone and there are also network issues. That's why they cannot know about latest offers and deals of the product they need. That's why they fail to go and buy products in time with their budget and lose their money. So, user should be informed the consequence of our Offer Emporium as well as tell them the benefits of our application.

CHAPTER 3

REQUIREMENT SPECIFICATION

3.1 Introduction

Each undertaking needs the investigation of plan. So that, it turns out to be easier to use for the clients. Thus, we attempted to explore the situation requested and very much attracted and having no inconvenience it. We pick a top-of-the-line android form so every single gadget can snatch it.

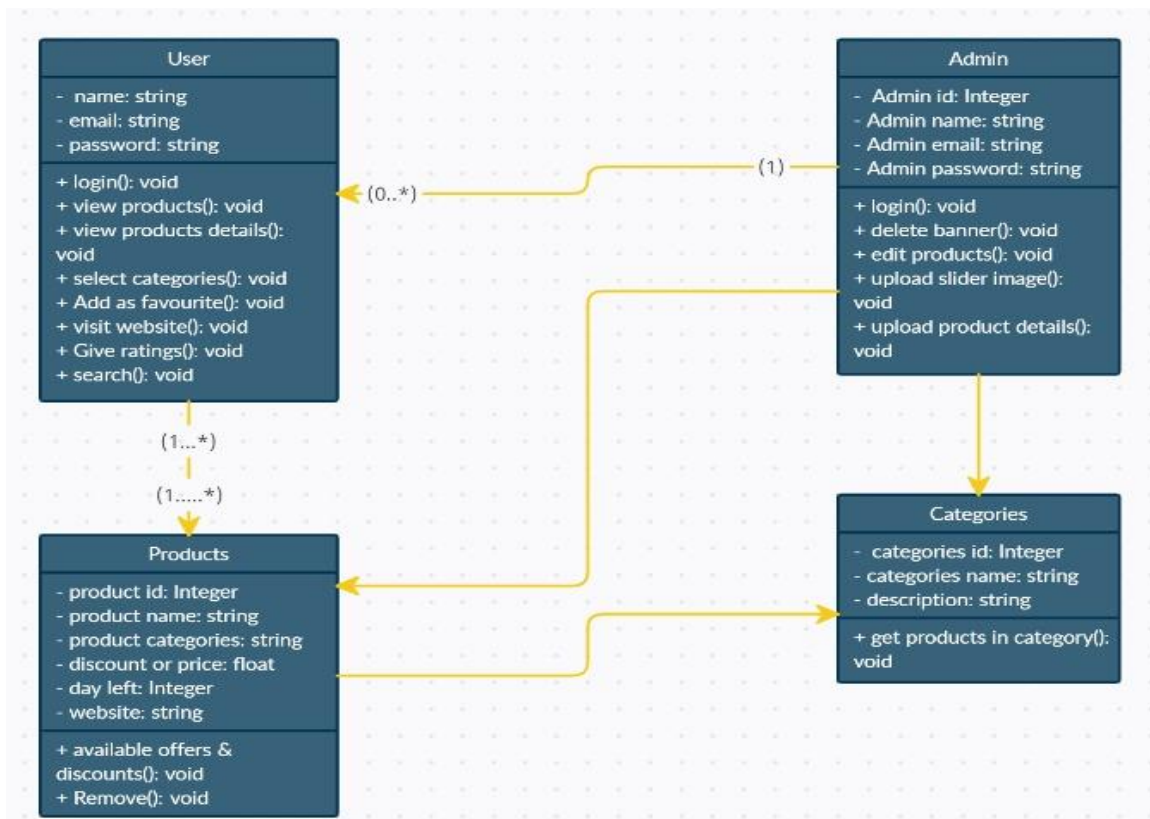


Figure 3.1: Class Diagram

General block diagram of our project: -

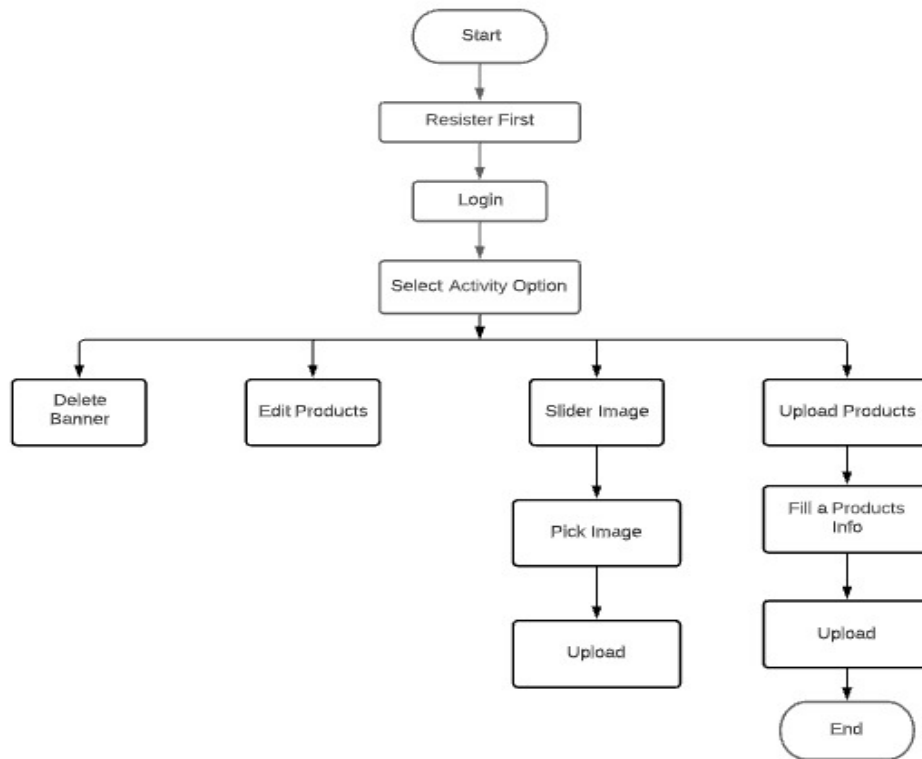


Figure 3.2 : General block diagram for admin

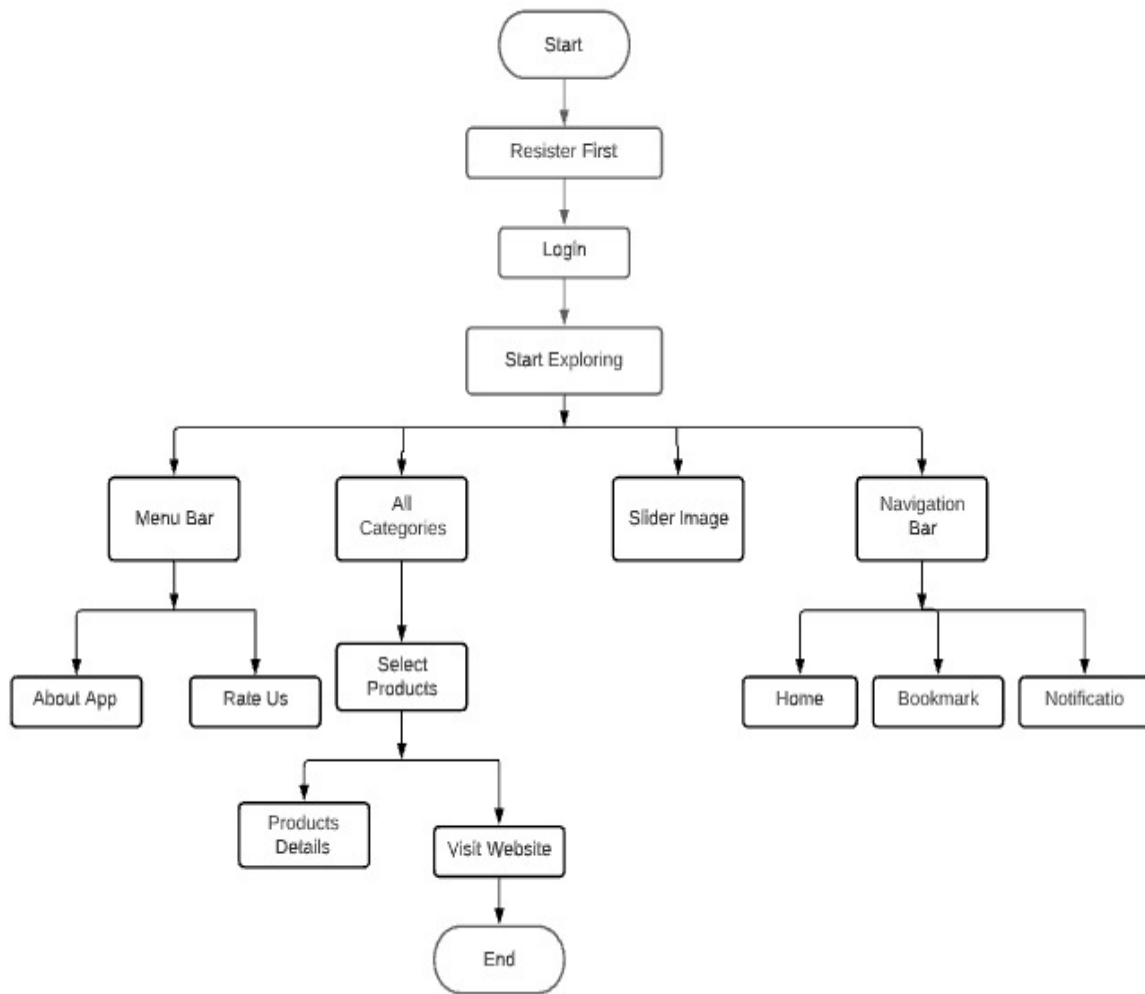


Figure 3.3: General block diagram for user

3.2 Requirement collection and analysis

For our work gathered so many fundamental and developing the application we want some primary necessity. We can partition our need into two sort- programing and equipment.

3.2.1 Programing

Each undertaking needs examination of plan. So that, it turns out to be easier to use for the clients, justifiable so this venture conveys in the comparable manner. Along these lines, we attempted to explore the situation requested and very much attracted and having no confusion it. We pick a top-of-the-line android form so every single gadget can snatch it. Here we picked android-studio-ide-201.7042882-windows.

For building up the application, we need: -

- Working Framework: Windows 10
- Language: Android SDK, Java
- Devices: Android Studio IDE
- Technology: Android, Java, Firebase

3.2.2 Equipment

Building up application, we want accompanying Hardware Requirements are given below:

- Processor: eleventh Gen Intel(R) Center (TM) i5-1135G7 @ 2.40GHz 2.42 GHz
Smash: 8 GB
- Space on plate(disk): 7.65 GB usable

For running the application:

- Device: android-studio-ide-201.7042882-windows
- Minimum space to execute: 20MB
- An advanced cell

3.3 Use case demonstrating and portrayal

Use-case graphs model lead of a framework and help out to catch necessities of framework is UML.

Use-case graphs express significant level purposes and chance of a framework. These graphs assist us with recognizing interconnections among framework and entertainers. Use-cases and entertainers being used case graphs express what framework does and how entertainers use it, however it isn't express how framework works inside.

Significant pieces of framework where use-case graphs enliven and clarify setting and necessities. A solitary use-case outline or put forth use-defense graphs to display components of framework can be demonstrated a mind-boggling framework by us. Ordinarily foster use-case outlines in awkward periods of a project and allude to them all through improvement strategy additionally done by us.

