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**PROJECT REPORT ON  
VENDOR-HELPER**

**Submitted To  
University of Mumbai**

**By**

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TYBSC Computer Science**

## **Preface**

I am glad to present this project as this project was developed with an aim to achieve better management of customer information for increasing efficiency of business

This application provide help in effective management of customer information with additional features of security and increase & Decrease date inconsistency.

The following documentation Provides an insight of the existing "Customer management system" with a scope for further expansion in future.

This report depicts the information use for the system development. For detail information scope of the project along with table design and Screen Layouts are provided.

Although this report is prepared with utmost care, there may be errors for the project and is subjected to further enhancements.

**By Vishwanath Lokare**

## **ACKNOWLEDGEMENT**

**I take this opportunity to thank all those who have been directly or indirectly related to my project.**

**I would like to thank to our project guide ---- for her constant source of inspiration. I am grateful to our coordinator Mrs. Pallavi Mirajkar for her encouragement and suggestions on my project.**

**I sincerely thank to our entire professor from (Computer Department) of our COLLEGE for their continued support.**

**I look forward in comments which are welcomed by me from students and teachers.**

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## **PRELIMINARY INVESTIGATION**

## **Organization overview & Introduction**

This Application “VendorHelper” has been developed by Mr. Vishwanath Lokare as an academic project for the Computer Science Department of M.D College of Science & Commerce as a part of the T.Y. BSc Computer Science Course.

This system was created with a lot of anticipation towards mastering the basics of Application development. It was designed in such a way so as to help us make use of basic technologies like ANDROID STUDIO and SQLite.

It has used the concepts of maintaining a uniform system structure and during the process of creating this Application an honest effort has been made towards creating a professional system in the future.

## **Description of the System:**

- This Application will lessen the work of carrying the notebook while going to collection (getting payment of monthly work done by vendor) and will be helpful to search past records of customers.
- While using notebook you might forget the last renewal date of any customer which implies bad customer service. This application reminds you of every customer last renewal date which is coming closer, so vendor will not forget to renewal customer's card
- VENDORHELPER is designed in such way that vendor could easily manage information of a lot customers at once.
- This app can make vendor act fast and more helpful towards customers. Which will lead to a good customer service and eventually increasing his business
- This app is easy to work with that makes it favorite among small businesses like newspaper and milk vendor
- Biggest advantage of this Application is vendor can easily check database and could easily able to find out other way to minimize loss and gain more profit

## **Limitations of the Present System:**

- In present System vendor has to carry a notebook where he writes down all the information of his customer. Which was difficult to handle
- Notebook has limitation of getting destroyed or lost which will eventually lead to loss of information where while using app you will be able to save data on google drive or simply just in your mobile storage
- As all the records were stored manually and written, it was difficult to store data more structured way
- Which Eventually leads to consumption of more time while accessing it.
- Storage of information is costly.
- Modification of one record causes to other records related to that record, so work becomes very critical, so some time data loss will be ocular.

## **PROPOSED SYSTEM :**

This Application is meant to help vendor by computerizing all his work and using database for better management of its customer

It gives the vendor the functionality of searching through all customer without manually checking it as program will do all the work for reminding and keep updating the records

It also keep track of Renewal dates of package and gives extra feature of storing complaints of customer

It uses Google drive Api to give Provide user with Data security and integrity

## **OBJECTIVES :**

- ✓ Customer Data management.
- ✓ Retrieval of data whenever you want.
- ✓ Data modification and adding payment transaction.
- ✓ Save time thereby increasing performance.
- ✓ Reducing work process time.
- ✓ Provide various complaint facility.
- ✓ Cost effective and less manpower required.

## **Advantages of The Proposed System :**

- This system uses SQLite as data base which is strong and secure database for proposed system.
- The proposed system empowers the user with a new computer based system by reducing the efforts of data maintenance.
- The proposed developed according to the user specification hence it is a user-centered system.
- Vendor can check anytime which customers are remaining who have not paid their monthly bill
- It keeps track on monthly renewal of package of every customer
- Google Integration helps more than 1 user to work on same data

## **Hardware and Software requirements :**

### ➤ Hardware -

Applications overall size is less than 12 mb

Compatible on any processor having OS over android Ice cream Sandwich

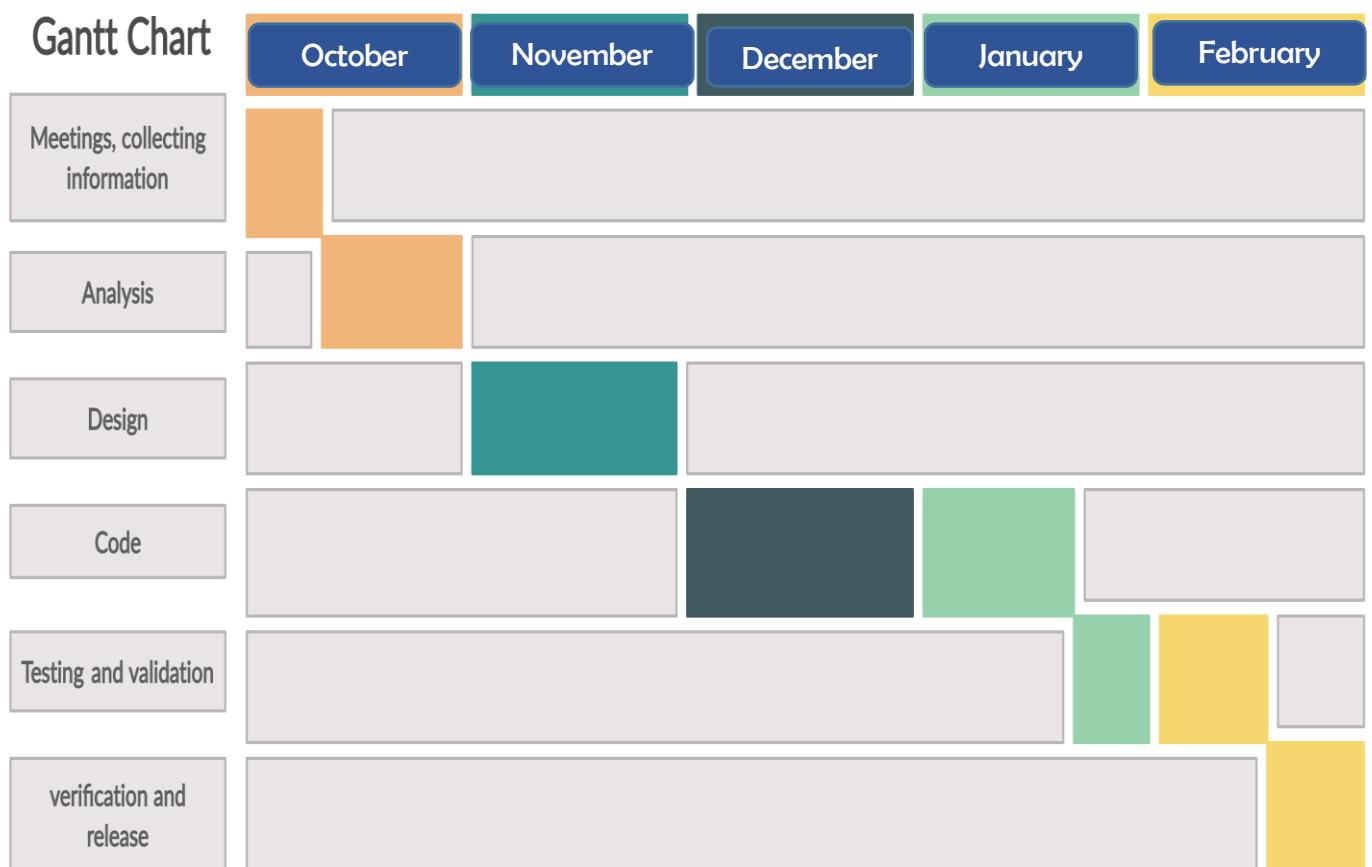
### ➤ Software -

Any OS over android 4  
SQLite database

### ➤ Software Required for development -

Android studio 4.1

## Gantt Chart



## **SYSTEM ANALYSIS**

## **FACT FINDING TECHNIQUES :**

The following are the fact-finding techniques, which were followed:

### **Going through all the existing documentation, files, registers:**

I went through all the files and registers in which the supplier's details were kept. I also referred the handmade bills and receipts. From this I traced out the history, which was required for the existing system to be implemented.

### **Research and site visit:**

I visited the shop several times, which was very important for gathering the details about the items stored in the shop and the how the bill is generated.

### **Observation:**

By visiting the shop I observed how the manual process is been taking place. Through observation I was able to see what exactly is to be done.

