

A PROJECT REPORT
ON
“M.Sc ChaiWala Application”

Submitted to
Punyashlok Ahilyadevi Holkar Solapur University, Solapur

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Through
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SANGAMESHWAR COLLEGE, SOLAPUR
(Autonomous)

CERTIFICATE

This is to certify that,

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students of M.sc(CS) – II, Sem III have prepared a **PROJECT REPORT** entitled, “**M.Sc ChaiWala Application**” as a partial fulfillment of MSc Postgraduate Degree for the Academic Year 2023-2024 of Punyashlok Ahilyadevi Holkar Solapur University, Solapur.

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Project Guide

Examiner

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1. Introduction:

Project title is "**M.Sc ChaiWala Application**". The main aim of the project is to make a complete solution for chai sale system.

This project has login module. The administrator should enter the username and password to enter in the project. If it is correct, it will show next form or Home page. All chai details are entered in this module. The chai name, price, details can be modified in this module or delete if the chai is not available in the shop.

The number of chai is entered in this form and the total price for the chai are calculated and display all of report to the admin through this module.

1.1Project Overview:

Objectives

- This project will serve the following objectives: -
- Add and maintain records of available Tea.
- Make an easy to use for users.
- Add and maintain customer details.
- Add/Edit/View the records of Tea category.
- Add/Edit/View the records of Tea products.
- Generate bill.
- View bill report.

1.2 Existing system:

- This is manual system.
- The manually system required more time for processing.
- All the transactions are recorded manually on paper or register.
- Searching of information is difficult.
- Present system is not user friendly.
- Present system is generating bill manually.
- Present system calculate bill manually.

Problems of Existing System:

- 1. Not User Friendly:** The existing system is not user friendly because the retrieval and storing of data is slow and data is not maintained efficiently.
- 2. Difficulty In Reports Generating:** Either no reports generating in a current system or they are generated with great difficulty reports take time to generate in the current system.
- 3. Manual Operator Control:** Manual operator controls are there and lead to a lot of chaos and errors.

1.3 Proposed System:

Listing all available products, including coffee, snacks and other beverages.

In proposal system firstly the main advantages is there is no paper work and due to this there is less possibility of losing a data the information.

Sharing of data is also easy in proposed system and it bring lot of facilities and also it is easy to operate.

Characteristics Of the Proposed System:

- **User Friendly:**

The proposed system is user friendly because the retrieval and storing of data is fast and data is maintained efficiently.

- **Reports Are Easily Generated:**

Reports can be easily generated in a proposed system. So any type of reports can be generated in a proposed system, which helps the managers in a decisions-making activity.

1.4 Scope of Project:

Our project aims at business process automation i.e., we have tried to computerize various processes of Tea Shop.

- ✓ The admin can add, edit category details.
- ✓ The admin can add, edit products details.
- ✓ To prevent admin doing wrong operation validation are provided.
- ✓ Admin can generate bill.
- ✓ Admin can view sell report as per the date.
- ✓ Admin can view customer details.

2. Feasibility Study

The basic idea behind feasibility study is to determine whether the project is feasible or not. Feasibility is conducted to identify a best system that meets all the requirements. This includes an identification, description, an evaluation of the proposed systems and selection of the best system for the job. The requirements of the system are specified with a set of constraints such as system objectives and the description of the out puts. It is then duty of the analyst to evaluate the feasibility of the proposed system to generate the above results. Three key factors are to be considered during the feasibility study.

2.1 Project Feasibility:

- **Operation Feasibility:**

An estimate should be made to determine how much effort and care will go into the developing of the system including the training to be given to the user. Usually, people are reluctant to changes that come in their progression. The computer initialization will certainly affect the turn over, transfer and employee job status. Hence an additional effort is to be made to train and educate the users on the new way of the system.