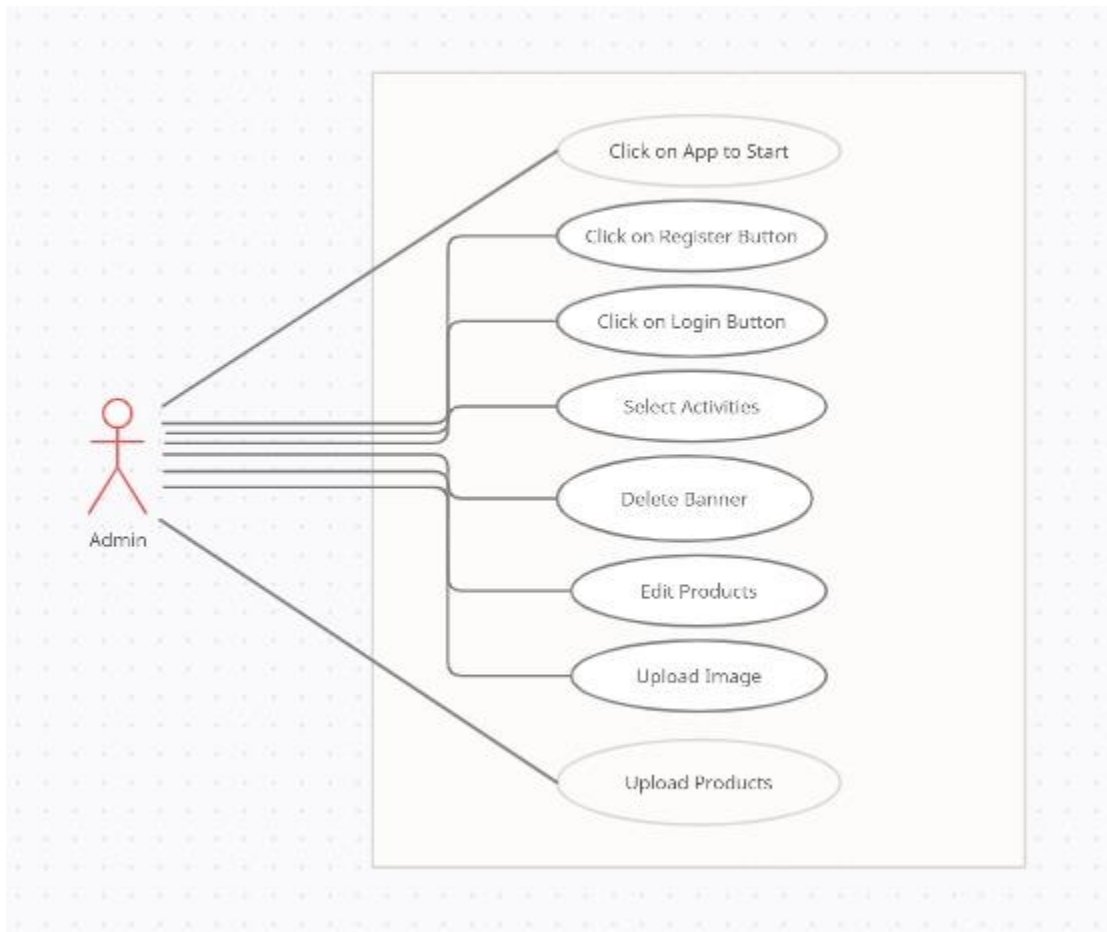


Figure 3.4: Use case chart for Administrator

As this use case chart is for Administrator so here admin is the main actor. Main activities in this apps are done by the admin. There are so many action that can be perform by the admin. Admin can edit, update, delete, upload all the products. Then that information will be saved in database.

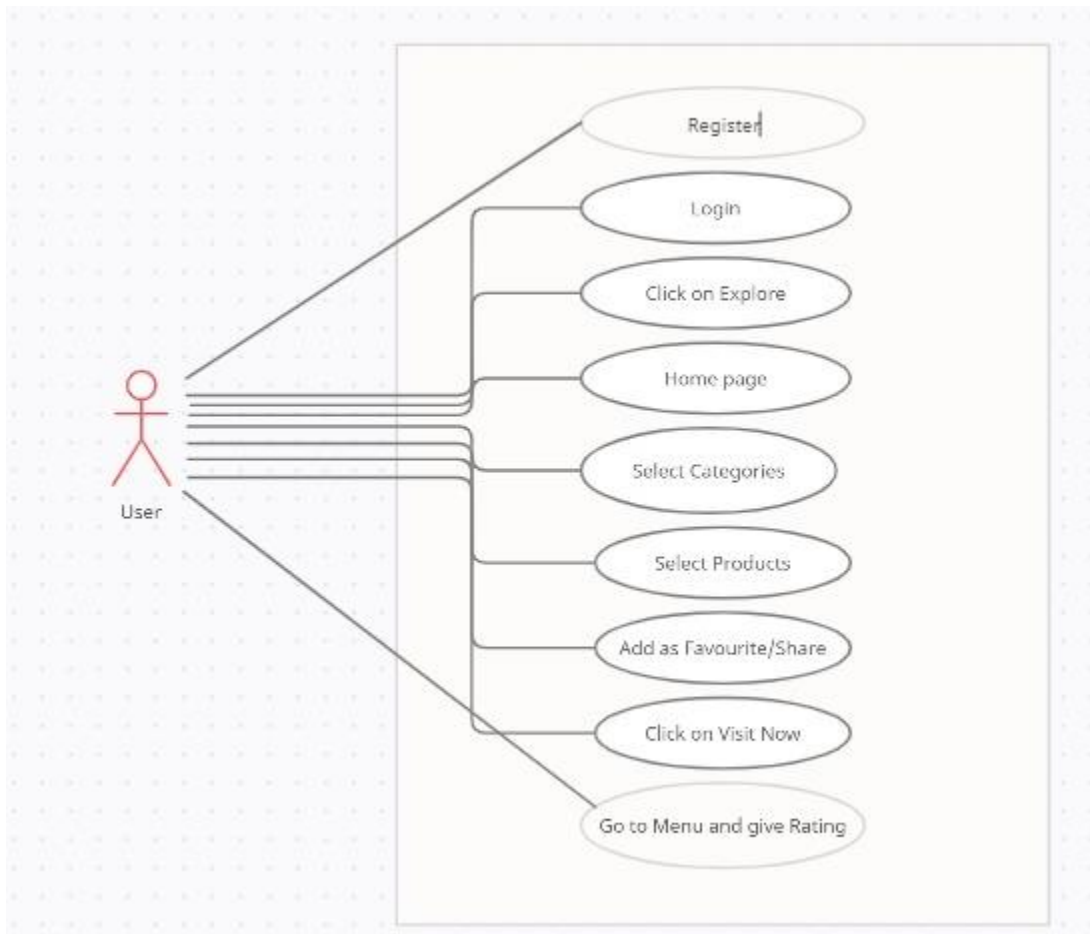


Figure 3.5: Use case chart for Client

As this use case chart is for client so here user is the main actor. Main activities in this apps are done by the user. There are some actions that perform by the user. User can select categories and select products, view product's details, add as favorite and also can share, also can visit product website which products they like. They can also give ratings to our application. Then that information will be saved in database.

3.4 Logical data model

Using Firebase Realtime Database for store and backup the important data. We need to input product information statically in our apps. Every information is all about for products discount and details.

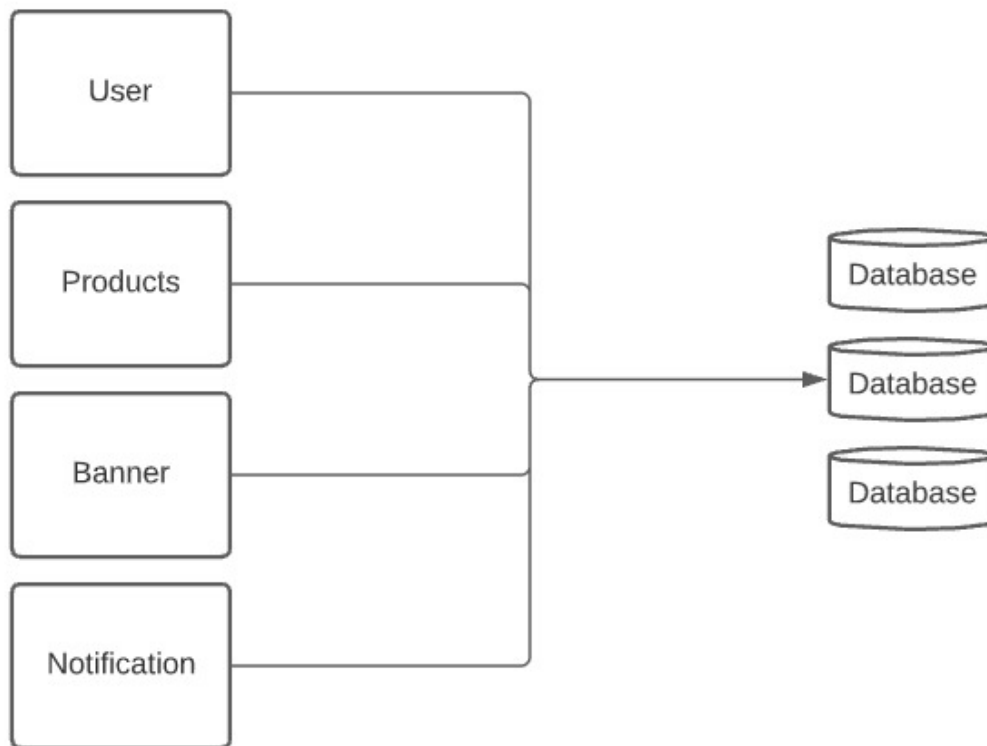


Figure 3.6: Database

3.5 Design requirement

In this application we work in android stage. Here client can undoubtedly track down their craving item's proposition. We realize that android is an open-source portable working framework that depends on Linux bit. Individuals who have android gadgets like advanced cells and tablet PCs can utilize android application. XML format has been utilized for configuration reason. We realize that in Android, specific gadgets to be utilized in the UI/UX and the relations between those gadgets and their holders are communicated by an XML-based format. Android treats the design documents as assets [4]. By knowing UI/UX parts at the hour of aggregating it tends to be extremely useful for us.

The upsides of XML-based design have given beneath: -

- XML is a notable and generally utilized organization.
- It is utilized for giving splitting of the UI from the code rationale. It can transform one without particularly affecting the other.
- Delivering XML yield is more straightforward than composing direct code, making head out allowed to have simplified UI apparatuses to make interfaces for android applications [5].

