A

Project Report on

“Love Eat Restaurant Android App”

Submitted By

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2. Ms. Vishva Shukla

As a Partial Fulfilment towards the Degree of

“Master of Computer Application”

Submitted To

Department of Computer Science & Engineering

Faculty of Technology & Engineering

The Maharaja Sayajirao University of Baroda

Vadodara.

1.Title Page:-

Love Eat Restaurant Android Application

Department of Computer Science & Engineering

Faculty of Technology & Engineering

The Maharaja Sayajirao University of Baroda

Vadodara.

Certificate

This is to certify that **1.Mr.Avesh Bodila 2. Ms.Vishva Shukla** students of First Semester of MCA-III, Department of Computer Science & Engineering, Faculty of Technology & Engineering, Baroda, has successfully completed a project titled ***"Love Eat Restaurant Android App"*** for the period from 02 October 2020 to 1st January 2021 and fulfilled the requirements towards the degree of Master of Computer Applications.

Mr./Ms./Dr./Prof._____

Project Guide

Dr. Anjali G. Jivani

Head of the Department

Date:

Place: Vadodara.

2.Certificate of Department and/or Company:-

ITsouls®
imagination empowered

CERTIFICATE

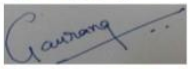
This is to certify that **Ms. Vishva Shukla** and **Mr. Avesh Bodila** from Master of Computer Application undertook the internship entitled "**Love Eat Restaurant**" using **Android Application** for **ITsouls, Vadodara from 2nd October 2020** to **1st January 2021**.

During the period of internship, they were sincere, hardworking and enthusiastic.

Their performance with regard to concept of Android with Firebase is commendable. They always actually participant in activities held in our organization.

We wish them all the best for their future endeavor!

Thanking You.
For ITsouls,



(AUTHORISED SIGNATORY)

1st January,2021

103,119, SAFFRON COMPLEX, FATEHGUNJ, VADODARA (GUJARAT)
Cell : 9723636072 Visit Us : www.itsouls.com

3.Introduction to the system:-

a. Project Definition:-

- "Love Eat Restaurant Application" is an Android Application.
- This System is developed to automate the food ordering process of Love Eat Restaurant.
- Restaurant is a kind of business that serves people all over with ready-made food. This Application is developed to provide service facility to the customer to order food online Using Android Application From their android devices. And also to Restaurant to receive orders and handle it using website.

b. Brief Description about the system:-

- The scope of this Application is to make an android App for customer online ordering of food, pay offline. The scope does not include the internal operations of the restaurant.
- Customer can also give Feedback using this application. So that owner of the restaurant can evaluate the whole system.
- This Restaurant App provides Various cuisine options to order food like Punjabi, Italian, Gujarati, South Indian, Chinese etc.…
- Using this application will save time of food ordering for both the parties admin and user. It will also reduce paper work..

4.System Requirement Specification:-

a. Functional and non-functional requirements:-

- Functional Requirements:-

1.Food Order via App:-

The user should be able to place food order via this application.

2.Take order:-

The admin should receive orders placed by registered users and should handle the same using website.

3.serveFood/Delivery of food:-

The Home Delivery option should be available in this application so that will be convenient for customer.

4.Payment:-

User should be able to pay safely and securely using different payment options.

5.Different variety of food:-

In a restaurant App Multiple Cuisine should be available to order food.. like Punjabi, Italian, Gujarati, South Indian, Chinese etc.…

6.Customer Information:-

User should be able to see his information as profile details in App.

7.Customer Feedback:-

User feedback is very important for admin for proper maintenance of application further development of restaurant and application

- Non-Functional Requirements:-

1.Maintanence of system:-

The maintenance of application, database, traffic handling in application should be done properly..

2.Perfomance Requirements:-

The application should work on every high level and low level android devices and website should run on servers properly.

3.Safety and Security requirements:-

Application sensitive information like user details will be accessed by admin only.