- **Technical Feasibility:**

The main consideration is to be given to the study of available resources of the organization where the software is to be implemented. Here the system analyst evaluates the technical merits of the system giving emphasis on the performance, reliability, maintainability and productivity.

By taking the consideration before developing the proposed system, the resources availability of the organization was studied. The organization was immense computer facilities equipped with sophisticated machines and the software hence this technically feasible.

2.1 Hardware Specification:

- Android Operating System: Jelly Bean or Above.
- Processor: - Octa-core or Above.
- Internal Storage : - 2GB Or Above.
- RAM: - 4GB or Above.

2.2 Software Specification:

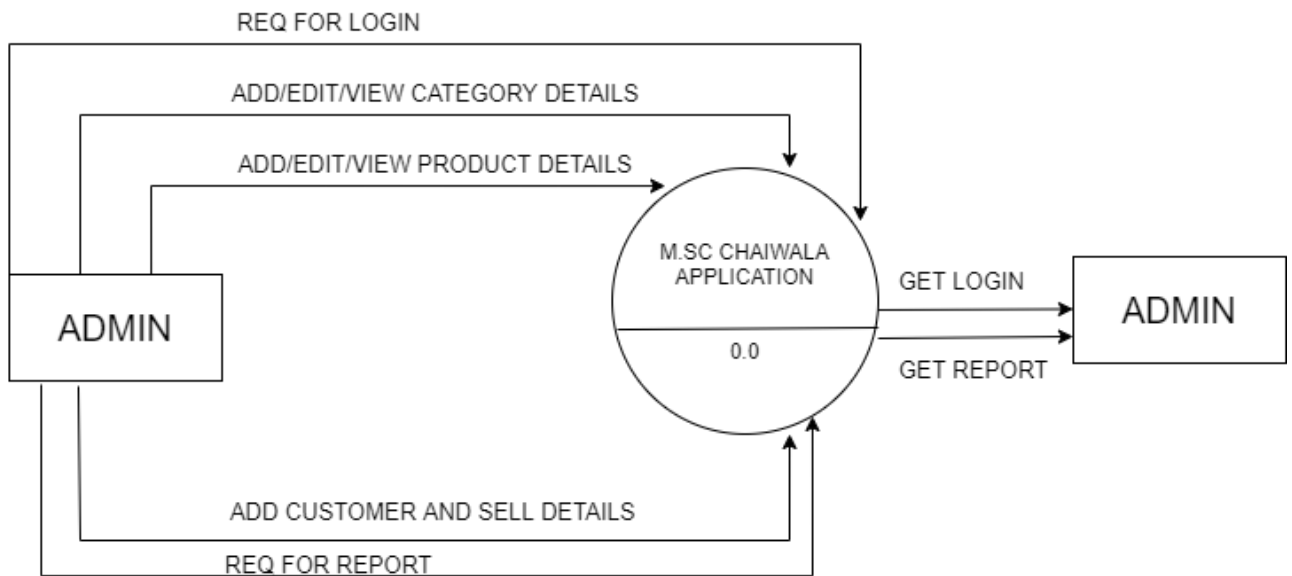
- Database: Google Firebase.
- Development Tool: Android Studio 4.1.
- Languages Used: Android.