CHAPTER 4

DESIGN SPECIFICATION

4.1 Front-end Design

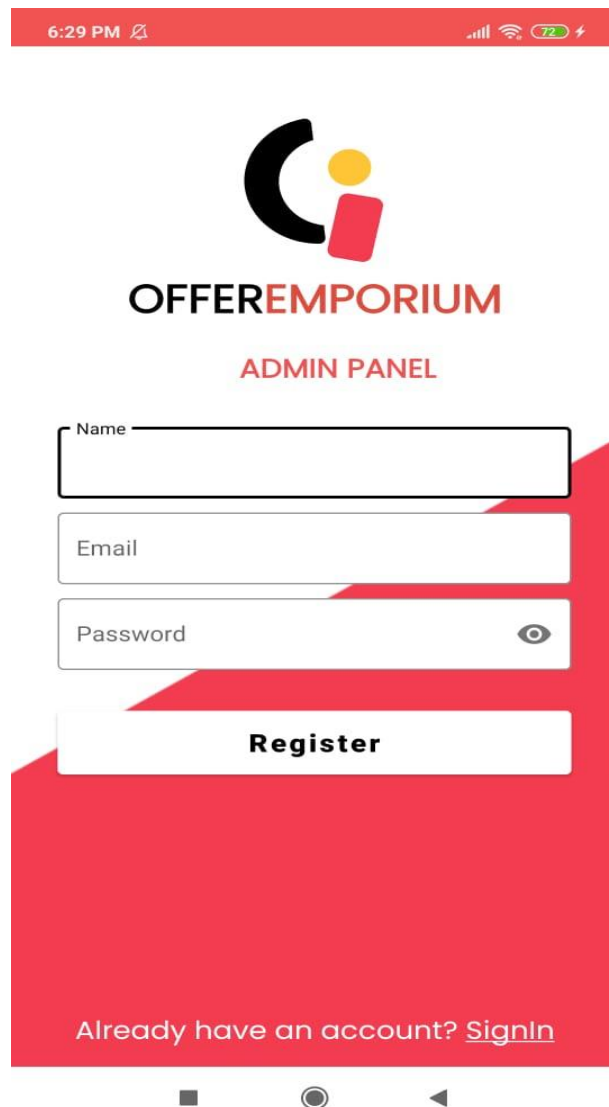
A system's graphical form is meant by front-end design. When user opens an application or any software whatever they see as the interface is basically the front-end design. It is the most important part because the users can be attracted by this. That's why front-end design of any application or software should be very beautiful and attractive. So that it can make people interested toward the app. We worked very hard on the front-end design to make our app so simple to use as well as attractive.

We use XML, in Layout Button, image view, text view, card view, recycler view, spinner to do the front-end designing of our project.

Some outlook of our project is given below-

Outlook of Admin Panel

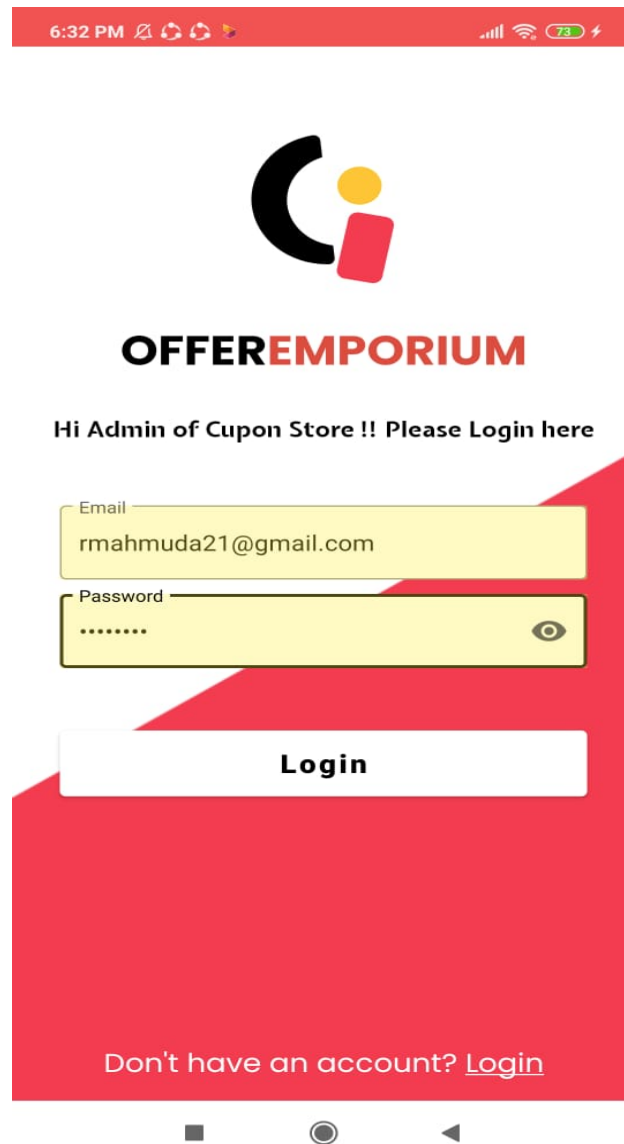
The following figure 4.1 is the Registration Page. If the admin is not registered to our application, then admin have to come to this page and register with his name, email and password (must be 6 digit or words).



The image is a screenshot of a mobile application interface for the 'OFFEREMPORIUM ADMIN PANEL'. At the top, there is a red status bar showing the time '6:29 PM' and various icons. Below the status bar is the application logo, which consists of a black 'C' shape, a yellow circle, and a red rectangle. The text 'OFFEREMPORIUM' is displayed in a bold, black, sans-serif font, with 'ADMIN PANEL' in a smaller, red, sans-serif font below it. The registration form is centered and consists of four white input fields with black borders: 'Name', 'Email', 'Password', and a 'Register' button. The 'Password' field has a small eye icon to its right. Below the 'Register' button, there is a red banner with the text 'Already have an account? [SignIn](#)' in white. At the bottom of the screen, there are three navigation icons: a square, a circle, and a triangle.

Figure 4.1: Register Page

The following figure 4.2 is the Login Page. After the admin is registered, he/she can Login to our application with his/her email and password (must be 6 digit or words).



6:32 PM

OFFEREMPORIUM

Hi Admin of Cupon Store !! Please Login here

Email
rmahmuda21@gmail.com

Password
.....

Login

Don't have an account? [Login](#)

Figure 4.2: Login Page

The following figure 4.3 is the Home Page. After login is done this page will be shown. Here admin can see some activity options like- delete banner, edit products, upload slider image and upload product.

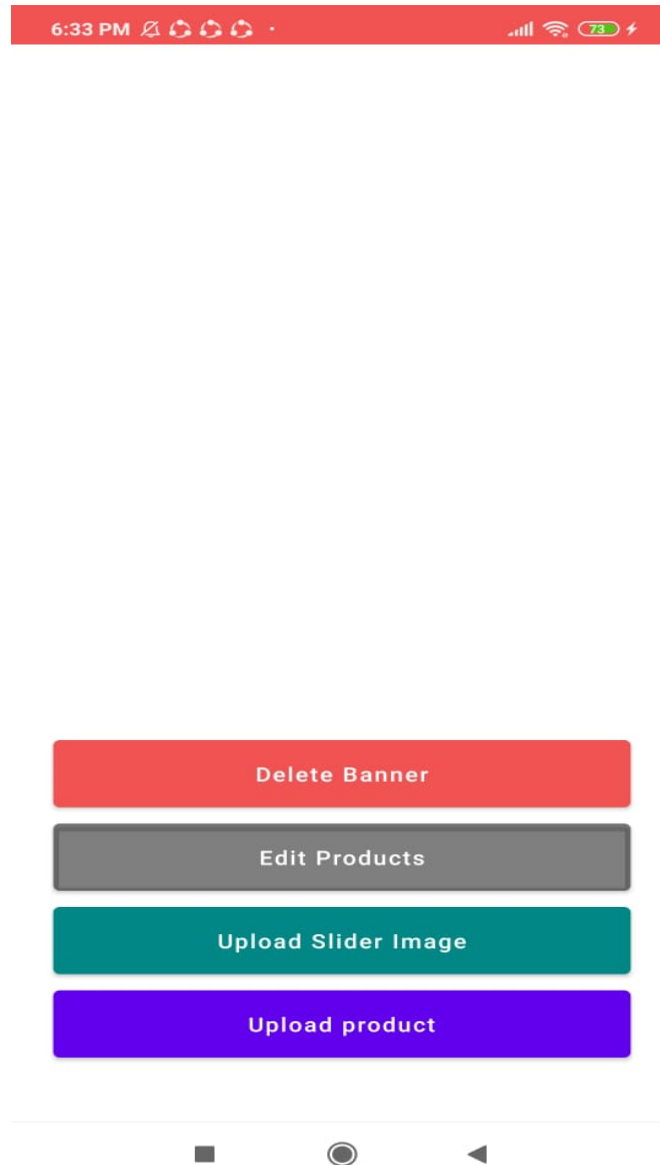


Figure 4.3: Home Page

The following figure 4.4 is the Delete Banner Page. Here admin can delete any banner when offer or discount will not available.

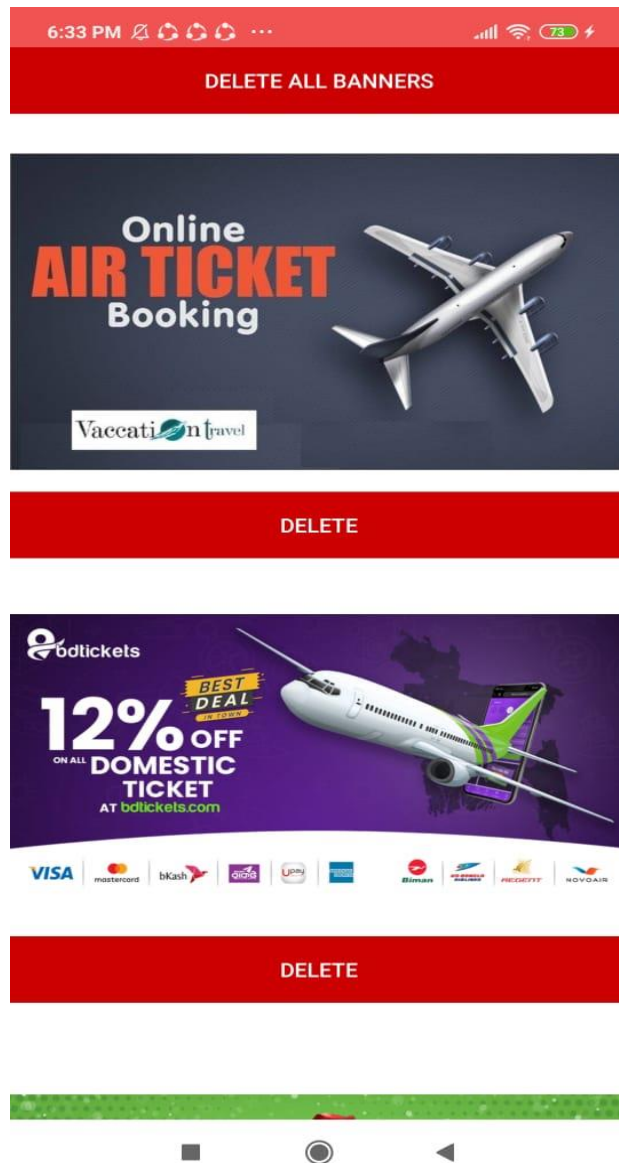


Figure 4.4: Delete Banner Page

The following figure 4.5 is the Delete Product Page. Here admin can delete any product when offer or discount will not available.