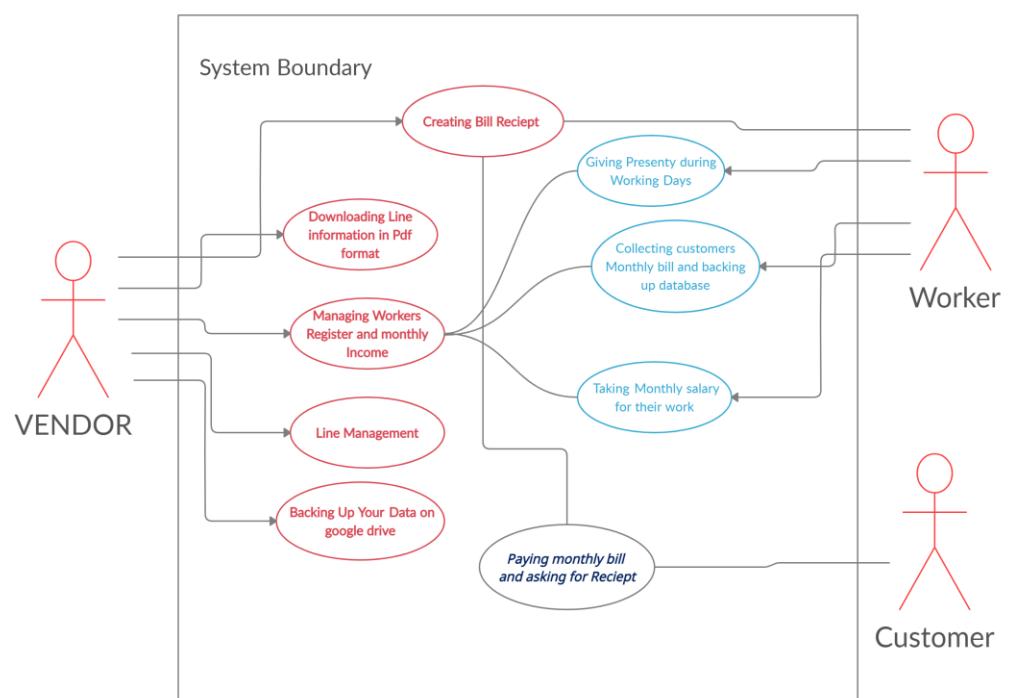
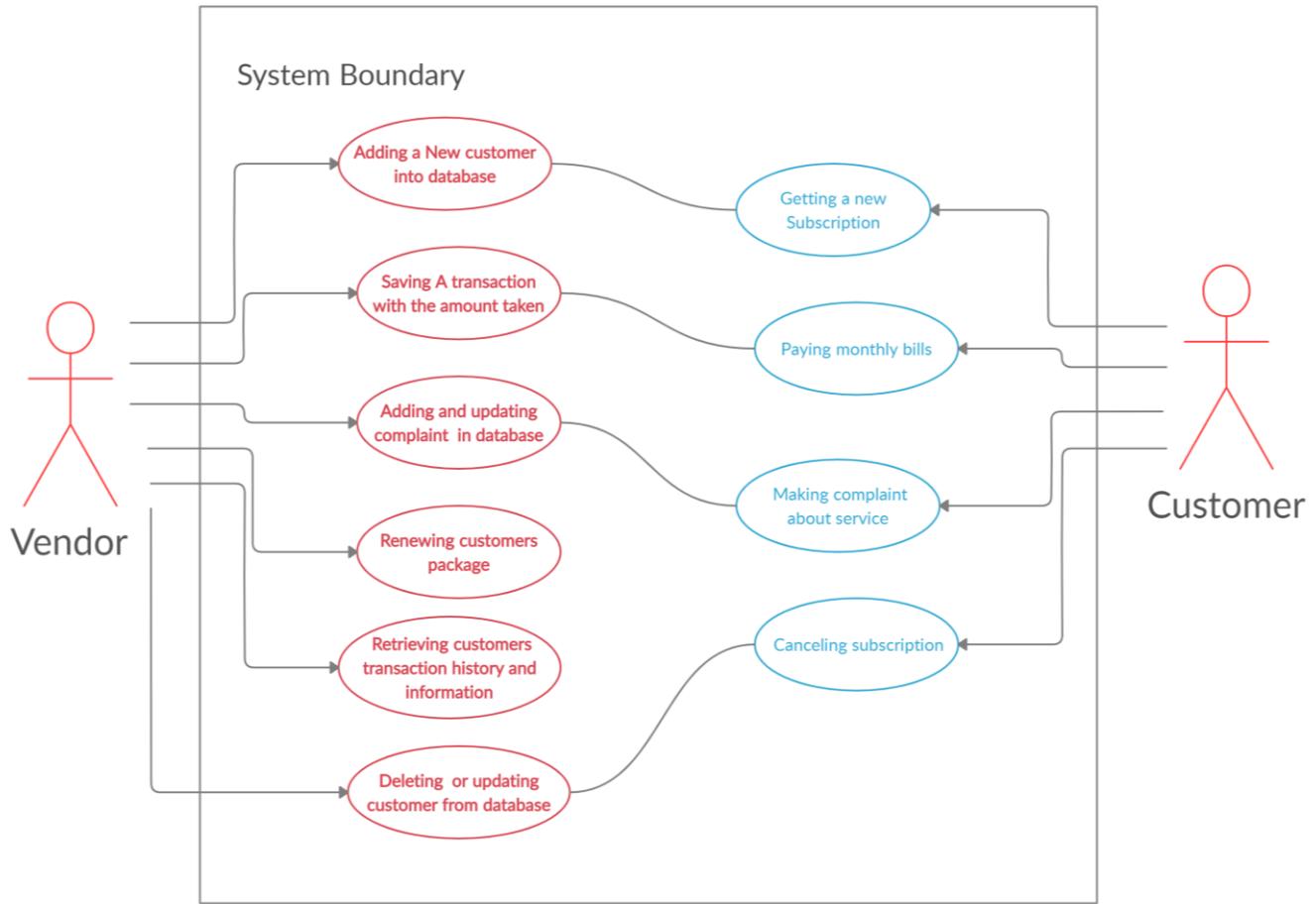
### **Questionnaires:**

Questionnaires are the special purpose documents that allowed me to collect information and opinions from respondents. Through questionnaires it was possible to know the requirements of the respondent.

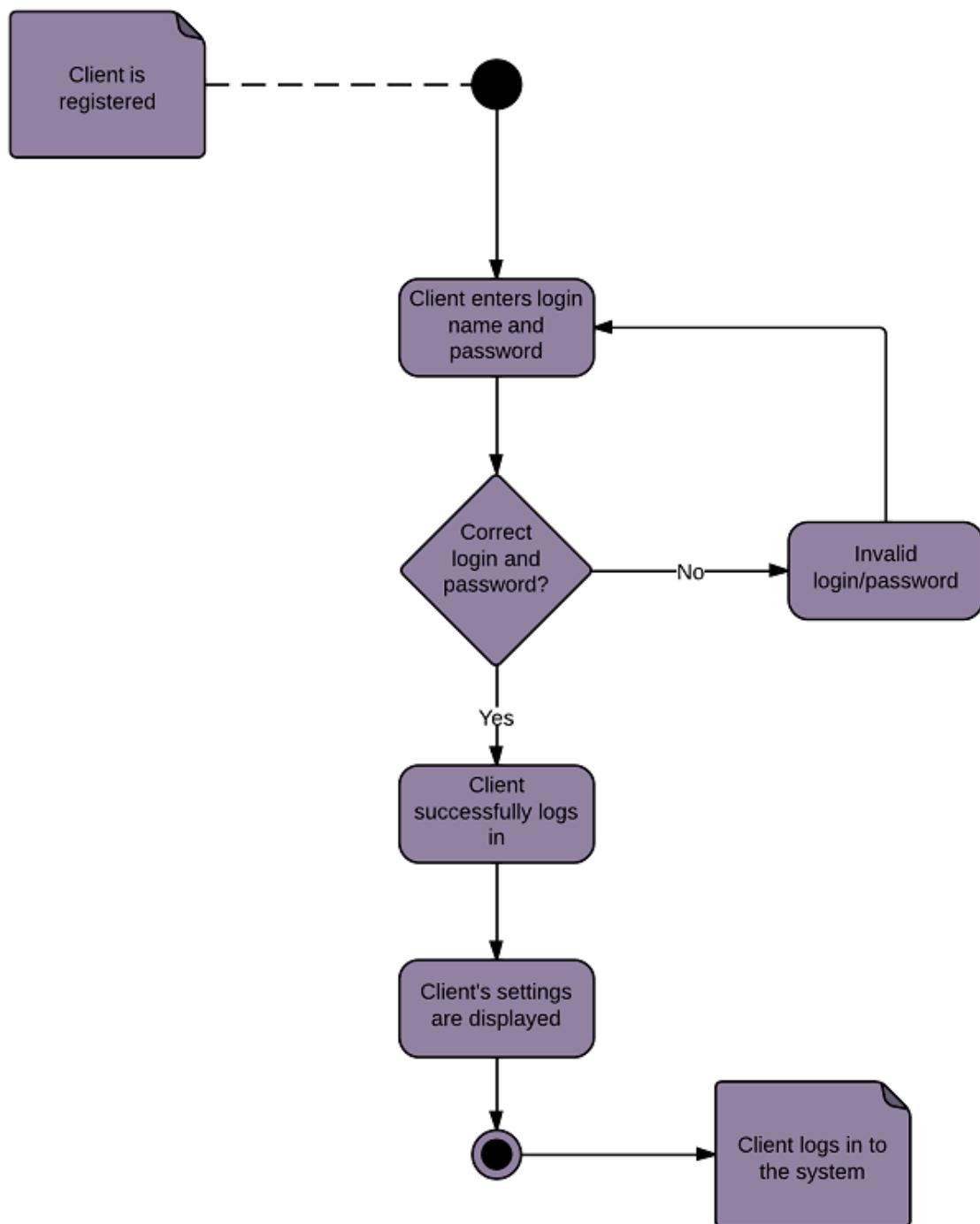
### **Interviews:**

Through interviews it was possible for me to collect information from the respondent face-to-face