3. System Design:

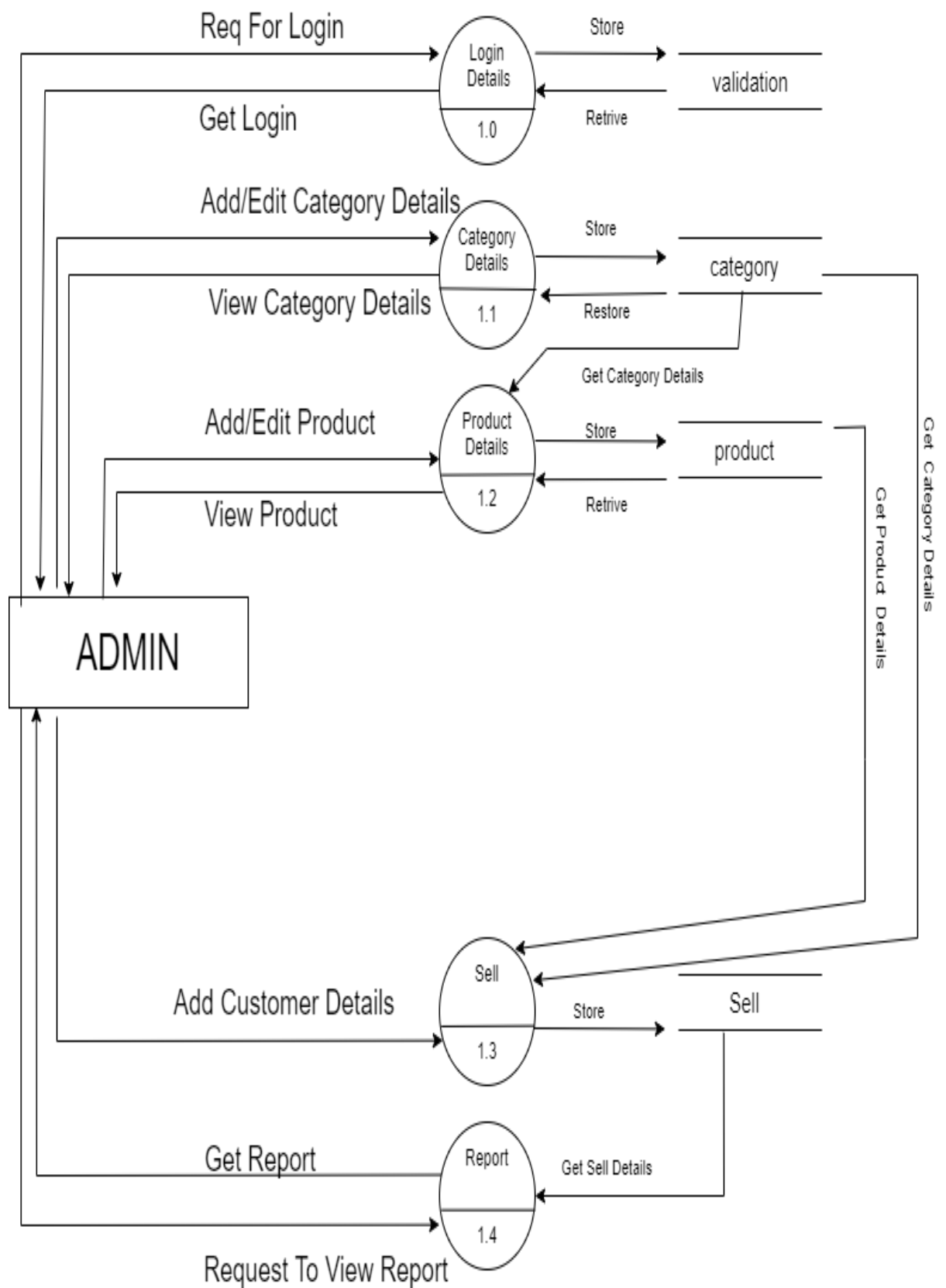
3.1 Data Flow Diagram (DFD):

- Context Level Diagram:

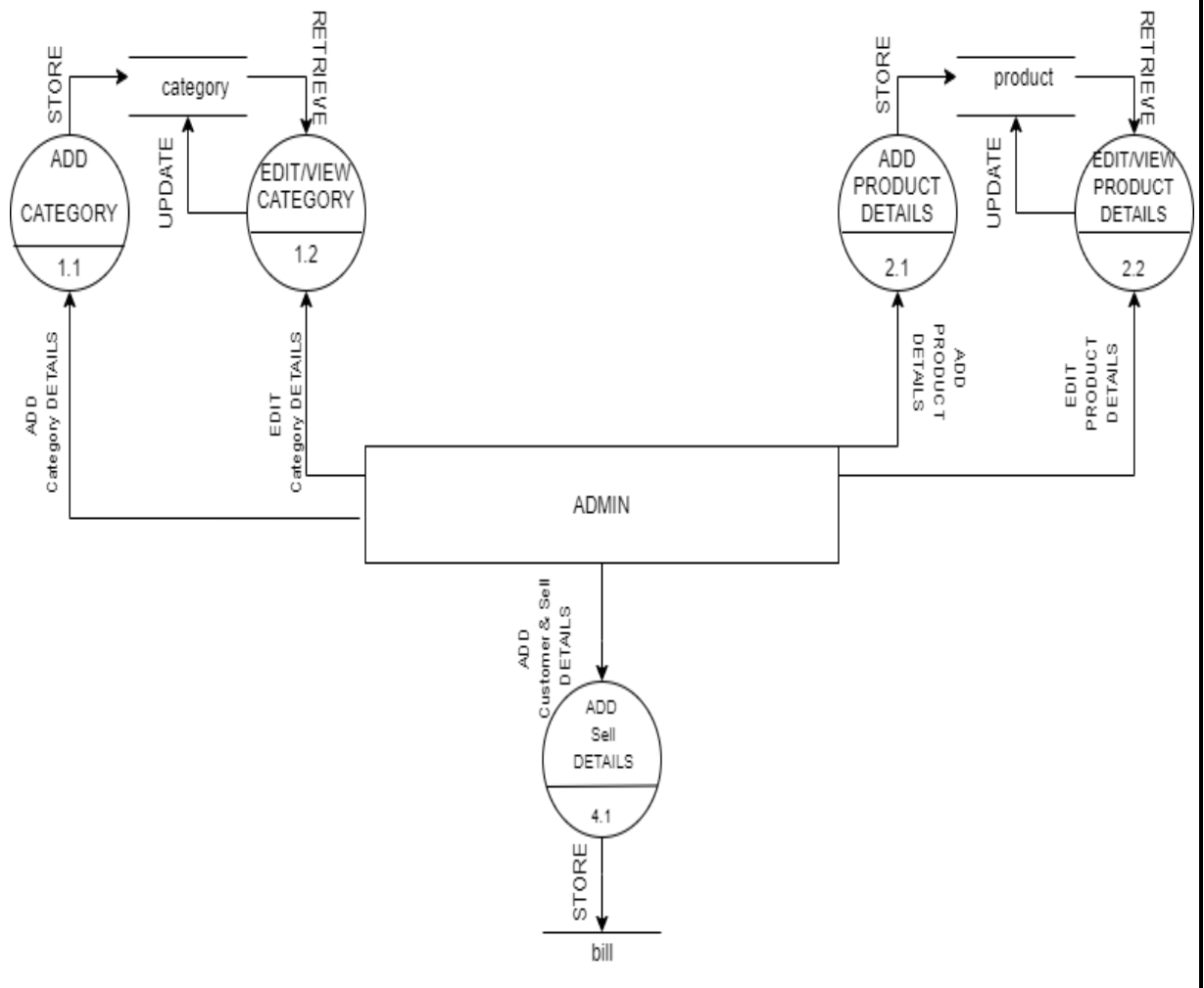
ADMIN:



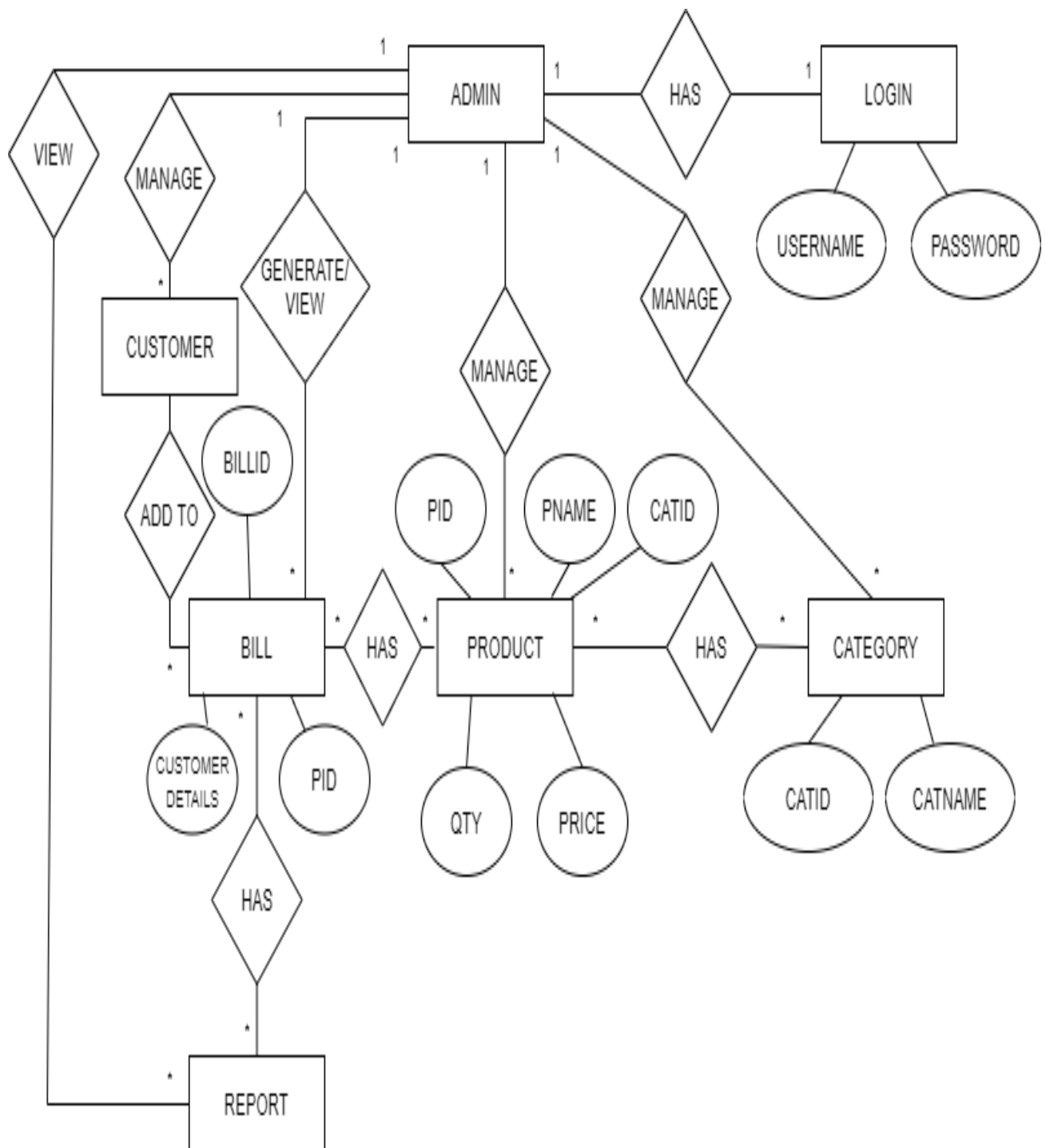
- First Level DFD:**



- Second Level DFD:



3.2 Entity Relationship Diagram (ERD):



3.3 Data Dictionary:

validate:

SR	COLOUMN NAME	DATA TYPE	CONSTRAINT	ALLOW NULL
1	USERNAME	VARCHAR(300)		NOT NULL
2	PASSWORD	VARCHAR(300)		NOT NULL

category:

SR	COLOUMN NAME	DATA TYPE	CONSTRAINT	ALLOW NULL
1	id	VARCHAR(300)	PK	NOT NULL
2	name	VARCHAR(300)		NOT NULL

product:

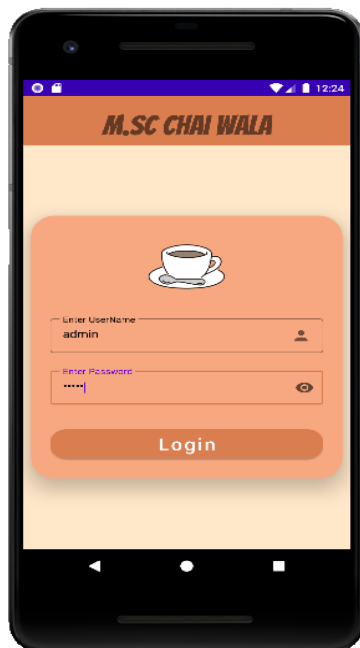
SR	COLOUMN NAME	DATA TYPE	CONSTRAINT	ALLOW NULL
1	pid	VARCHAR(300)	PK	NOT NULL
2	pname	VARCHAR(300)		NOT NULL
3	catid	VARCHAR(300)	FK	NOT NULL
4	pprice	INT		NOT NULL
5	productqty	INT		NOT NULL

finalBill:

SR	COLOUMN NAME	DATA TYPE	CONSTRAINT	ALLOW NULL
1	billId	VARCHAR(300)	PK	NOT NULL
2	custname	VARCHAR(300)		NOT NULL
3	mobileNo	VARCHAR(300)		NOT NULL
4	catId	VARCHAR(300)	FK	NOT NULL
5	pId	VARCHAR(300)	FK	NOT NULL
6	qty	INT		NOT NULL
7	price	INT		NOT NULL
8	netAmt	INT		NOT NULL

3.4 Output Screen:

- Admin Login Page:



- Admin Home Page:



- Admin Add Category:



- Admin View Category:



- Admin Edit Category:

M.SC CHAI WALA

View Category

Enter Category
drinks

*Required 6/30

Update

- Admin Add Product:

M.SC CHAI WALA

View Product

Enter Product
BLACK

*Required 5/30

tea

Enter Product QTY
1

*Required

Enter Product Price
\$ 20

*Required

Save

- Admin View Product:

M.SC CHAI WALA

Add Product

Product name	Category name	Price	QTY	Action
black	tea	1	20	Edit
latte	coffee	1	50	Edit
mint	drinks	1	20	Edit

- Admin Edit Product:

M.SC CHAI WALA

View Product

Enter Product
DARJEELING black TEA

*Required 20/30

tea

Enter Product QTY
1

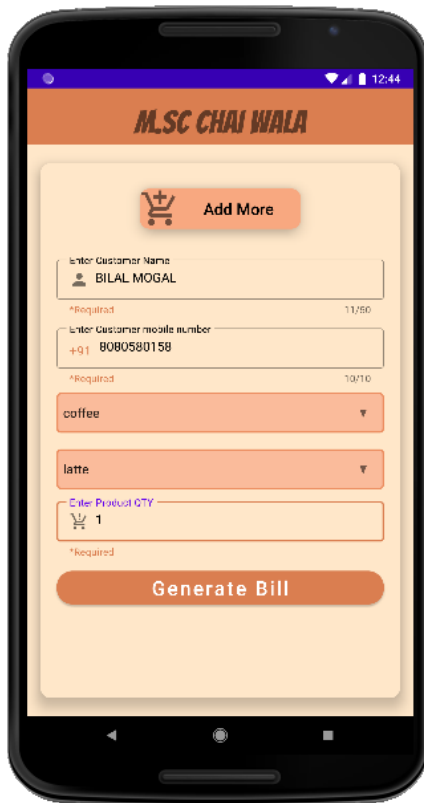
*Required

Enter Product Price
\$ 1010

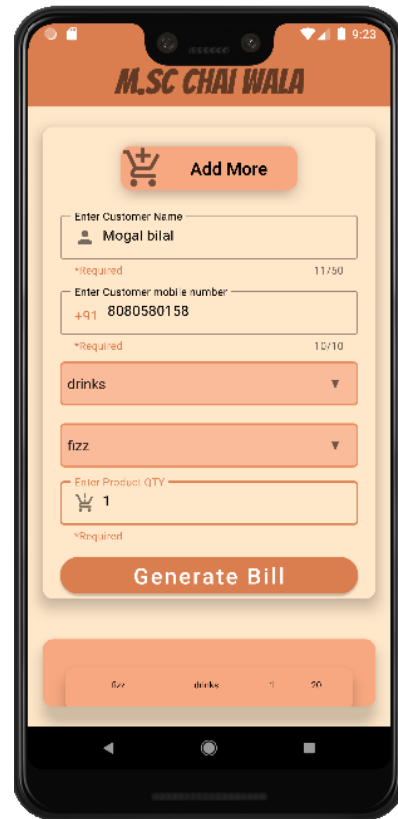
*Required

Update

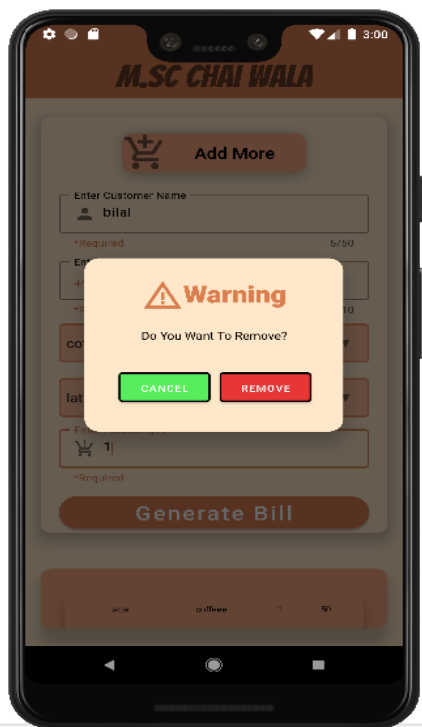
- Admin Sell Page:



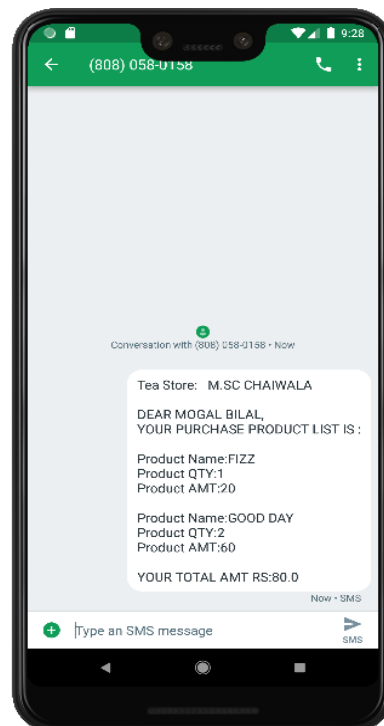
- Admin Product List



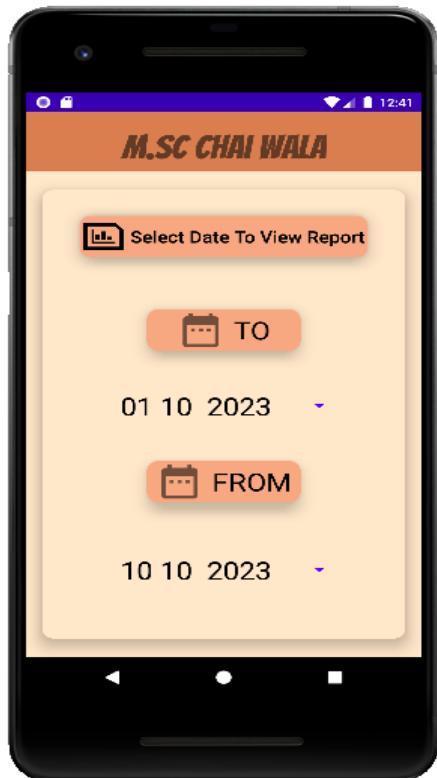
- Admin remove unwanted product from list which customer not want