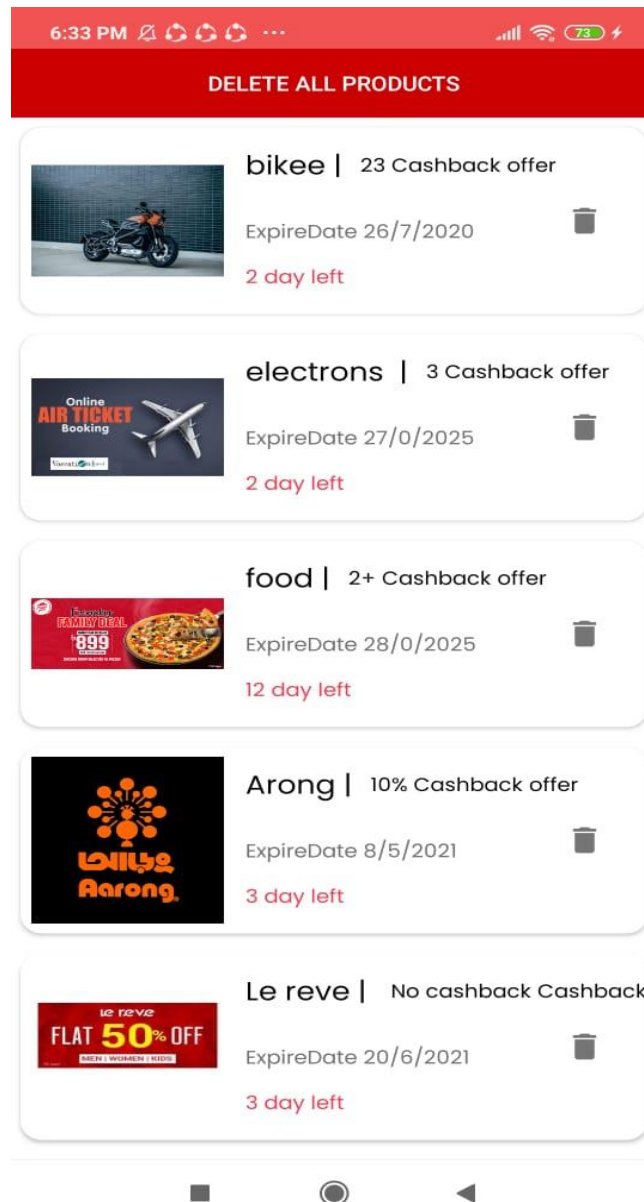
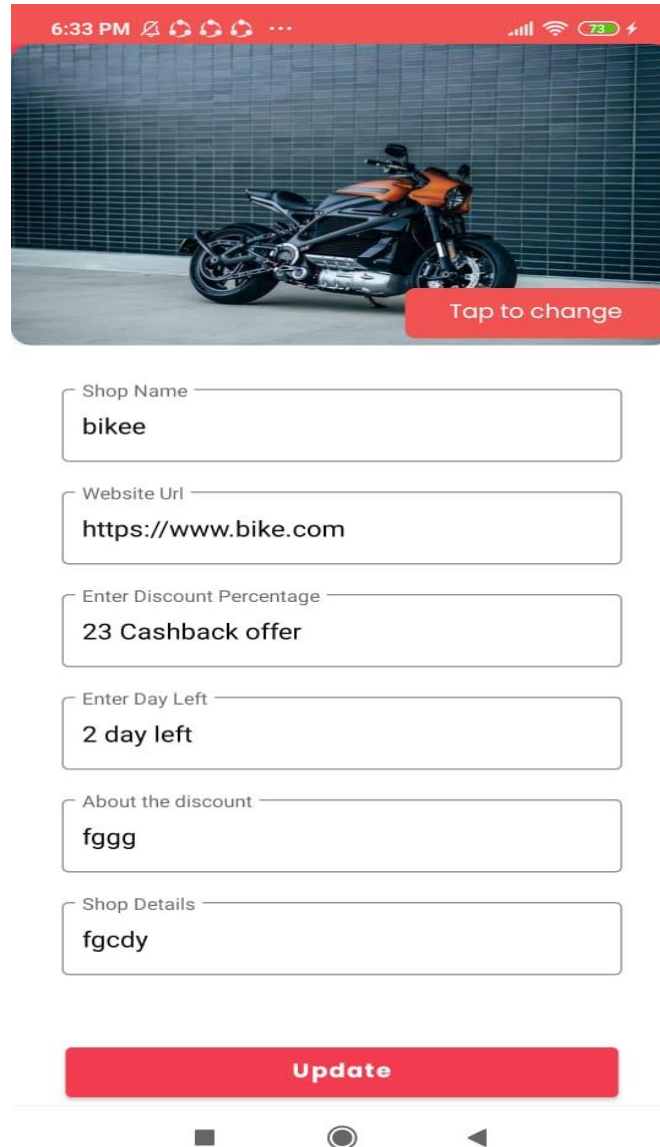


Figure 4.5: Delete Products Page

The following figure 4.6 is the Update Products Page. Here admin can update or edit product details.



6:33 PM 60% 73%

Tap to change

Shop Name
bikee

Website Url
https://www.bike.com

Enter Discount Percentage
23 Cashback offer

Enter Day Left
2 day left

About the discount
fggg

Shop Details
fgcdy

Update

Figure 4.6: Update Products Page

The following figure 4.7 is the Upload Slider Image Page. Here admin can pick an image and upload that as slider image.

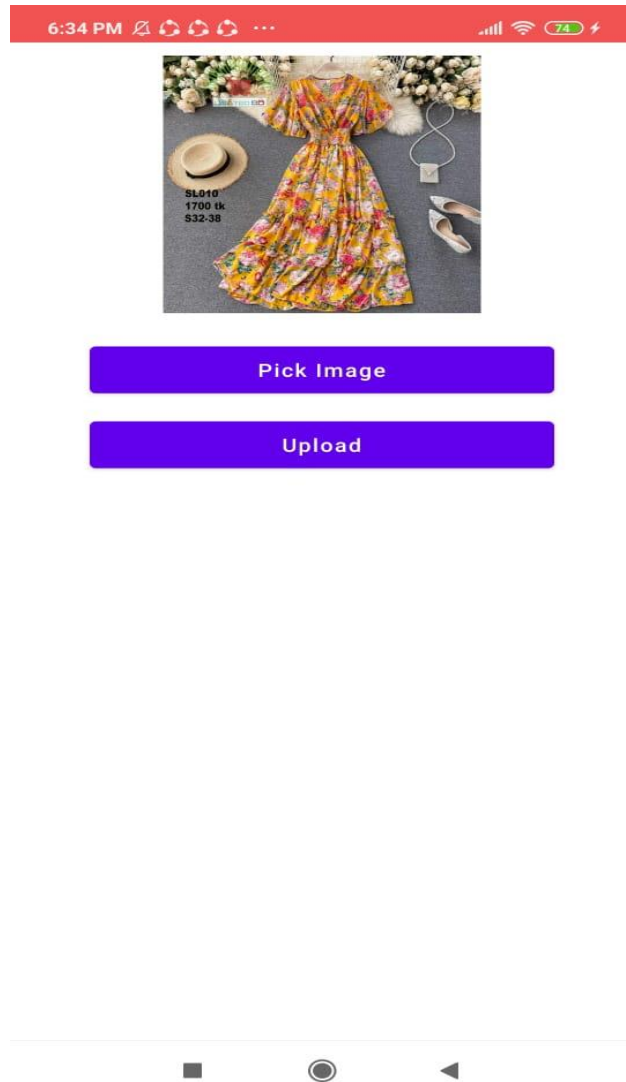
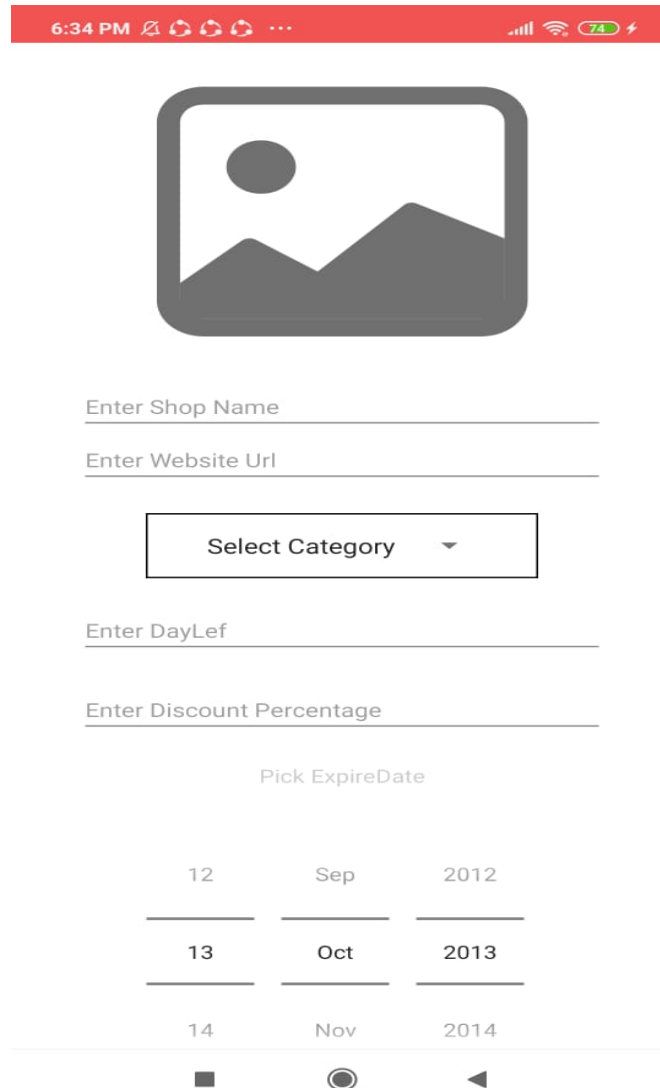


Figure 4.7: Upload Slider Image Page

The following figure 4.8 and 4.9 is the Upload Product's offer details Page. Here admin can fill up this form and upload it.



6:34 PM

Enter Shop Name

Enter Website Url

Select Category

Enter DayLef

Enter Discount Percentage

Pick ExpireDate

12	Sep	2012
13	Oct	2013
14	Nov	2014

Figure 4.8: Upload Product's offer details Page

Outlook of User Panel

The following figure 4.10 is the Registration Page. If the user is not registered to our application, then they have to come to this page and register with their name, email and password (must be 6 digit or words). They can also register with Google Account.

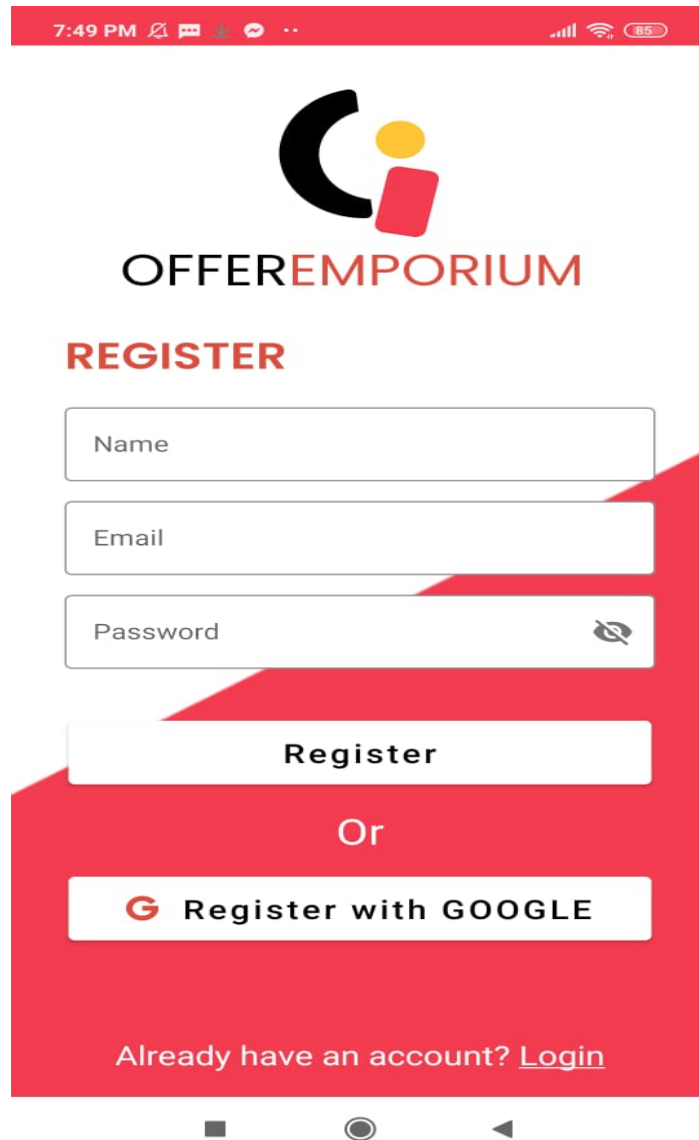
The image is a screenshot of a mobile application's registration page. At the top, there is a red status bar showing the time as 7:49 PM, signal strength, Wi-Fi, and battery level at 85%. Below the status bar is the OfferEmporium logo, which consists of a stylized 'i' made of a black semi-circle, a yellow circle, and a red rectangle, followed by the text 'OFFEREMPORIUM' in red. The word 'REGISTER' is displayed in large, bold, red capital letters. Below this are three white input fields with red borders: 'Name', 'Email', and 'Password'. The 'Password' field has a small eye icon on the right. Below the input fields is a white button with the text 'Register'. Underneath the button is the word 'Or' in red. Below 'Or' is a white button with the Google logo and the text 'Register with GOOGLE'. At the bottom of the form area, there is a link that says 'Already have an account? Login'. The entire registration form is set against a red background with a white diagonal stripe. At the very bottom, there are three navigation icons: a square, a circle, and a triangle.