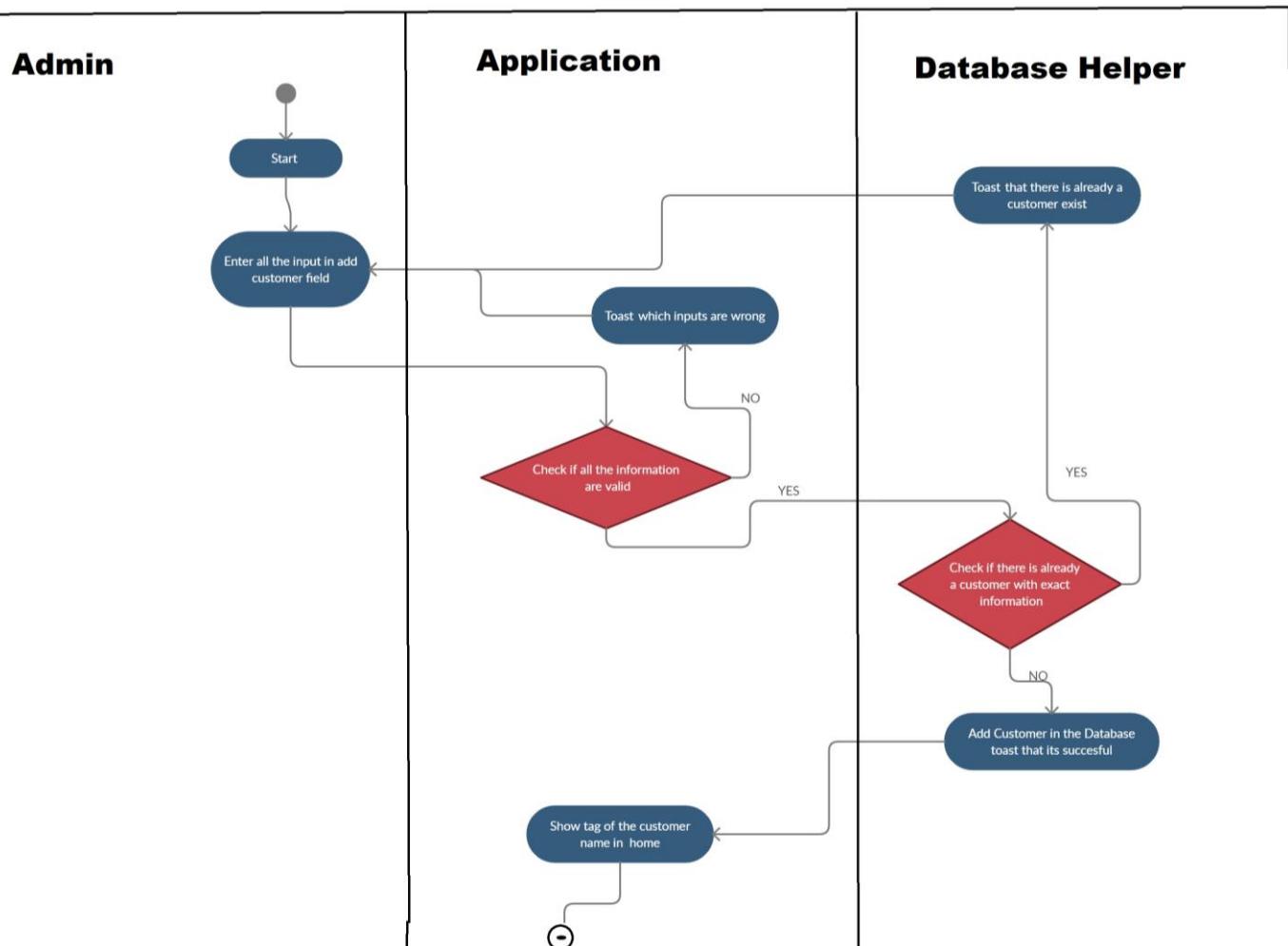
# Use Case Diagrams



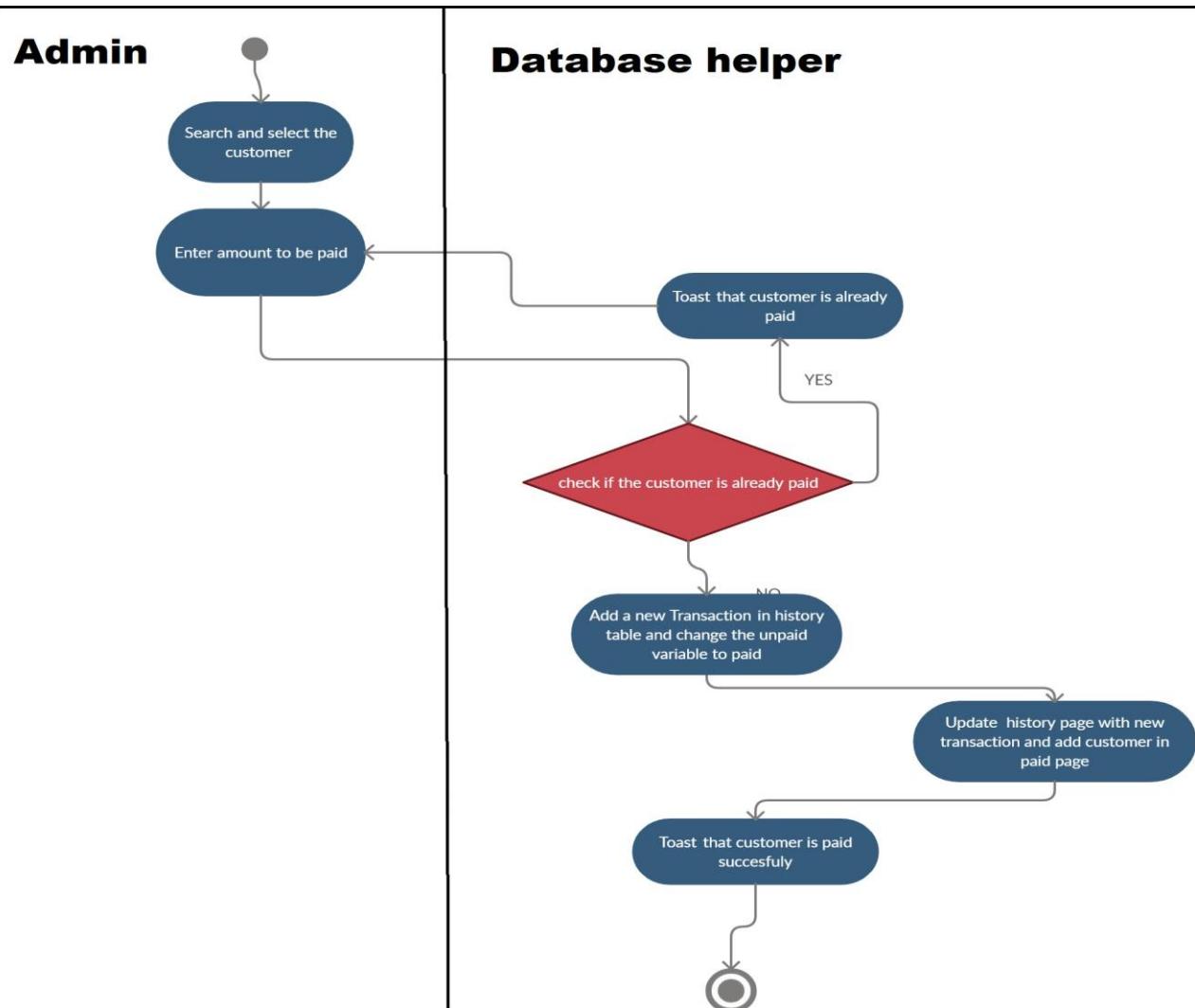
# Activity Diagram for Google login

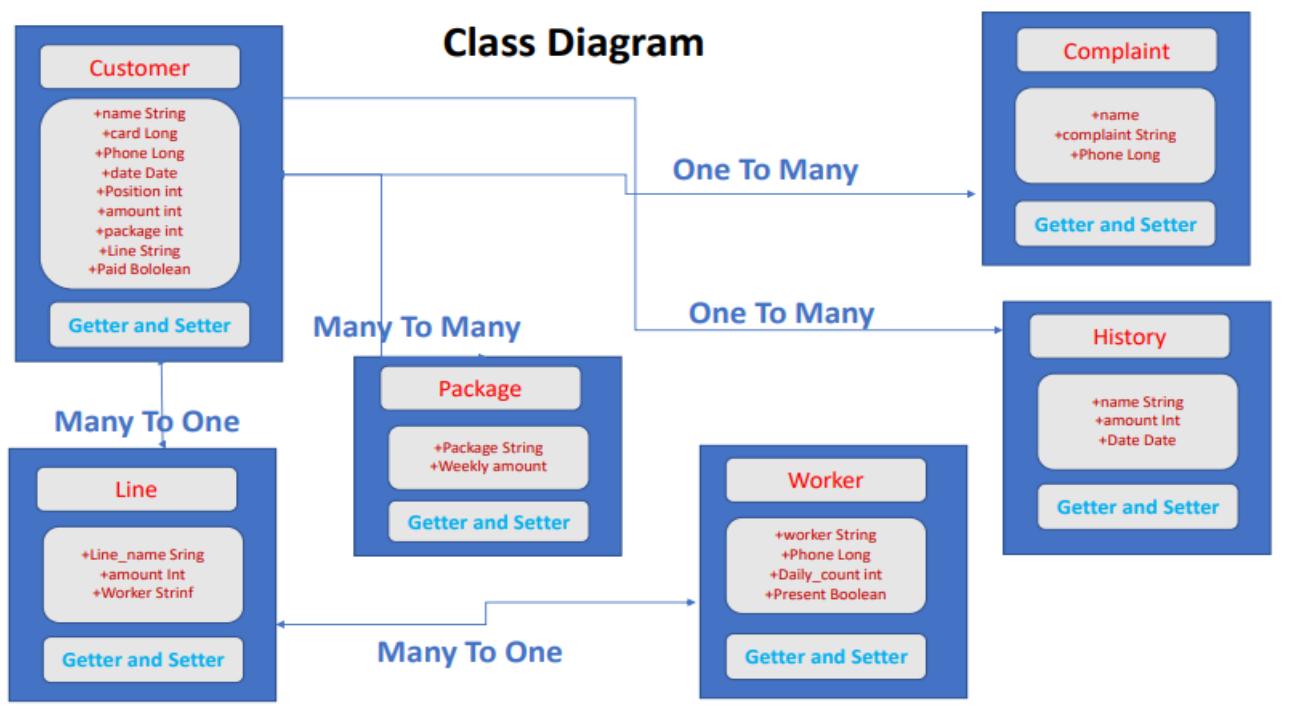


# Activity Diagram for Adding a new Customer

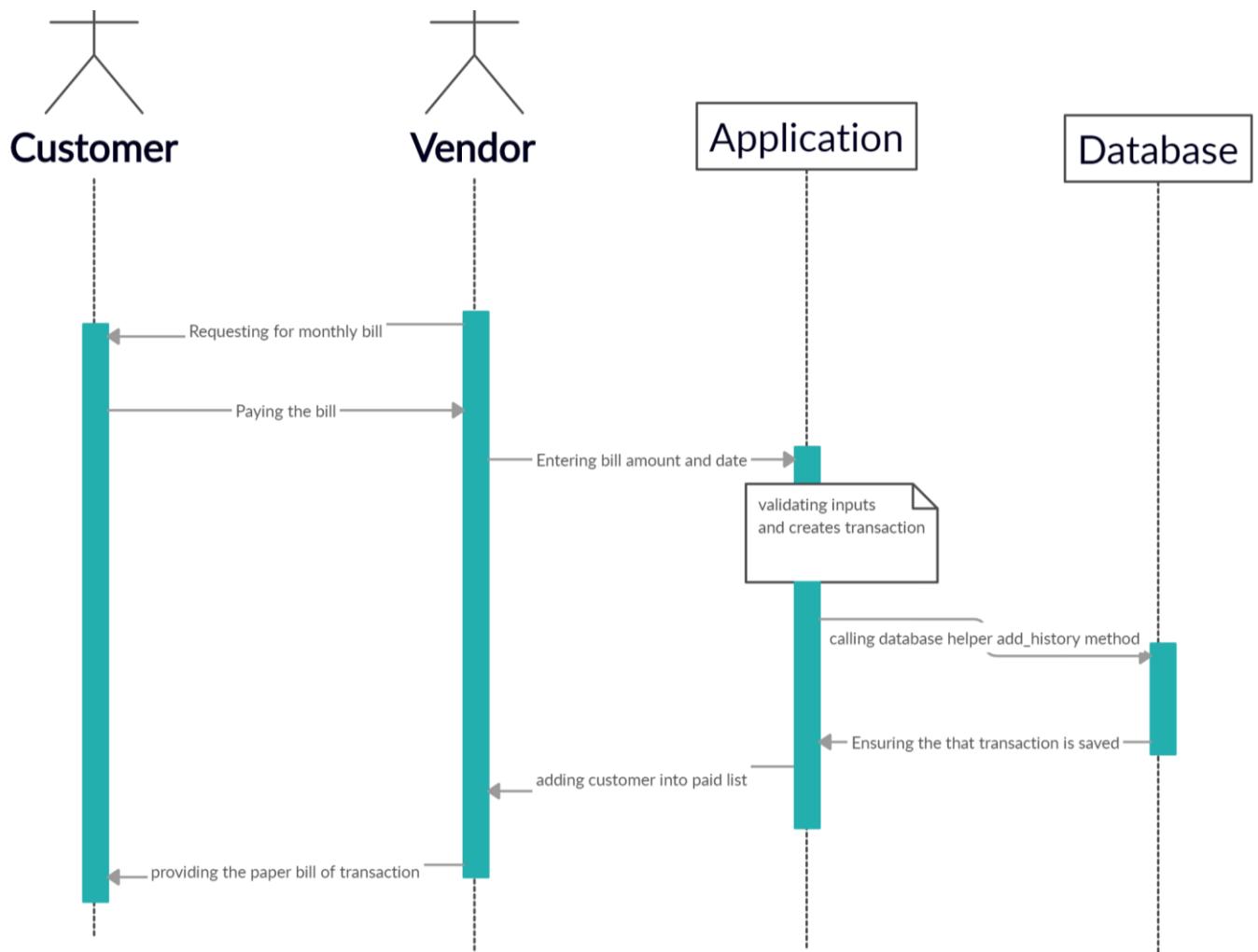