4.Licensing requirements:-

There are some licensing requirements before uploading the App on various platforms like playstore which should be fulfilled.

b. Hardware and Software Requirements (Tools and Technologies to be used)

❖ Hardware Requirement:-

• Dual – core 64-bit processor
• Up to 24 GB of internal storage
• 2 GB Android SDK
• 8 GB RAM
• Gradle
• Any Browser
• Any Android Device/Mobile Phone

❖ Software Requirement:-

i. Frontend tool:- Android Studio , visual studio
ii. Technology:- Android, java
iii. Database :- Firebase, SQLite
iv. Operating System:- Windows 7, 8, 8.1, 10

c. Feasibility Study:-

- Technical Feasibility:-

As we are going to develop system using Android studio in our project, we need proper knowledge of technology and its function areas. We should make sure that functionalities specified in system can be achieved using this technology. We should refer to other applications developed using this technology for better understanding. Books, Documentation of technology provided by authors of technology and other resources on internet might help to much extend.

- Economic Feasibility:-

To make any application it should must implement value for money concept…for all the user, the developer and the owner of that application..
We studied requirements and did a cost benefit analysis for a restaurant application and this App in surely incudes such services which ensures such cost benefits… e.g the user can can order preferable food from home and select delivery option…in this way the In-Transit expenses are saved for user..For Owner .. he can handle ordering service through this App and he will be saved from high maintenance cost of restaurant…And a developer can also make such applications in very less cost as references are easily available..and the cost of uploading an app is also not so high….

- Operational Feasibility:-

When developing any system, we need proper environment resources as well as man power. For developing Studio mobile application available computer system is enough and in case of development tool – Android Studio has provided state of art SDK (Software Development kite3). For gathering more help when development application we also provision of an internet connection.

- Scheduling/Time Feasibility:-

We have 3 months for developing entire application. It is not sufficient to develop entire Application in given time, so we used incremental process model to design software and release software in individual modules. We prepared time schedule which can efficient manage proper time required for developing modules.