Figure 4.10: Register Page

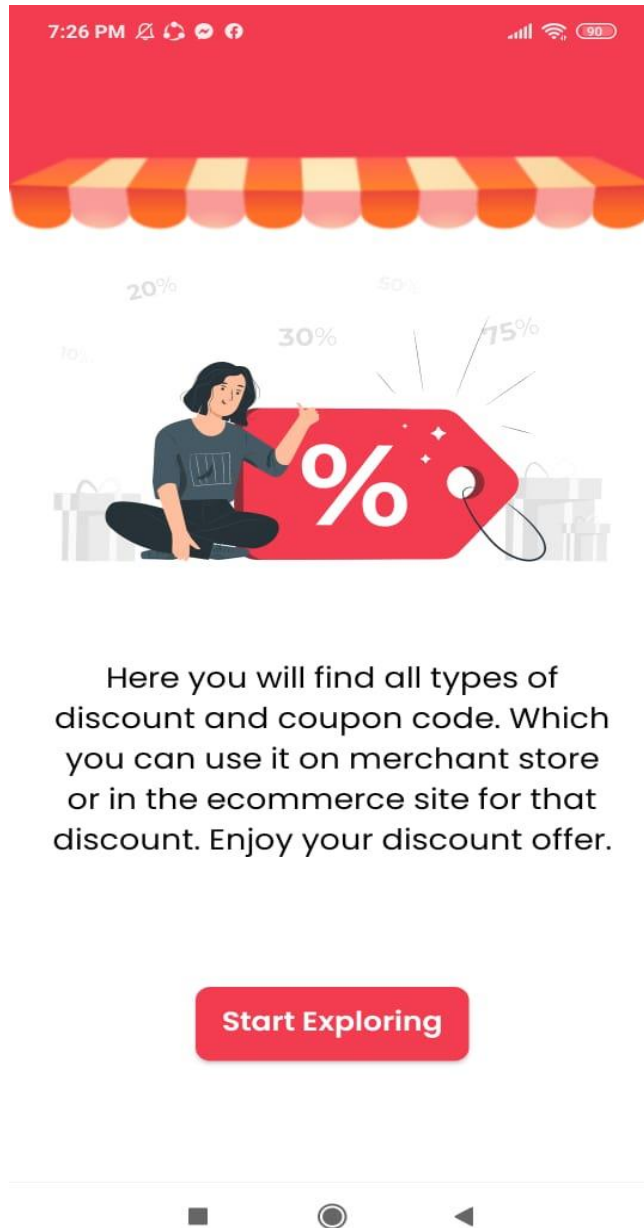
The following figure 4.11 is the Login Page. After the user is registered, they can Login to our application with their email and password (must be 6 digit or words).



The screenshot shows a mobile application interface for 'OFFEREMPORIUM'. At the top, there is a status bar with the time '7:26 PM' and various icons. Below the status bar is the app's logo, which consists of a stylized 'i' with a yellow dot and a red base, followed by the text 'OFFEREMPORIUM' in a bold, sans-serif font. The main heading is 'Welcome back' in a red, bold font. Below this, there are two input fields: 'Email' with the value 'janatual15-10531@diu.edu.bd' and 'Password' with the value 'janatul531'. A small eye icon is visible next to the password field. Below the input fields is a large white button with the text 'LOGIN' in black. At the bottom, there is a link that says 'Don't have an account? [SignUp](#)'. The background of the page is a solid red color.

Figure 4.11: Login Page

The following figure 4.12 is the Exploring Page. After click the explore button people will find all types of offers and discounts.



Here you will find all types of discount and coupon code. Which you can use it on merchant store or in the ecommerce site for that discount. Enjoy your discount offer.

Figure 4.12: Exploring Page

The following figure 4.13 is the Home Page. Here people can see all the categories, can search for product they looking for, add as their favorite and also can share with their friends and family.

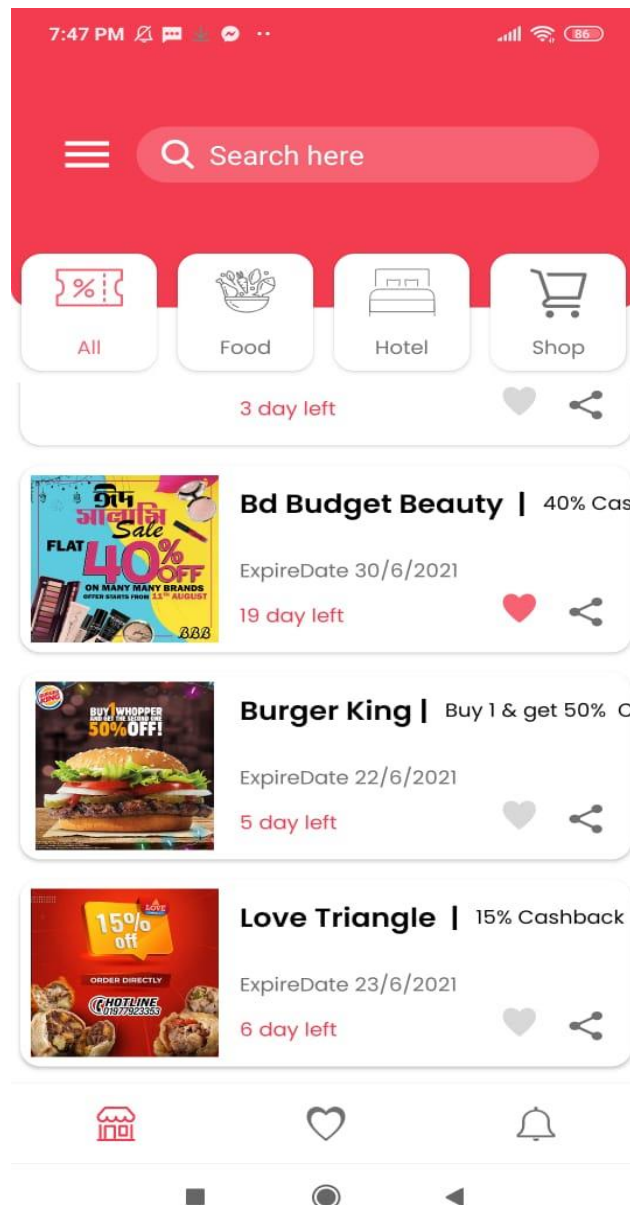


Figure 4.13: Home Page

The following figure 4.14 is the Navigation Screen. People can explore about discount, add products to bookmark, see notifications, know about app and give us rating.

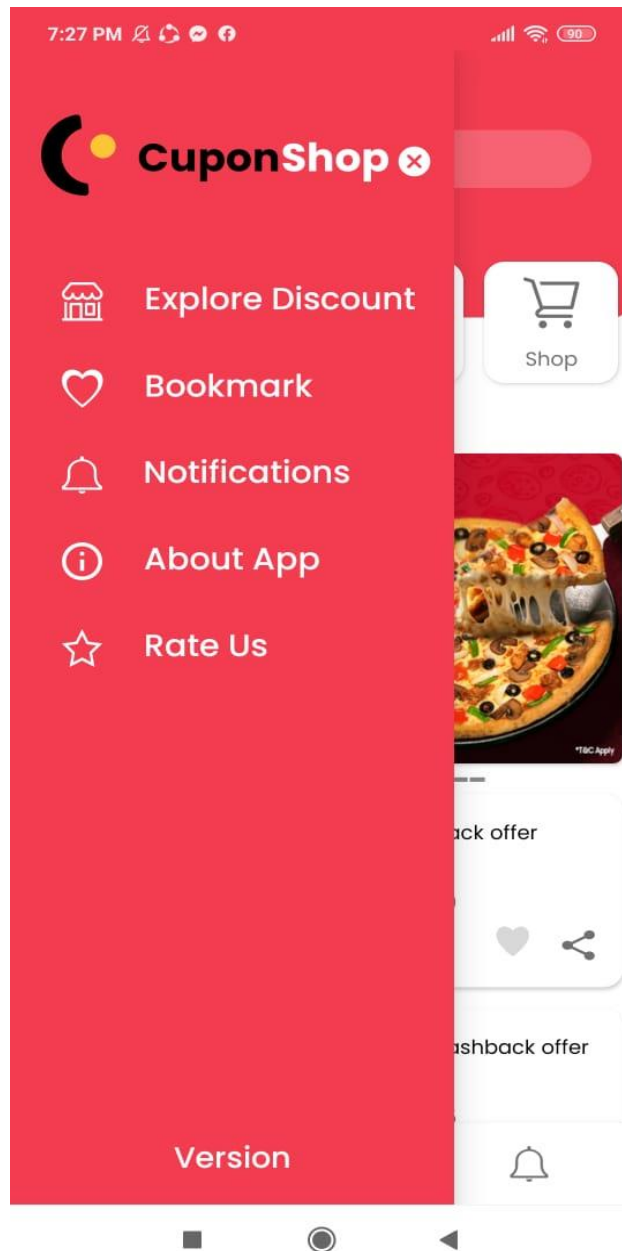


figure 4.14: Navigation Screen

The following figure 4.15 is the Discount Details Page. If any user clicks on the product they can see product's details and shop details. Also, can visit website for which product they like.