- Admin Send SMS :



- Admin Report View Page:



Admin Logout Message Page:



4 Implementation:

4.1 Code Script:

```
import java.util.ArrayList;

import java.util.List;

public class SellActivity extends AppCompatActivity {

    Spinner edCat, edProduct; String catid = "";

    String prodid = "";

    List<String> data = new ArrayList<>();

    List<String> Prod = new ArrayList<>();

    ArrayList<CategoryModel> categoryList = new ArrayList<>();

    ArrayList<ProductModel> Pro = new ArrayList<>();

    ListView lst;

    @Override

    protected void onCreate(Bundle savedInstanceState) {super.onCreate(savedInstanceState);

    setContentView(R.layout.activity_sell);

    getSupportActionBar().hide();

    @Override

    protected void onStart() {

    super.onStart();

    FirebaseDatabase.getInstance().getReference("category").addValueEventListener(new

    ValueEventListener() {

    @Override

    public void onDataChange(DataSnapshot snapshot) { data.clear();

    categoryList.clear();

    for (DataSnapshot postSnapshot : snapshot.getChildren()) {
```

```
CategoryModel p = postSnapshot.getValue(CategoryModel.class); data.add(p.getName());  
categoryList.add(p);}   
  
ArrayAdapter<String> adp=new ArrayAdapter<String>(SellActivity.this,  
android.R.layout.simple_spinner_item, data);  
  
adp.setDropDownViewResource(android.R.layout.simple_dropdown_item_1line);  
  
edCat.setAdapter(adp);}   
  
@Override   
  
public void onCancelled(DatabaseError error) {});  }
```

5. Tools and Technologies:

Android Studio:

Android Studio is the official^[6] [integrated development environment](#) (IDE) for [Google's Android operating system](#), built on [JetBrains' IntelliJ IDEA](#) software and designed specifically for [Android development](#).^[7] It is available for download on [Windows](#), [macOS](#) and [Linux](#) based operating systems.^[8] It is a replacement for the [Eclipse Android Development Tools](#) (E-ADT) as the primary IDE for native Android application development.

Android:

Android is a [mobile operating system](#) based on a modified version of the [Linux kernel](#) and other [open-source](#) software, designed primarily for [touchscreen](#) mobile devices such as [smartphones](#) and [tablets](#). Android is developed by a consortium of developers known as the [Open Handset Alliance](#), though its most widely used version is primarily developed by [Google](#). It was unveiled in November 2007, with the first commercial Android device, the [HTC Dream](#), being launched in September 2008.

Firebase Database:

Firebase evolved from Envolv, a prior startup founded by James Tamplin and Andrew Lee in 2011. Envolv provided developers an API that enables the integration of online chat functionality into their websites. After releasing the chat service, Tamplin and Lee found that it was being used to pass application data that were not chat messages. Developers were using Envolv to sync application data such as game state in real time across their users. Tamplin and Lee decided to separate the chat system and the real-time architecture that powered it.^[2] They founded Firebase as a separate company in 2011 and it launched to the public in April 2012.^[3]

Firebase's first product was the Firebase Realtime Database.

6. Future Scope:

- ❖ Forgot password will be implemented.
- ❖ Multiple Admin will be Added.
- ❖ Sell Report of specific user will be implemented.
- ❖ Searching of product will be implemented.

7. Bibliography:

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- <https://www.geeksforgeeks.org/cardview-in-android-with-example/>
- <https://developer.android.com/>