d. Software Process model used with Justification:-

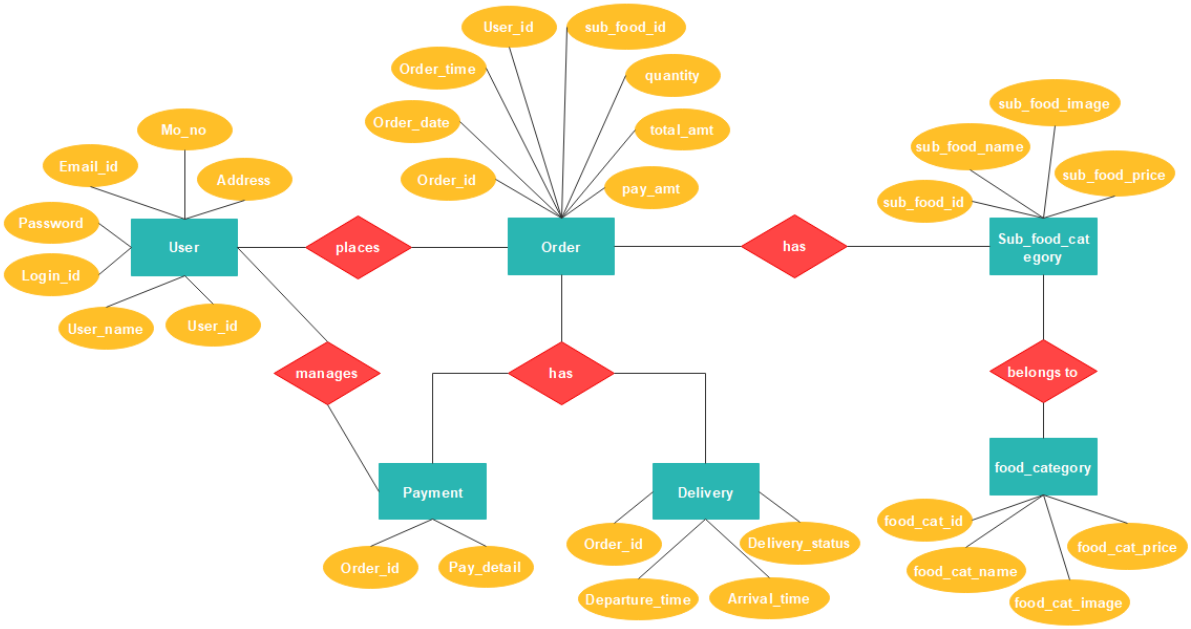
- Incremental model: -

As new requirements can arise in future incremental models are used. With the help of it we can fulfil maximum user requirements. Many features can be added after the development of the system that serves the main purpose. If there are less number of employees to work on the project, Incremental development model is very useful to complete the project before the deadline.

• This model is more flexible – less costly to change scope and requirements.
• It is easier to test and debug during a smaller iteration.
• In this model customer can respond to each built.
• Lowers initial delivery cost.
• Easy to manage risk because risky pieces are identified and handled during it'd iteration.
• Incremental model is used because requirement of the complete system is clearly defined and understood.
• It's suitable for system's future updates when the technology or the source is changed.