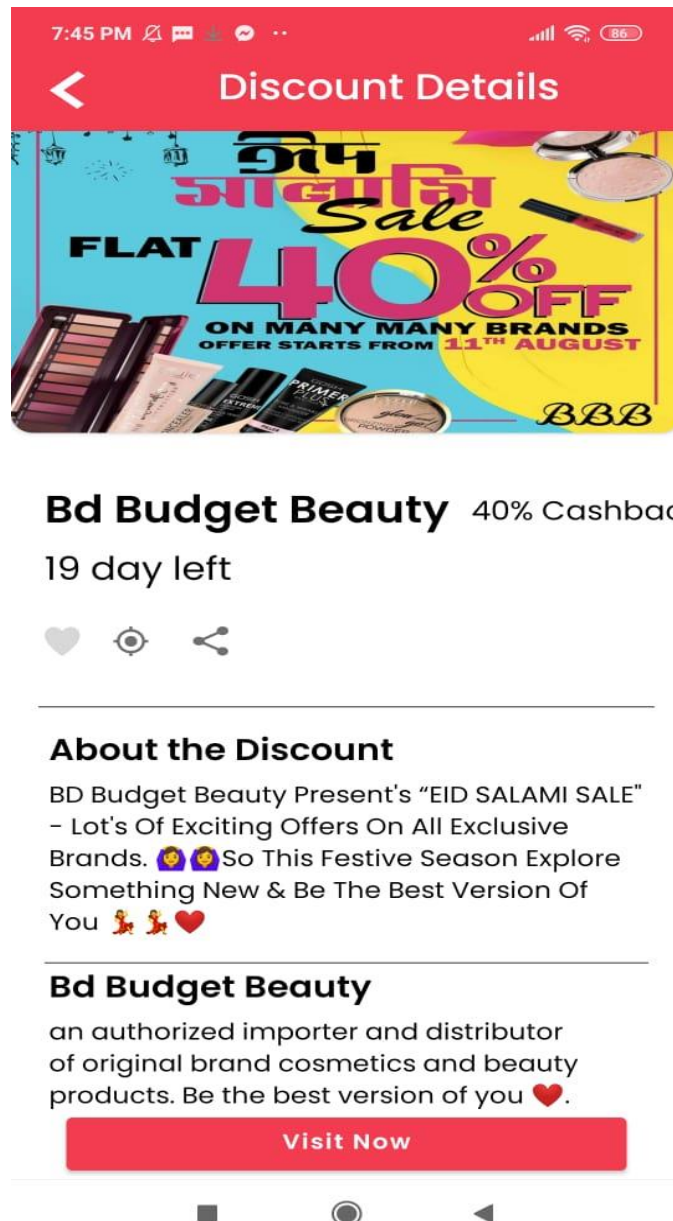


figure 4.15: Discount Details Page

4.2 Back-End Design

A system's behavior is determined by the back-end design which is also known as server-side design. It controls every action of the application so it is the main part of an application. In case of our project, it was the most critical part. The security of the application, structure and other contents are depended on the back-end design. For the back-end designing of our project, we have used Java language and back-end server is Firebase.