# Activity Diagram for payment Transaction

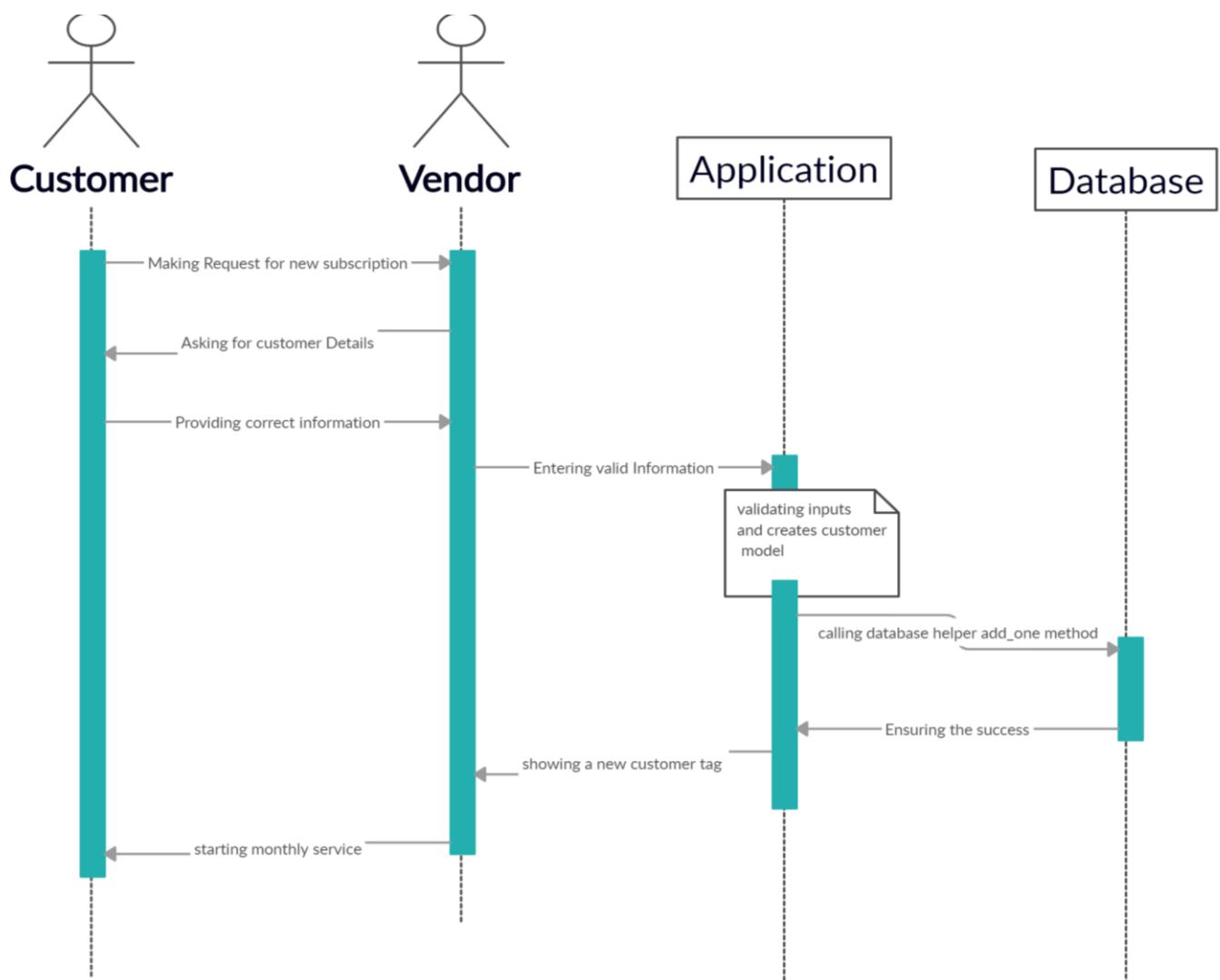




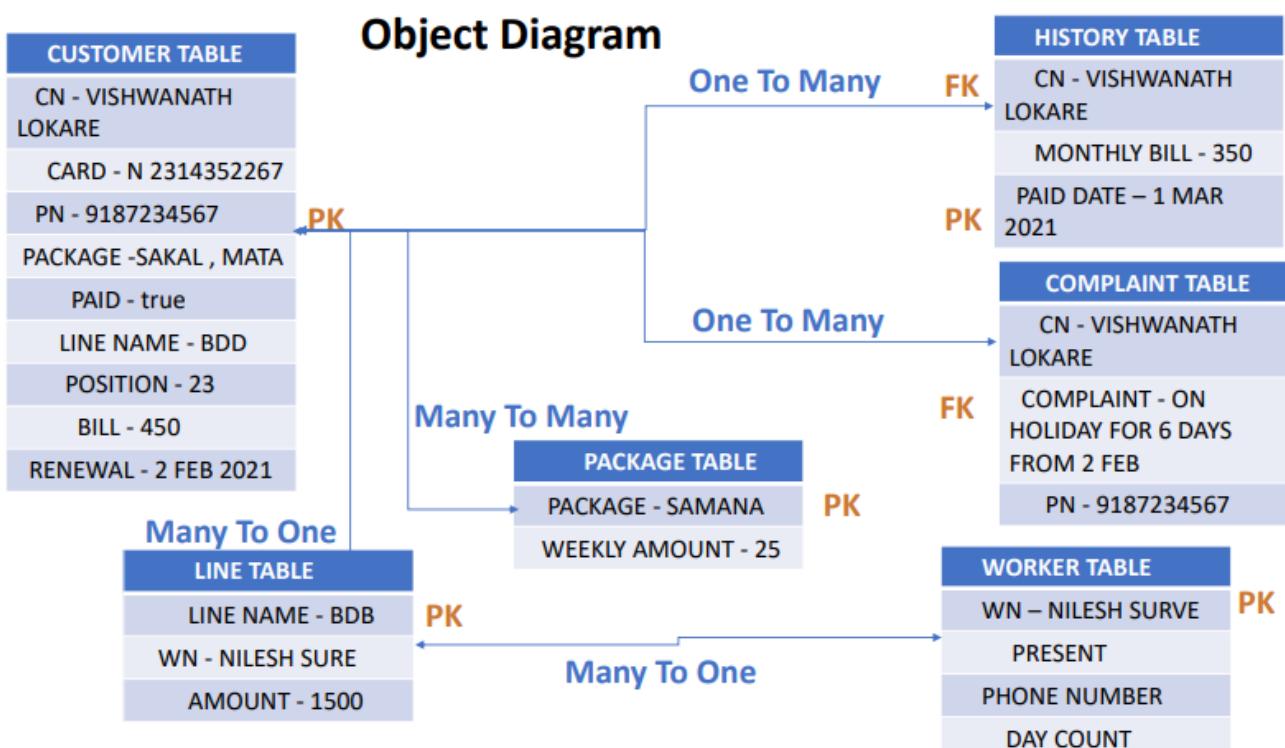
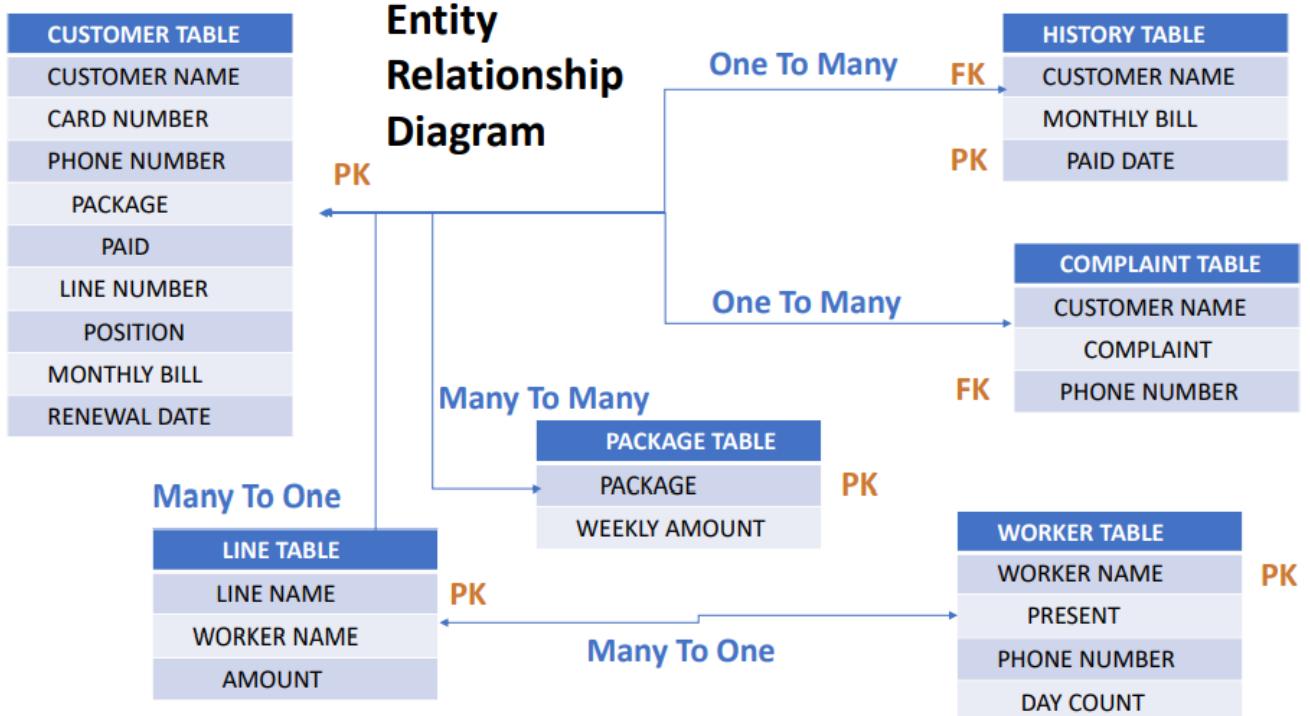
# Sequence Diagram for saving Transaction