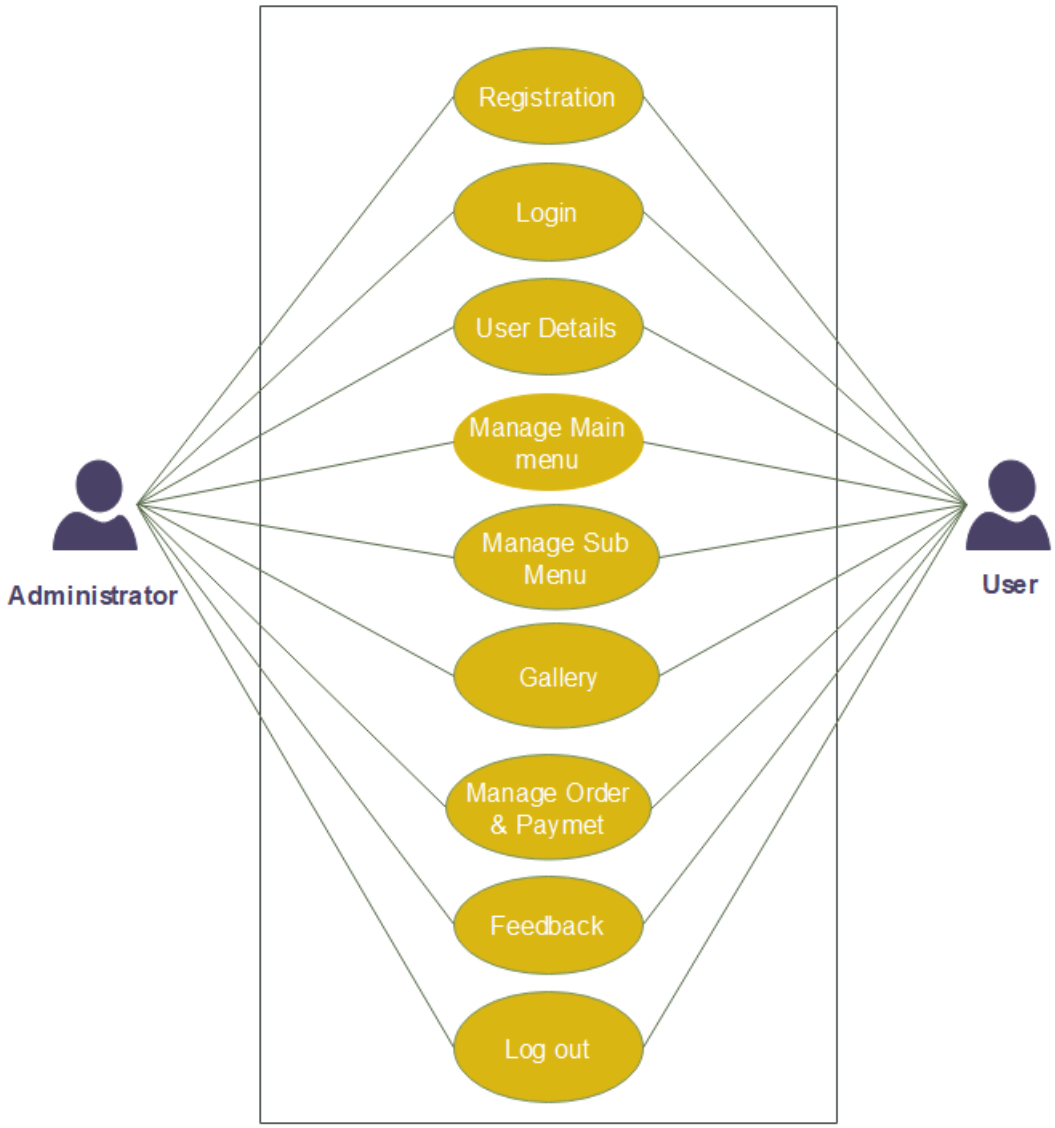
5. Software Design:-

a.ER Diagram:-

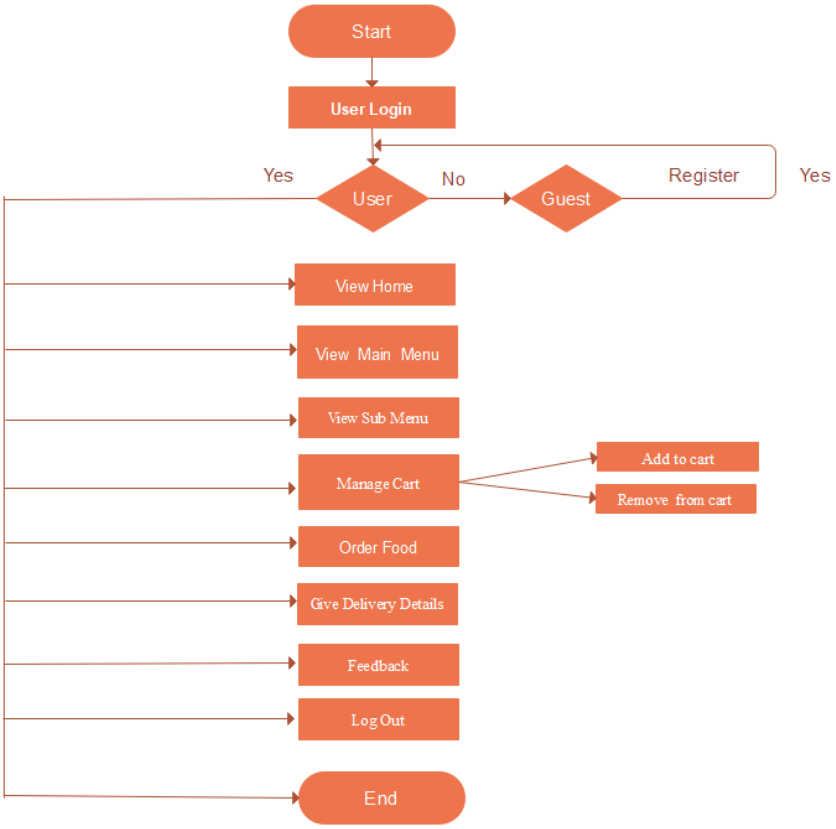


b.UML Diagrams:-

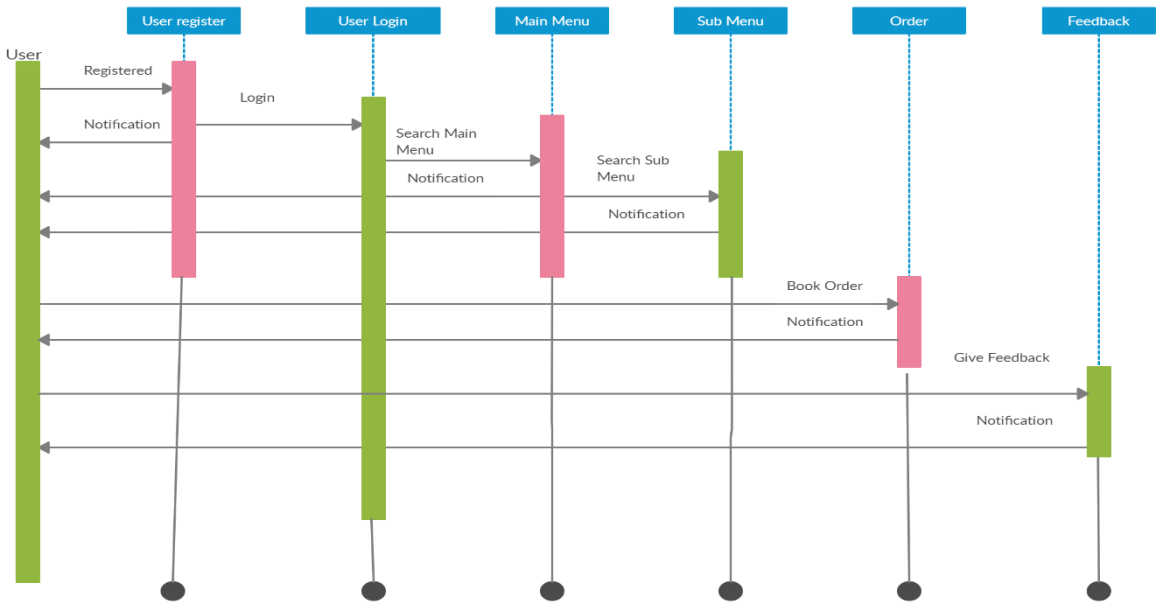
❖ Use Case Diagram:-



❖ System Flow Diagram/Activity Diagram:-



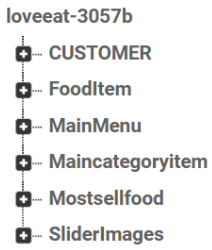
❖ Sequence Diagram:-