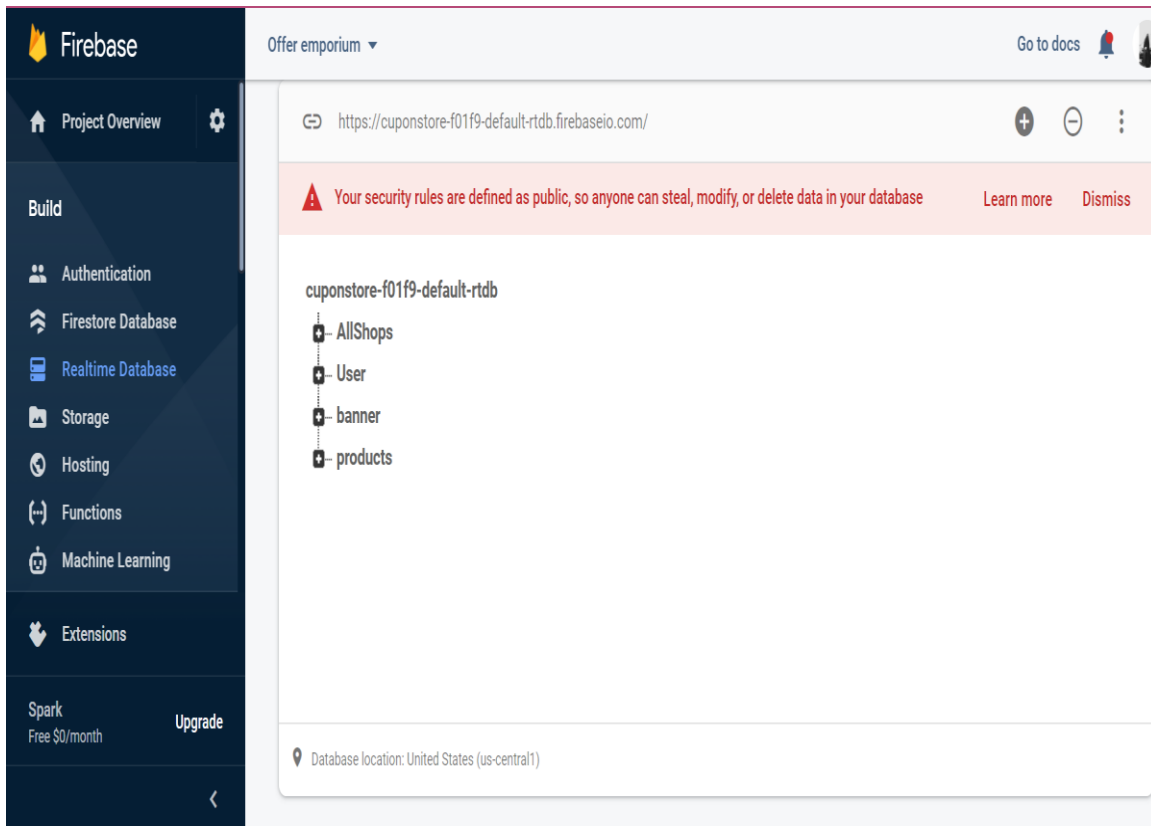


Figure 4.16: Firebase home page

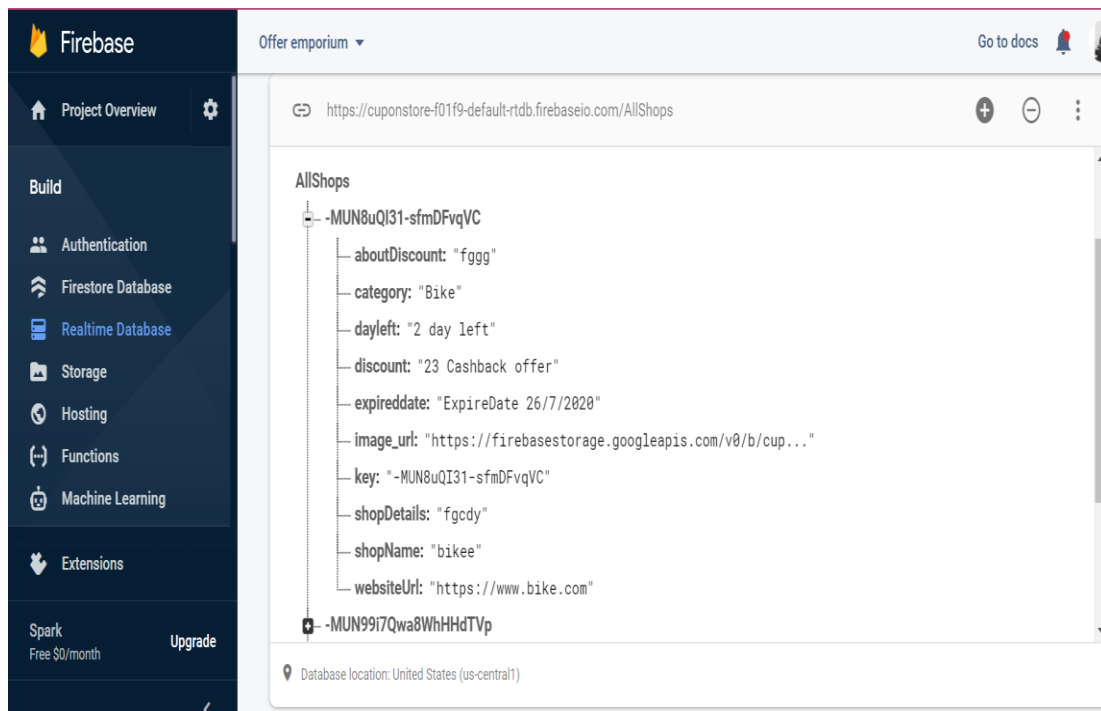


Figure 4.17: All Shops Database

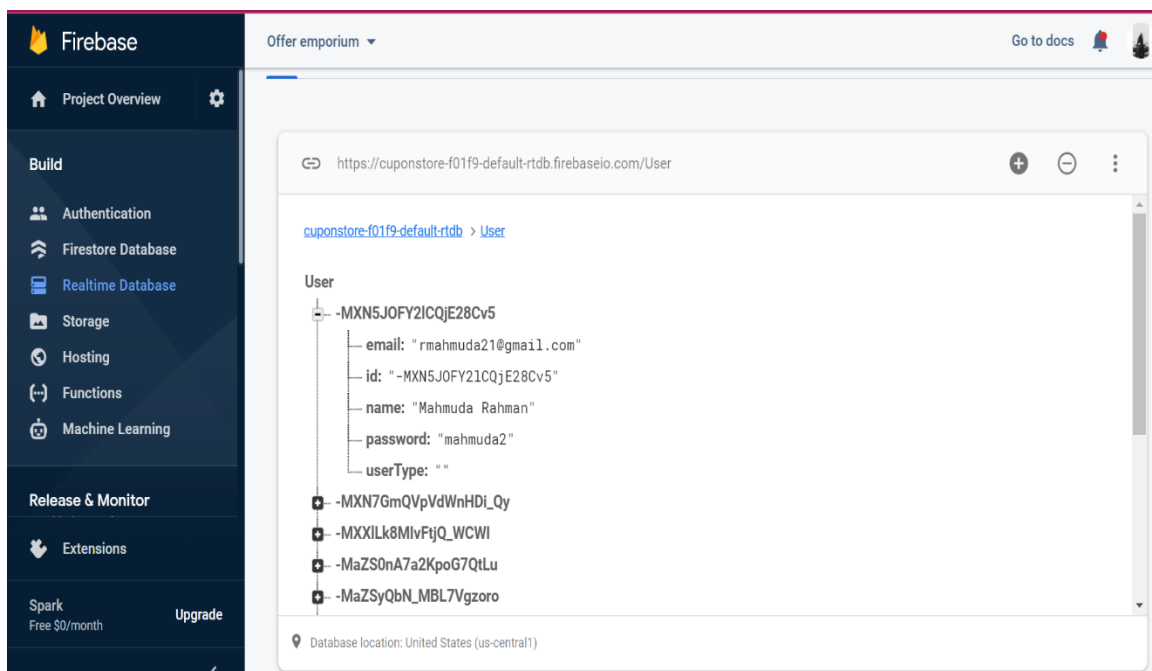


Figure 4.18: User Database

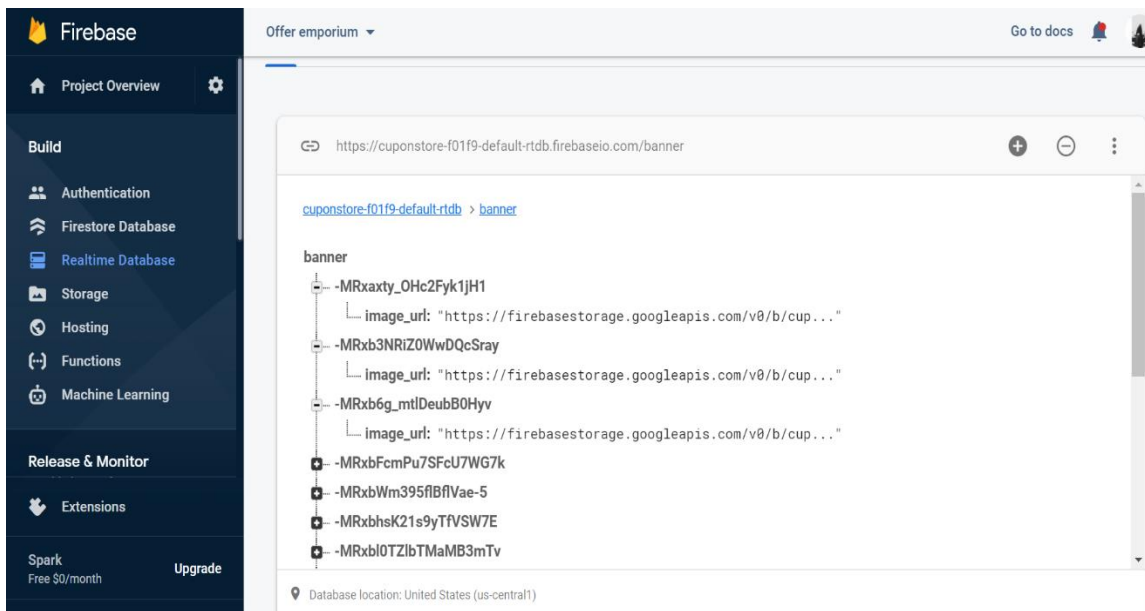


Figure 4.19: Banner Database

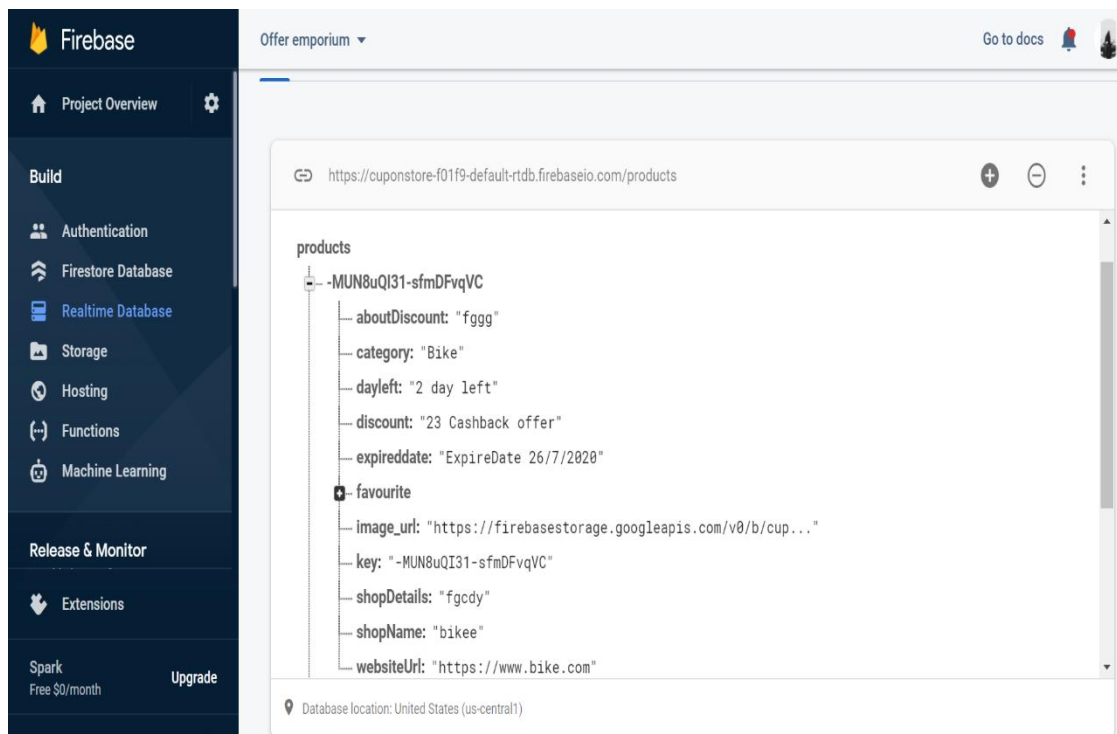


Figure 4.20: Products Database

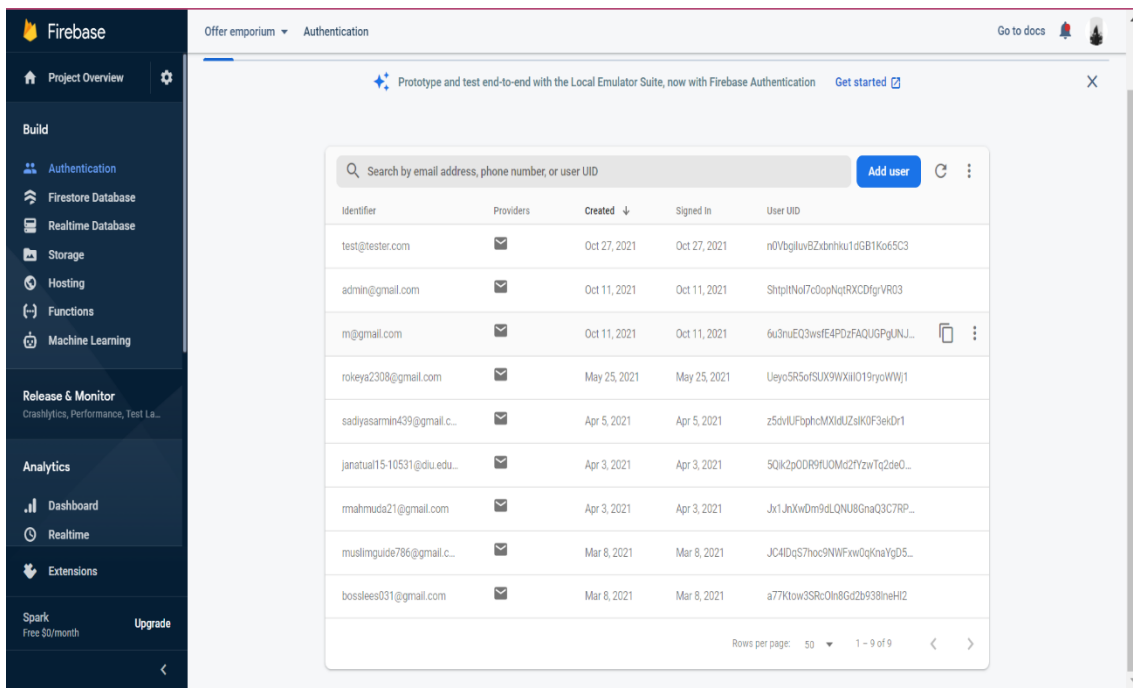


Figure 4.21: Authentication Database

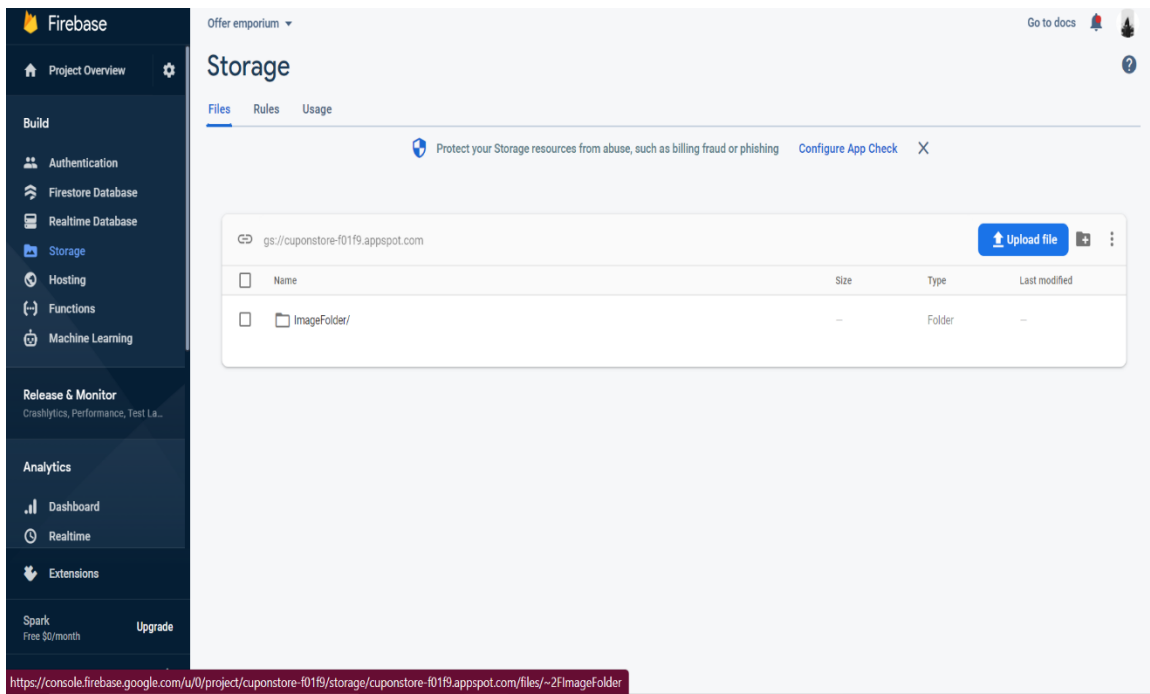


Figure 4.22: Firebase Storage

4.3 UI UX Design

When the front-end design represents graphically it is called the user interface (UI). When a user opens an application, they see the user interface (UI) and through the UI the user has to use that application.

For giving significant and pertinent encounters to clients, we utilize the interaction configuration terms to make items and this is called Client experience (UX) plan. Here the plan of the whole course of gaining and coordinating the item, including parts of marking, plan, convenience and capacity can be seen.

We focused on our application's UI UX design as soon as we finalized the requirements. We tried our level best to make the UI UX most simple and user friendly.

4.4 Execution Necessities

For completing an arrangement's execution and practice execution is must. It works along a strategy, plan and thought standard arrangement for performing something. Execution is the action that needs to follow the starting thinking for really occur. There are not many instruments and innovations which can be utilized for extending this venture/application; these are: Android, Java, Firebase and Android cell phone.

4.4.1 Android

Android is that sort of portable working framework which is extended by google and it is for cell phones clients. Android working framework is based on the Linux part. It is an open source that is the reason individual Android-based telephones every now and again specifically sort of graphical UI.

Android telephones regularly accompany distinctive implicit applications. It additionally upholds outsider projects. Designers can without much of a stretch produce program for Android utilizing free Android programming engineer unit (SDK) [6], [7].

4.4.2 Permission

For the necessity of our project, we had to add some permissions to the manifest file of our project. The permission is for the internet access.

“android.permission.INTERNET”

CHAPTER 5

IMPLEMENTATION AND TESTING

5.1 Execution of Data set

Firebase from Google is utilized carrying out of information base for putting away information. Firebase Realtime data set is a cloud facilitated information base that permits different stages like-Android, iOS and Web. Every one of the information is put away in JSON arrangement and any progressions in information, reflects straight by execution a sync across every one of the stages and gadgets [8] .

Firebase Realtime data set has no chart where the information is put away in JSON design. Essentially, the full data set is an immense JSON tree with heaps of numerous hubs. At the point when we plot our data set, we need to assemble the json erection in way that the information is accessible in more quiet manner by avoiding settling of youngster hubs.

When there is no internet connection firebase gives great support to us because it automatically stores the data offline. At the time a gadget interfacing with web, every one of the information will be shipped off Realtime data set. Anyway, qualified plate goal stores the information disconnected despite the fact that application resumes.

5.2 Execution of front-end design

An Android application has two parts- one is the front-end and another is the back-end. The visual piece of use that the client interconnects with is the front-end and which conveys all the code that works the application is the back-end.

Front-end:

- Front-end is concerning what a client ready to see.
- It very well might's be buttons, pictures, text, design, input field thus many.
- To plan these parts in android we want XML and Android programming. Hence, these writing computer programs are called front-end programming [9].