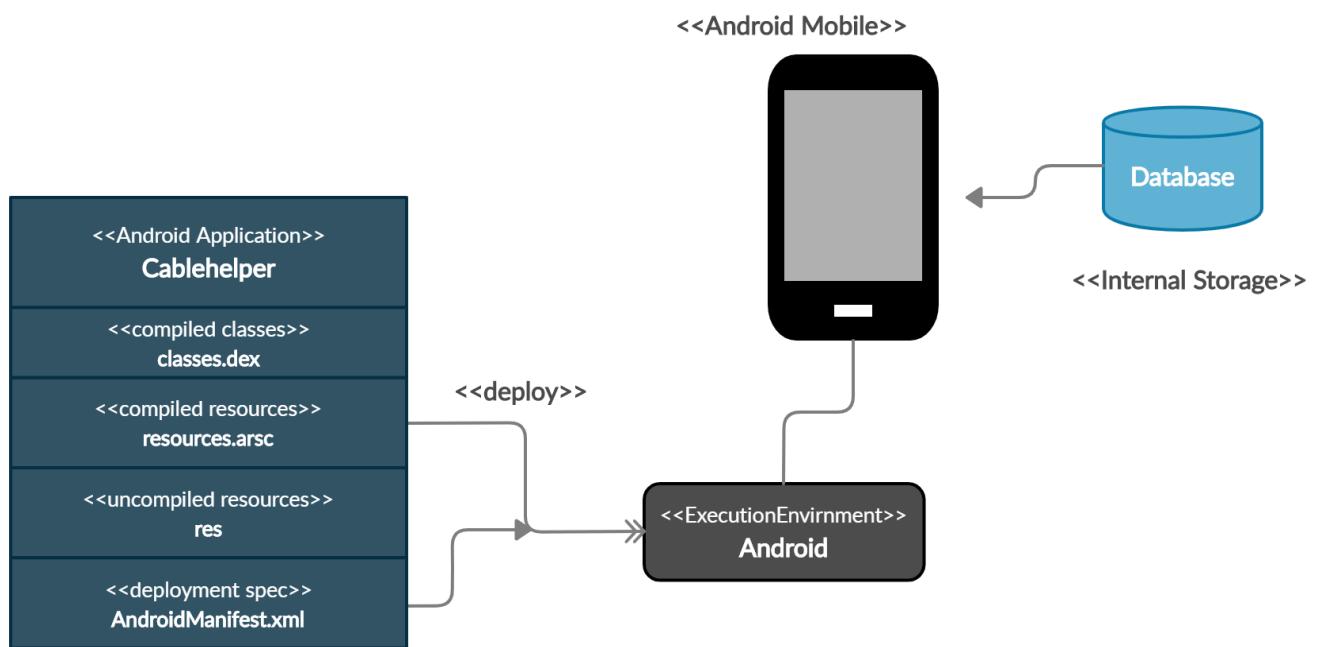
# Sequence Diagram for saving Transaction