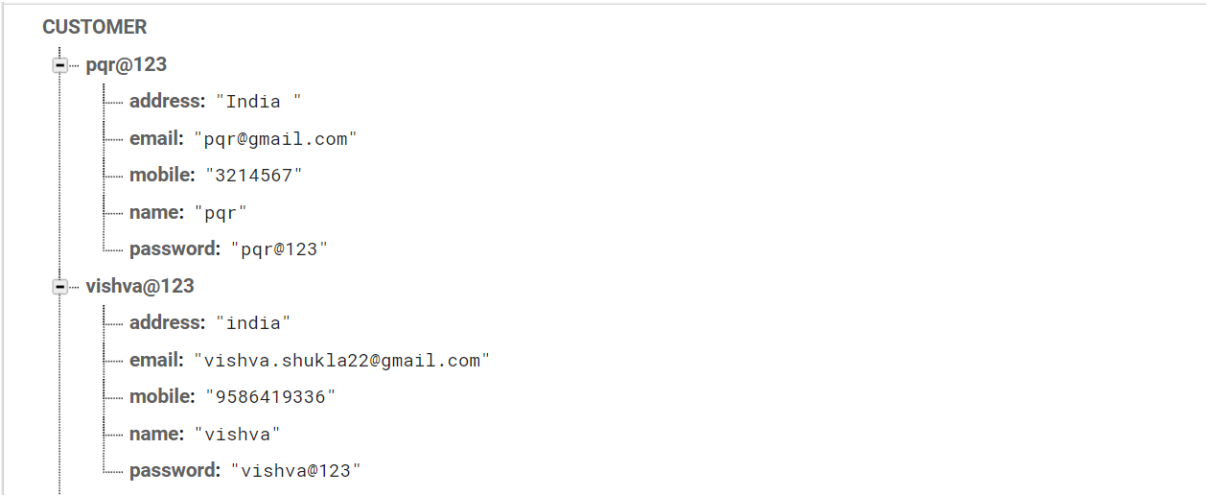
C. Data Dictionary:-

As we have used Firebase Database for this Love Eat Restaurant .. It will be used by both Android Application for user side and for Website for Admin side. As in Firebase the Database is stored in a tree structure, It is shown as below..