We used so many design layouts to implement and give the authentic look to our applications like-

- Navigation Drawer
- Button Navigation
- Custom Action Bar

Recycler view for user is-

- All Products
- All Favorites
- All Categories
- All Banners

Recycler view for admin is-

- All Products
- All Banners

5.3 Execution of Interactions

Action of dealing with the parts that keep away from brought together distinction authority that is the reason just acknowledged contrasts are taken note

- Action to survey, dissect and support change demands - ideal answer diminishes shot at harming impact on schedule
- Involves controlling differences that are concurred
- Requires conserving respectability of show degree baselines
- Requires assisting entire effect molded by change demand
- Movement to audit, endorse or reject suggested preventive or remedial activities and includes figure out changes across complete undertaking [10]

5.4 Testing Execution

The primary explanation of testing is found mistakes. At the point when we wrapped up building our application effectively then came an opportunity to test the application to see the outcome. The method involved with attempting to observe each achievable mistake in a work item is trying. It gives a method for investigating the functionalities of instruments, sub-congregations and a finished outcome it is the course of effort programming determined to secure that the product framework interfaces its provisions and client assumption and doesn't breakdown in an unseemly way [11]. Here are some various types of testing techniques.

5.4.1 Types of Testing

Unit Testing: It's focal point of consideration verification endeavor on the smallest unit of programming plan, the program. Here, we have is white box which manage and a few projects the means are controlled in adjust [12].

Integration Testing: Doing each program, we really need testing. When testing is done, modules are together and with the test data the final system is done by testing, especially intended to show that the system will work perfectly in all its featured situations [13]. In this manner, application testing is an acceptable think that all is correct and an instance to visible user that application works.

System Testing: It certifies that the whole united software system reaches preconditions. It examines a configuration to make sure familiar and foreseeable outputs. System testing example is the configuration-oriented system [14].

5.5 Test Results and Reports

For Admin: -

Table 5.1: Experiment for Sign in

No. of experiment	1
Name	Sign in
Input	Clicking sign in that runs LoginActivity.java
Anticipated output	Sign in GUI showed
Exact output	Sign in GUI showed true to form
Comments	Effective

Table 5.2: Experiment for Check Home page

No. of experiment	2
Name	Home page
Input	Clicking Sign in Button that runs MainActivity.java
Anticipated output	Details showed
Exact output	Home page details showed true to form
Comments	Effective

Table 5.3: Experiment for Upload Products

No. of Experiment	3
Name	Check Upload products
Input	Clicking Upload Button that runs affirmation toast
Anticipated output	Affirmation toast
Exact output	Affirmation toast as expected
Comments	Effective

Table 5.4: Experiment for Sign in

No. of experiment	1
Name	Sign in
Input	Clicking Sign in that runs LoginActivity.java
Anticipated output	Sign in GUI showed
Exact output	Sign in GUI showed true to form
Comments	Effective

Table 5.5: Experiment for Check Explore page

No. of Experiment	2
Name	Explore page
Input	Clicking Sign in Button that runs MainActivity.java
Anticipated output	Page showed
Exact output	Explore page showed as expected
Comments	Effective

Table 5.6: Experiment for Check Home page

No. of Experiment	3
Name	Home page
Input	Clicking Explore Now Button that runs MainActivity.java
Anticipated output	Details showed
Exact output	Details showed as expected
Comments	Effective

Table 5.7: Experiment for Check Product Details

No. of experiment	4
Name	Products details
Input	Clicking products that runs confirmation toast and showing us details
Anticipated output	Showing product's details
Exact output	Showing product's details
Comments	Effective

CHAPTER 6

CONCLUSION

6.1 Discussion and Conclusion

“Offer Emporium: An Android Based Application for Finding Offers” is a very convenient and inevitable mobile application. The purpose of this project is an improved understanding user with formulas. The reason behind starting this application for making something straightforward for those people who are looking for offers in different places.

Technical Feasibility

“Offer Emporium: An Android Based Application for Finding Offers” application is evolved for smart phones. Nowadays everyone has smart phones. People don’t need internet connection for using this application/service. When the installation is over people don’t have to access with internet. Now data connection is accessible everywhere and we require it for advanced development. Hence, we are hoping technical maintenance won’t be an issue for this project.

Profitable Feasibility

- Innovator can launch application on Google play store and make money from application.
- Make money from advertising.

Conduct-able Feasibility

- Who have android phone can access this application easily.
- For saving users time an user can search their desired products of any chapter.

CHAPTER 7

FUTURE SCOPES

7.1 Scope for Further Developments

This application will be modified in future. We will add more option in this application that will make our application more unique and user friendly. We are hoping that there will be more advancement in our technology in future. For client update rendition will acquire the market. For individuals this undertaking is extremely useful. Everybody will be amazingly reliable on the innovation in future and individuals will be intrigued start to like innovation that time our task will be all the more well like among individuals those are searching for offers and limits in various stage.

In future we are going to add features in this application as early as possible for users are following: -

- To add IOS for apple user's
- Live Chat
- GPS
- Send offers notification
- User forum
- Voting option

and many more.

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APPENDICES

Appendix A: XML design code

This appendix section contains some screen captures of our working procedure.

activity_home.xml

```
<?xml version="1.0" encoding="utf-8"?><layout
xmlns:android="http://schemas.android.com/apk/res/android"><androidx.constraintlayout
.widget.ConstraintLayout xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:tools="http://schemas.android.com/tools" android:layout_width="match_parent"
android:layout_height="match_parent" android:background="@drawable/homescreen"
tools:context=".ui.home.HomeActivity"><com.google.android.material.button.MaterialB
utton android:id="@+id/btnStartExplore"android:layout_width="wrap_content"
android:layout_height="wrap_content android:layout_marginVertical="@dimen/_40sdp"
android:background="@drawable/homescreen_button_background
android:text="@string/start_exploring"android:textAllCaps="false"android:letterSpacing
="0"android:textSize="@dimen/_14sdp"android:fontFamily="@font/poppins_semibold"
app:backgroundTint="@color/color_progressbar"app:layout_constraintEnd_toEndOf="p
arent"app:layout_constraintStart_toStartOf="parent"app:layout_constraintBottom_toBott
omOf="parent" app:layout_constraintTop_toBottomOf="@+id/tvHomeScreen"
/></androidx.constraintlayout.widget.ConstraintLayout></layout>
```

Activity_landing_page.xml

```
<?xmlversion="1.0"encoding="utf-8"?><layout
xmlns:android="http://schemas.android.com/apk/res/android"xmlns:tools="http://schema
s.android.com/tools"><androidx.constraintlayout.widget.ConstraintLayout
xmlns:app="http://schemas.android.com/apk/res-auto"
android:layout_width="match_parent"android:layout_height="match_parent"
```

```

tools:context=".ui.landingpage.ActivityLandingPage"><androidx.constraintlayout.widget
.ConstraintLayoutandroid:id="@+id/layoutTwo"android:layout_width="match_parent"
android:layout_height="match_parent"app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"app:layout_constraintTop_toTopOf="pare
nt"><com.google.android.material.navigation.NavigationView
android:id="@+id/navigationId"android:layout_width="wrap_content"
android:layout_height="match_parent"app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"><includeandroid:id="@+id/layout"layout=
"@layout/nav_drawer"/></com.google.android.material.navigation.NavigationView>
</androidx.constraintlayout.widget.ConstraintLayout></androidx.constraintlayout.widget
.ConstraintLayout></layout>

```

activity_login.xml

```

<?xml version="1.0" encoding="utf-8"?><layout
xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:tools="http://schemas.android.com/tools"><androidx.constraintlayout.widget.Cons
traintLayoutandroid:layout_width="match_parent"android:layout_height="match_parent
"android:background="@drawable/appback"tools:context=".LoginActivity"><com.googl
e.android.material.button.MaterialButton android:id="@+id/btn_login"
style="@style/Widget.MaterialComponents.Button"android:layout_width="match_parent
"android:layout_height="@dimen/_45sdp"android:layout_marginHorizontal="@dimen/_
25sdp"android:backgroundTint="@color/white"android:fontFamily="@font/poppins_reg
ular"android:text="login"android:textColor="@color/black"android:textSize="@dimen/_
15sdp"android:textStyle="bold"app:layout_constraintBottom_toTopOf="@+id/textview_
signup"app:layout_constraintEnd_toEndOf="parent"app:layout_constraintStart_toStartOf
="parent" app:layout_constraintTop_toBottomOf="@+id/til_edit_password" />

```

Fragment_favorite.xml

```
<?xml version="1.0" encoding="utf-8"?><layout
xmlns:app="http://schemas.android.com/apk/res-
auto"><androidx.constraintlayout.widget.ConstraintLayoutxmlns:android="http://schema
s.android.com/apk/res/android" xmlns:tools="http://schemas.android.com/tools"
android:layout_width="match_parent"android:layout_height="match_parent"
tools:context=".ui.fragmentFavourite.FragmentFavourite"><androidx.recyclerview.widge
t.RecyclerViewandroid:id="@+id/rvShops" android:layout_width="match_parent"
android:layout_height="wrap_content"app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"app:layout_constraintTop_toTopOf="pare
nt"tools:listitem="@layout/item_shops" /><View android:layout_width="match_parent"
android:layout_height="@dimen/_80sdp" app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"app:layout_constraintTop_toBottomOf="
@+id/rvShops" /> </androidx.constraintlayout.widget.ConstraintLayout></layout>
```

Fragment_notification.xml

```
<?xmlversion="1.0"encoding="utf8"?><layoutxmlns:app="http://schemas.android.com/a
pk/resauto"><androidx.constraintlayout.widget.ConstraintLayoutxmlns:android="http://s
chemas.android.com/apk/res/android"xmlns:tools="http://schemas.android.com/tools"and
roid:layout_width="match_parent"android:layout_height="match_parent"tools:context="
.ui.fragmentNotification.FragmentNotification"><androidx.recyclerview.widget.Recycler
Viewandroid:id="@+id/rvNotification"android:layout_width="match_parent"android:lay
out_height="wrap_content"app:layout_constraintEnd_toEndOf="parent"app:layout_cons
traintStart_toStartOf="parent"app:layout_constraintTop_toTopOf="parent"/><Viewandr
oid:layout_width="match_parent"android:layout_height="@dimen/_80sdp"app:layout_c
onstraintEnd_toEndOf="parent"app:layout_constraintStart_toStartOf="parent"
```

```
app:layout_constraintTop_toBottomOf="@+id/rvNotification"/></androidx.constraintlayout.widget.ConstraintLayout></layout>
```

Appendix B: java code

```
package com.example.offeremporium;
import android.content.Context;
import androidx.test.platform.app.InstrumentationRegistry;
import androidx.test.ext.junit.runners.AndroidJUnit4;
import org.junit.Test;
import org.junit.runner.RunWith;
import static org.junit.Assert.*;
@RunWith(AndroidJUnit4.class)
public class ExampleInstrumentedTest {
    @Test
    public void useAppContext() {
        Context appContext =
InstrumentationRegistry.getInstrumentation().getTargetContext();
        assertEquals("com.example.cuponstore", appContext.getPackageName());
    }
}

package com.example.offeremporium;import org.junit.Test;
import static org.junit.Assert.*;
public class ExampleUnitTest {
    @Test
    public void addition_isCorrect() {
        assertEquals(4, 2 + 2);
    }
}
```

```

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import androidx.appcompat.app.AppCompatActivity;
import com.example.offeremporium.databinding.ActivitySearchResultBinding;
import com.example.offeremporium.search.SearchActivity;
public class SearchResultActivity extends AppCompatActivity {
    ActivitySearchResultBinding binding;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        binding=ActivitySearchResultBinding.inflate(getLayoutInflater());
        setContentView(binding.getRoot());
        binding.searchResultToolbar.ivBack.setOnClickListener(new
View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent intent = new Intent(SearchResultActivity.this, SearchActivity.class);
                startActivity(intent);
            }
        });
    }
}

```

OFFER-EMPORIUM: AN ANDROID BASED APPLICATION FOR FINDING OFFERS

ORIGINALITY REPORT

29%	7%	4%	28%
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8	Submitted to Universiti Teknikal Malaysia Melaka	<1%
	Student Paper	