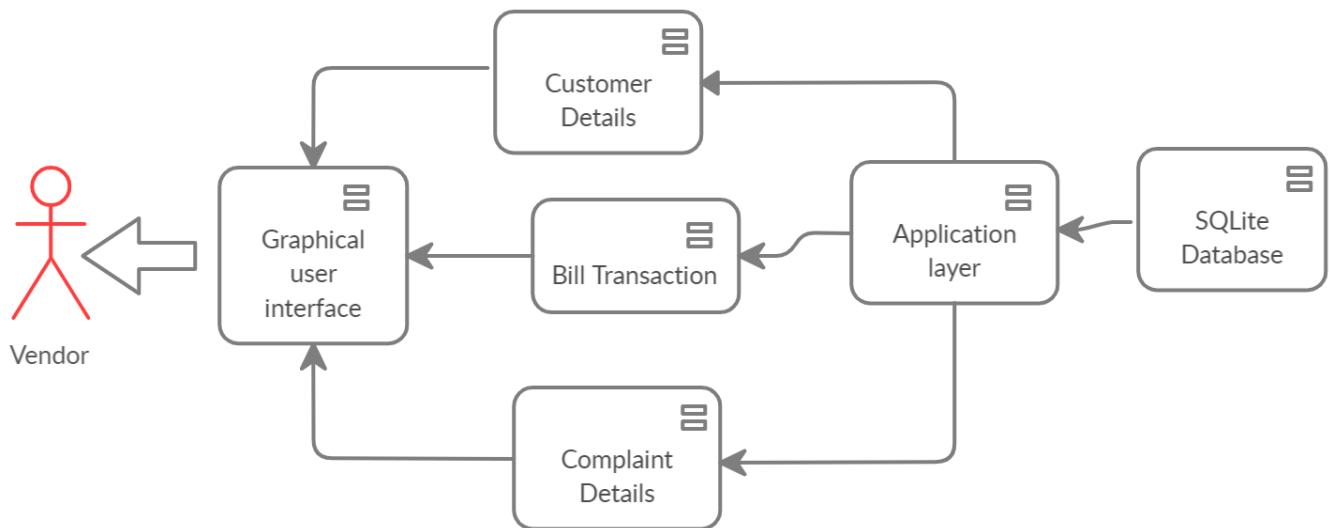
## ***SYSTEM DESIGNS***



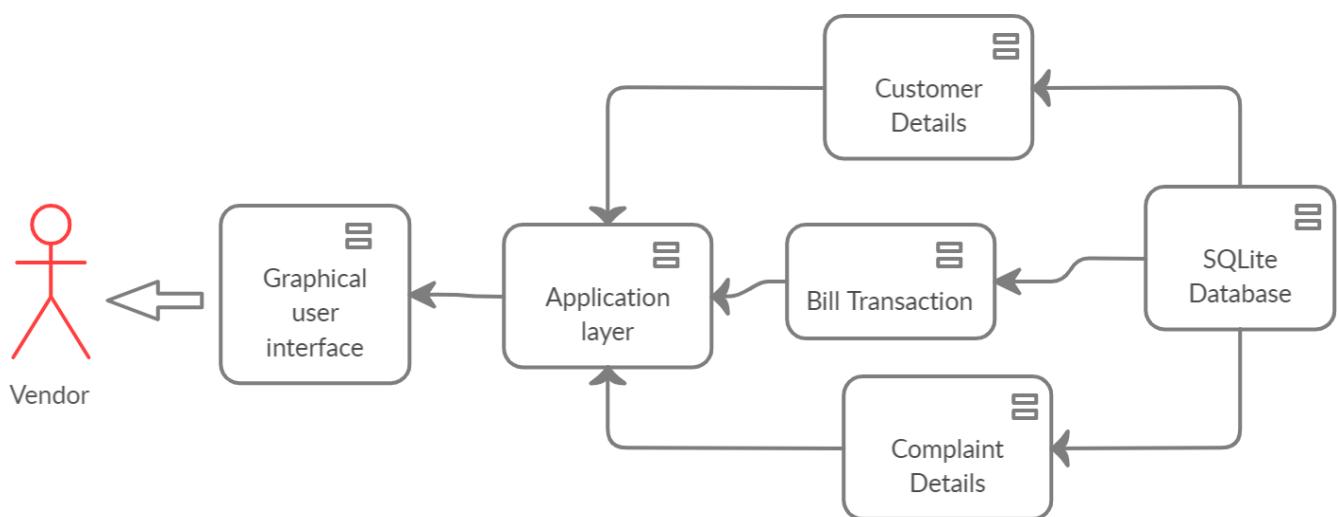
# Deployment Diagram



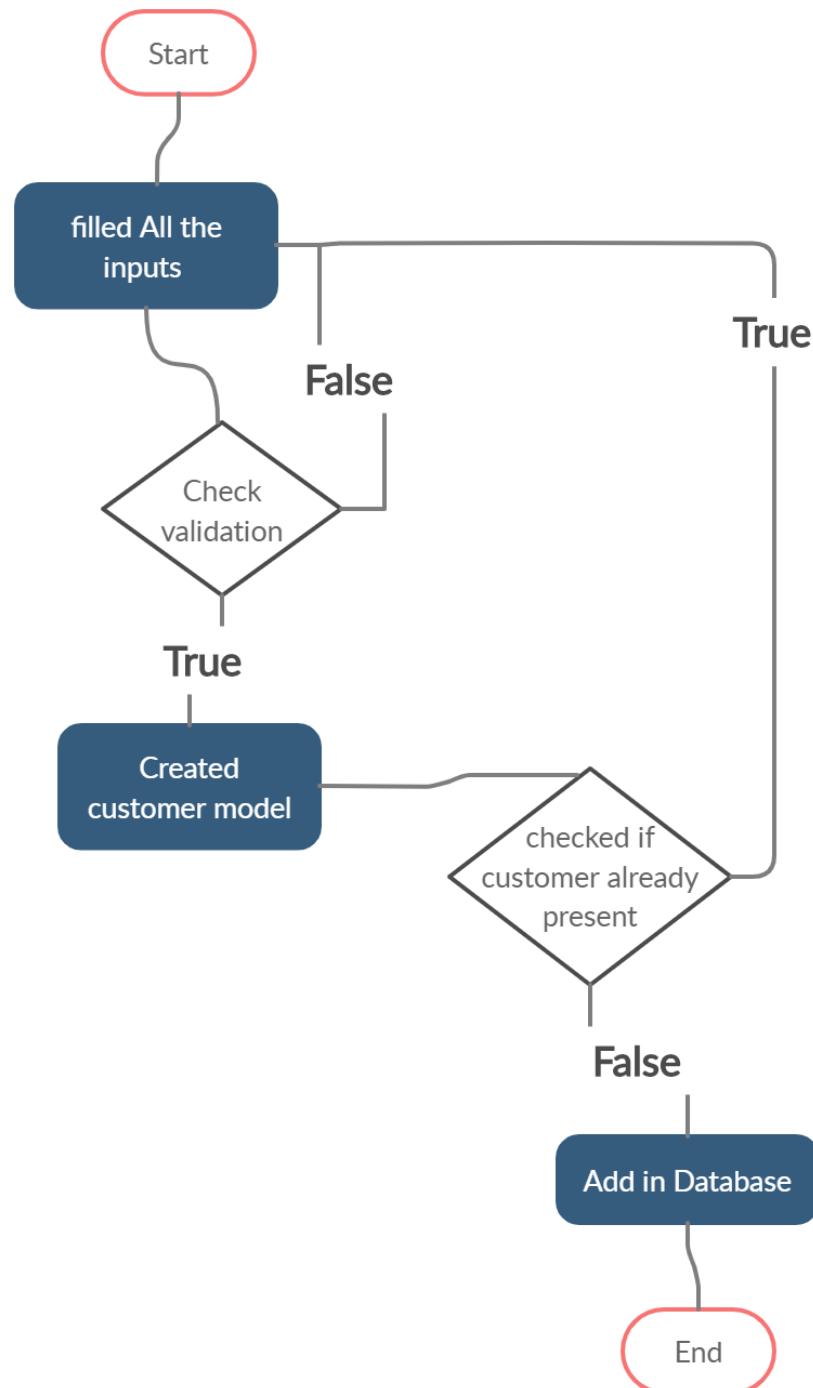
# Component Diagram for saving the information



# Component Diagram for extracting the information



# State Diagram For Adding a new customer



## ***SYSTEM CODING***

# Database Tables:

**Customer table -**

Key Type	Column Name	Column Type	Description
Primary key	Column_name	Text	Customer name
	Column_card	Long	Card number of set-top box
	Column_phone	Long	Phone number
	Column_amo	Integer	Package amount
	Column_pack	Text	Package name , information
	Column_renew	Long	Date of Renewal
	Column_paid	Boolean	If paid or not
Foreign Key	Line_Name	Text	Line name
	Position	Int	Position of customer in specific line

**Complaint table -**

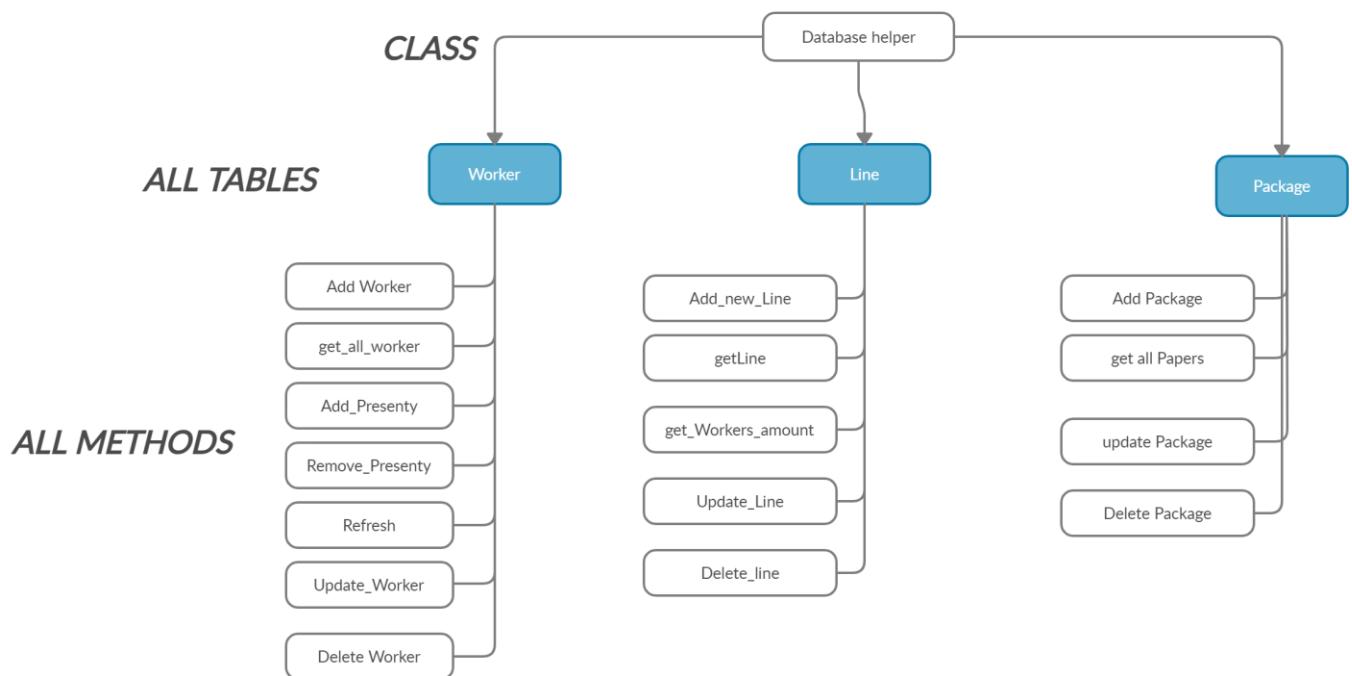
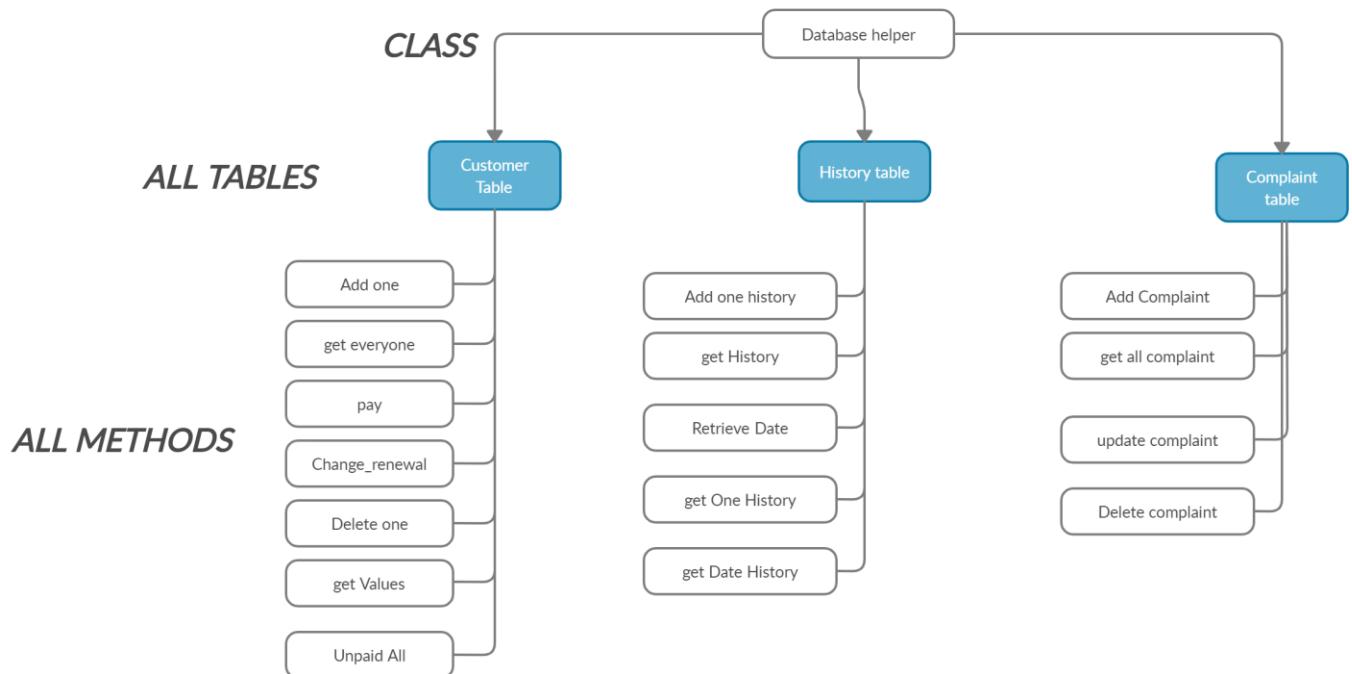
Key Type	Column Name	Column Type	Description
Primary key	Complaint	Text	Complaint about service
Foreign key	Customer name	Text	Name of customer
Foreign Key	Phone	Long	Phone number of customer

**History table -**

Key Type	Column Name	Column Type	Description
Foreign key	Renewal date	Long	Renewal date of package
	Amount	Integer	Amount to be taken
	Customer Name	Text	Name of the customer

	<b>Key Type</b>	<b>Column Name</b>	<b>Column Type</b>	<b>Description</b>
<b>Worker table -</b>	Primary key	Worker	Text	Name Of Worker
		Present	boolean	Present or not
		Daily_count	Integer	Day Present
	Foreign Key	Phone	Long	Phone number of customer
<b>History table -</b>	<b>Key Type</b>	<b>Column Name</b>	<b>Column Type</b>	<b>Description</b>
	Primary key	Line	Text	Line Name
		Amount	Integer	Amount to be given to Assigned Worker
	Foreign Key	Worker_assigned	Text	Name of the Worker assigned
<b>Package table -</b>	<b>Key Type</b>	<b>Column Name</b>	<b>Column Type</b>	<b>Description</b>
	Primary key	Package Name	Text	Package Name
		Weekly Amount	Integer	Weekly amount of Package

# Menu Tree For Database helper class



## Validations :

### • Customer Form -

Input	Validation condition	Valid Data	Invalid Data
Customer name	Characters and space only	Vishwanath lokare	Vi6va, 3okare
Card number	Digits and spaceOnly	4536 3425	Nd231,3425)4
Phone number	Only ten digits and In indian form	9137296270	3452672342, 970258910
Package amount	Only digits	500 , 400 , 50045	34f5, 67#5
Package info	Must start with character and digits, #,@,& space	sony@23 , Star#240	#star, 45sony, sony^34
Renew Date	Using calender for dates	Any dates format	Anything which is not Date
Paid	Using Checkbox for input	True,Flase,0,1	Anything which is not boolean

## Validations :

### • Worker Form -

Input	Validation condition	Valid Data	Invalid Data
Line Name	Should not start with number and not any contain special charcter	BDD Chawl 23	34 BDD, BDD+54
Worker Assigned	Should not start with number and not contain any special charcter	Vishwanath lokare	Vi6va, 3okare
Amount	Only digits	453 , 435	Fewe, 23f

## Line Form -

Validations :

Input	Validation condition	Valid Data	Invalid Data
Line Name	Should not start with number and not contain any special character	BDD Chawl 23	34 BDD, BDD+54
Worker Assigned	Should not start with number and not contain any special character	Vishwanath lokare	Vi6va, 3okare
Amount	Only digits	453 , 435	Fewe, 23f

All fields are compulsory\*

# Coding for validations

```
btx_add.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        DummyContent customer_one = null;
        try {
            customer_one = new DummyContent(edt_name.getText().toString(),
                Long.parseLong(edt_card.getText().toString()),
                Long.parseLong(edt_phone.getText().toString()),
                paid.isChecked(),
                Integer.parseInt(edt_ammo.getText().toString()),
                edt_addr.getText().toString(),
                Actual_date
            );
        } catch (Exception e){
            Toast w = Toast.makeText(getApplicationContext(),"Invalid Inputs",Toast.LENGTH_SHORT);
            w.show();
        }
        String regname = "^(?![_0-9])[\\p{L}\\d .'-]+$";
        Pattern pname = Pattern.compile(regname);
        Matcher Mname = pname.matcher(edt_name.getText().toString());
        String regphone = "(0,91)?[7-9][0-9]{9}";
        Pattern Pphone = Pattern.compile(regphone);
        Matcher Mphone = Pphone.matcher(edt_phone.getText().toString());
        String regadd = "^(?![_0-9])[\\p{L}\\d .'-_-]+$";
        Pattern padd = Pattern.compile(regadd);
        Matcher Mpackage = padd.matcher(edt_addr.getText().toString());
        if (!Mname.matches()){
            Toast.makeText(getApplicationContext(),"customer name is invalid could not
add customer",Toast.LENGTH_SHORT).show();
        }
        else if(!Mphone.matches()){
            Toast.makeText(getApplicationContext(),"phone number should of 10 digits in
indian format",Toast.LENGTH_SHORT).show();
        }
        else if (!Mpackage.matches()){
            Toast.makeText(getApplicationContext(),"Package name must start with Character",Toast.LENGTH_SHORT).show();
        }
        else{
            try {
                Database_helper database_helper = new Database_helper(getApplicationContext());
                boolean success = database_helper.add_one(customer_one);
                if (success == true) {
                    Toast.makeText(getApplicationContext(), "customer added succesfully = " + customer_one.getDetails().toString()
+ " " + success,Toast.LENGTH_SHORT).show();
                }
            }
        }
    }
})
```

```
        } else {
            Toast.makeText(getApplicationContext(), "Phone Number has already assigned to another customer",
Toast.LENGTH_SHORT).show();
        }
    } catch (Exception e) {
        Toast.makeText(getApplicationContext(), "Could not add customer", Toast.LENGTH_SHORT).show();
    }
}
});  
return v;
}
```

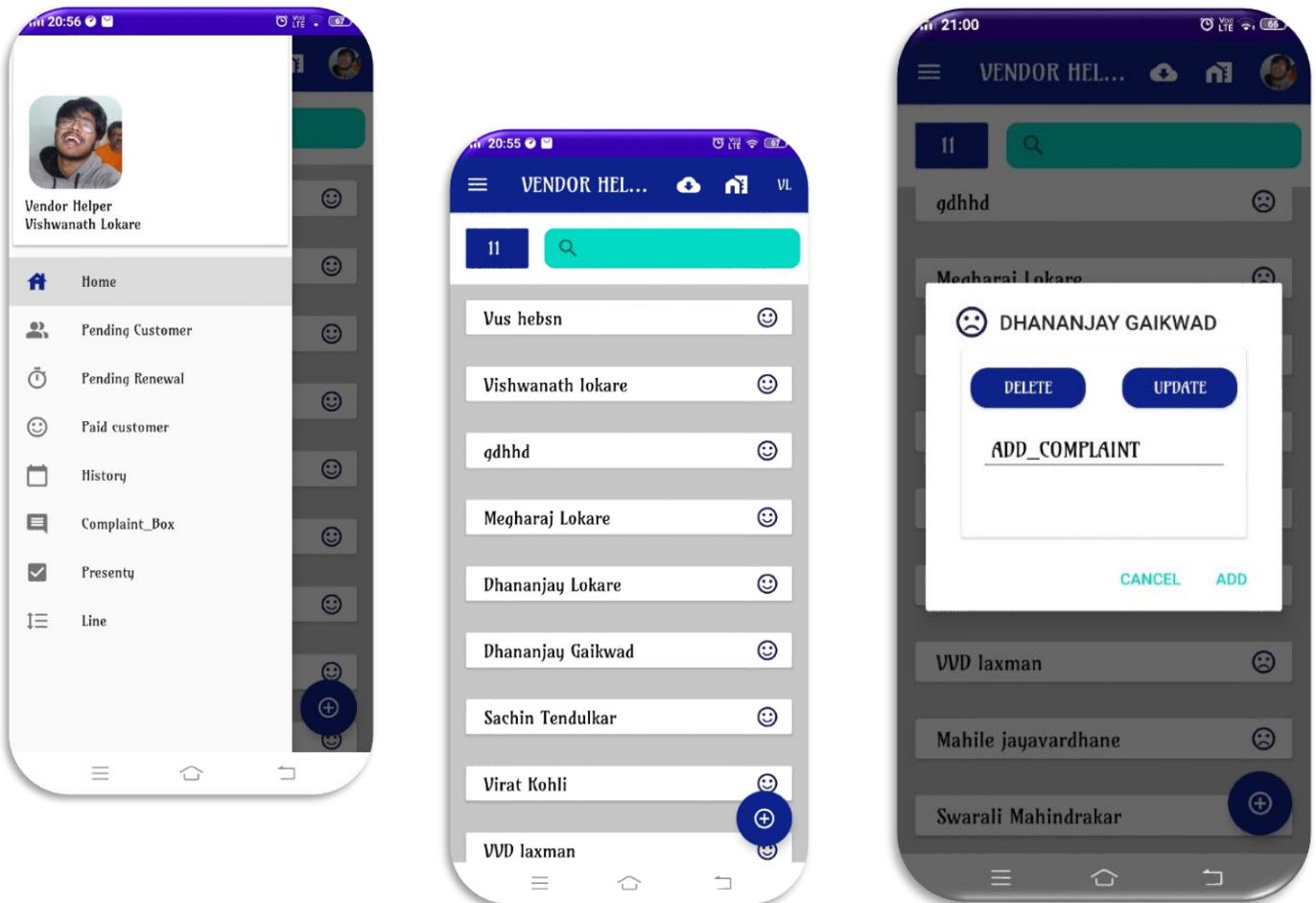
## **TEST CASE**

The forms were tested for their functionality and error messages are displayed wherever the input does not meet the required requirements

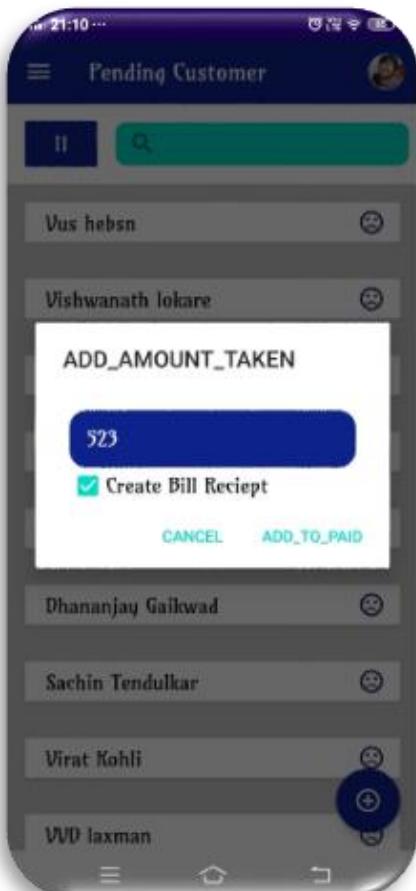
- Adding a new customer form giving error message. If any invalid user want to take entry into the system then this form restrict him from entering into the system. By entering invalid Name or Phone number it gives an error message
- It was Accepting invalid input like 5Zee marathi for package name,after research I got to know that my regression String was faulty
- Phone number field was giving error as I used Int variable for storing it where as Long was more appropriate

## **SCREEN LAYOUTS & REPORT LAYOUTS**

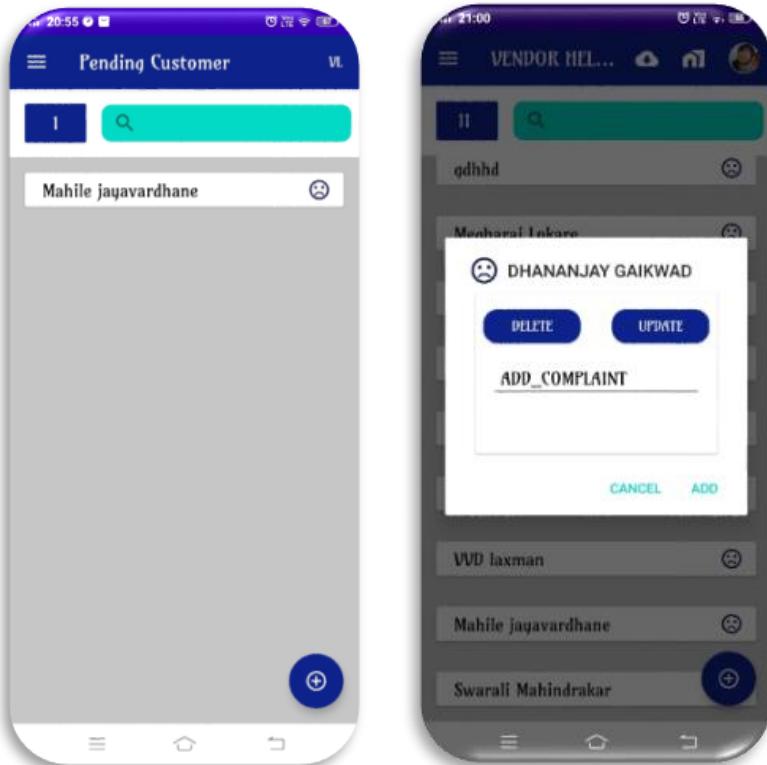
# Screen Layouts for home page :



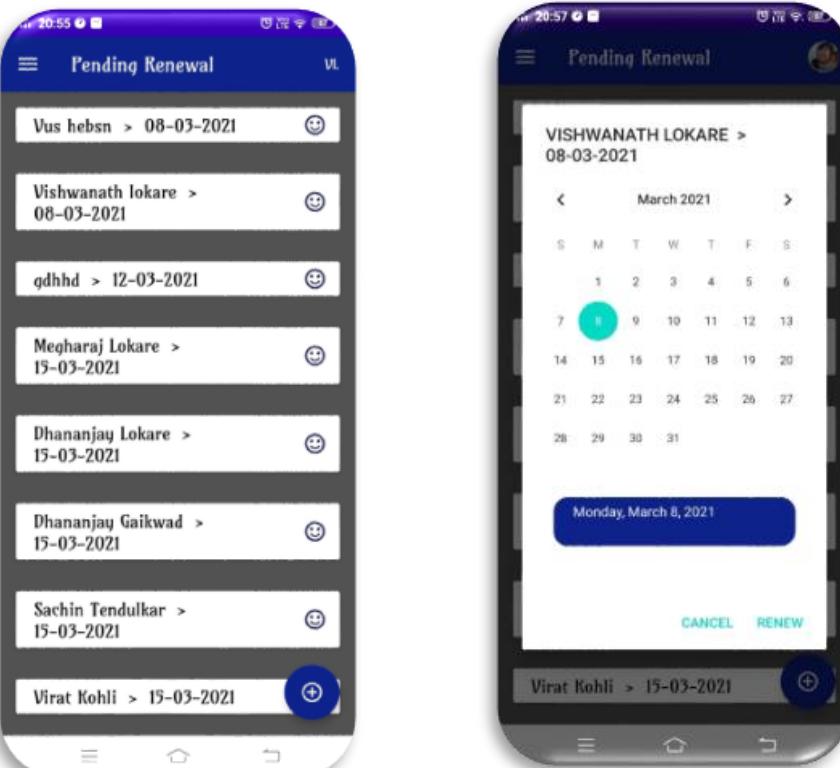
# Screen Layouts for Automatic Creation of Document like Bill Receipt and Line page



## Screen Layouts for Pending customer page



## Screen Layouts for Pending Renewal page



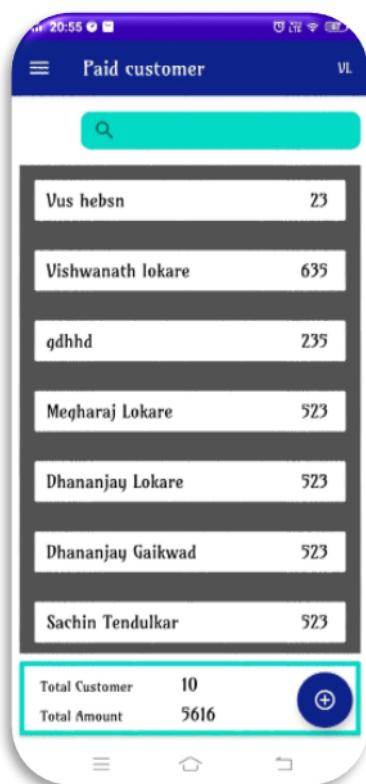
## History page



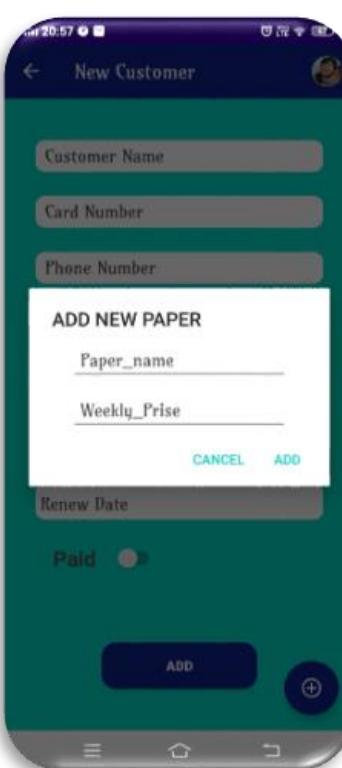
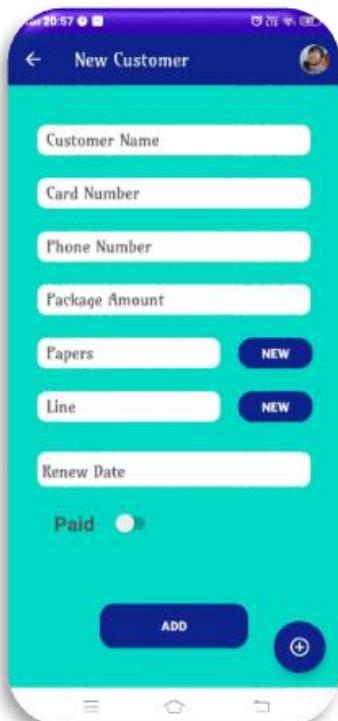
## Complaint page



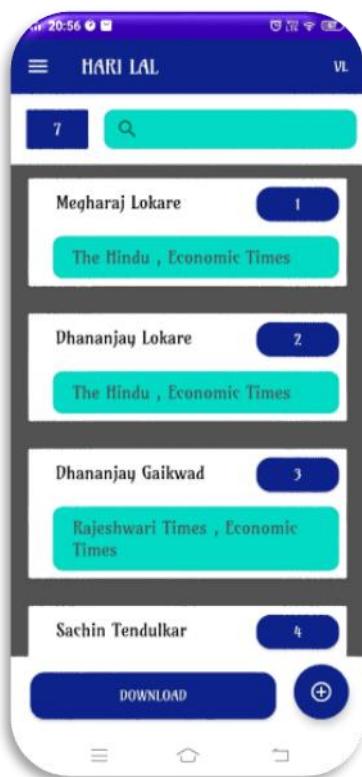
## Paid customer page



## Screen Layouts for Adding and updating a customer



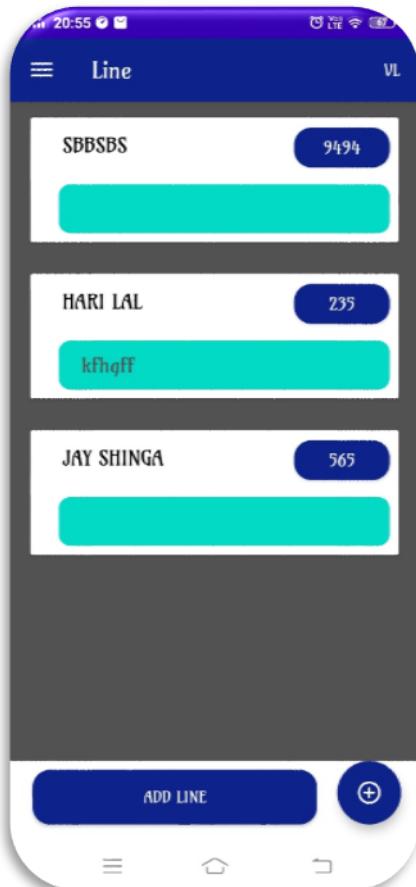
## ALL Line Customer



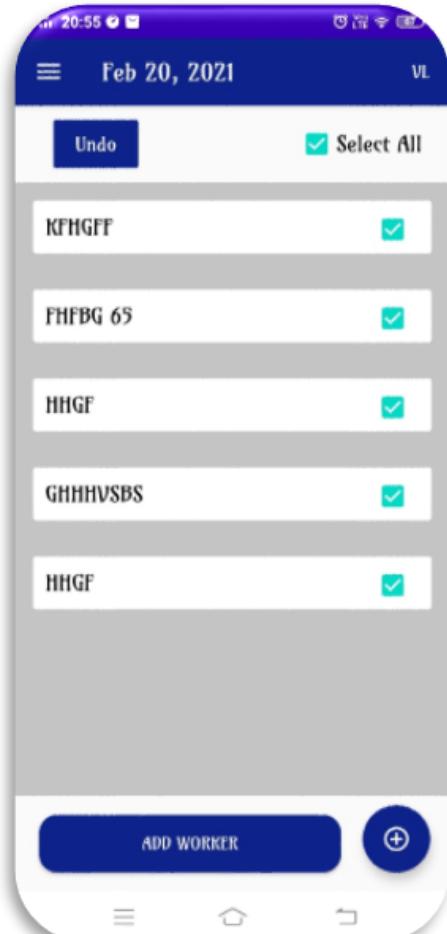
## Total package in Specific line



## All Lines



## Workers page



## ***FUTURE ENHANCEMENT***

- ✓ Due to time constraints on the part of the developer, additional feature could not be able to add.
- ✓ Building Our own server to provide backing up feature
- ✓ Any suggestions are accepted. Any sort of problem would be solved. Any changes made in the system in future, will Affect the other functioning of the System.
- ✓ Creating Start up guide for New users to make them understand things quickly

## ***CONCLUSION***

- An attempt is made in all its earnest towards the successful completion of the project. This system was verified with valid as well as with invalid data.
- This system is user friendly since it has been developed in Android Studio 4.1 a successful Developing environment for Application. Since the connection can be extended to any database. The control will be more powerful.
- Connecting it to any type of database extends the development control. Any suggestions for future development of the system are welcome
- Upgrading the system if may can be done without affecting the proper functioning of system.
- This Project was handle carefully to assure its quality like Correctness, Reliability, Maintainability , usability ,Flexibility,Performance