❖ Love Eat Restaurant Database:-



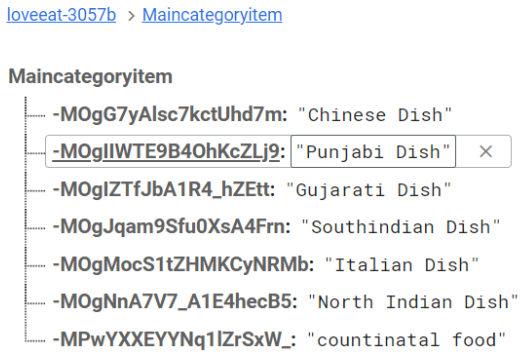
❖ CUSTOMER:-



❖ FoodItem:-

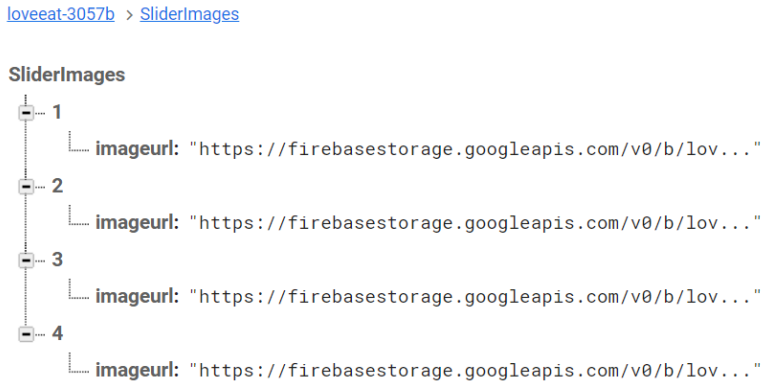
❖ MainMenu:-

❖ Maincategoryitem:-



❖ Mostsellfood:-

❖ SliderImages:-



6. Implementation (Screen Shots)

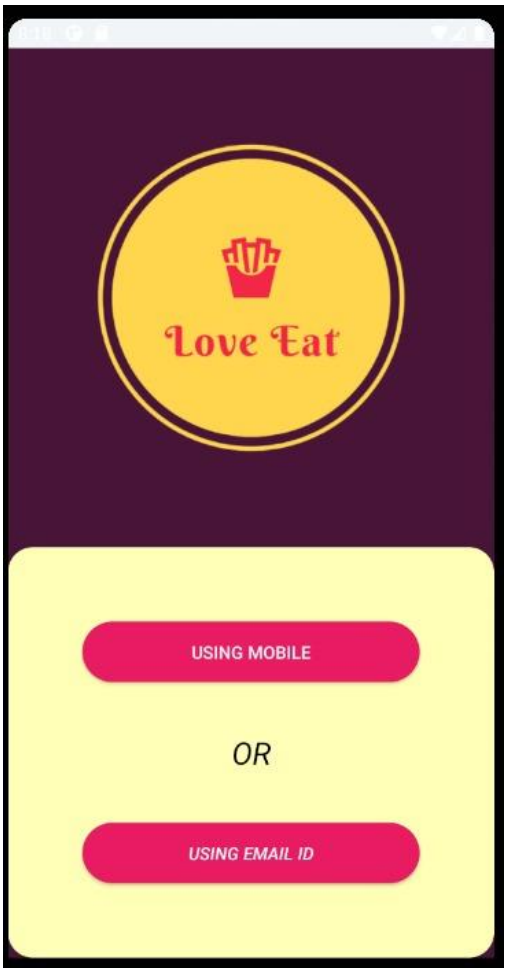
a. Love Eat Restaurant Android App (User Side)

Splash screen

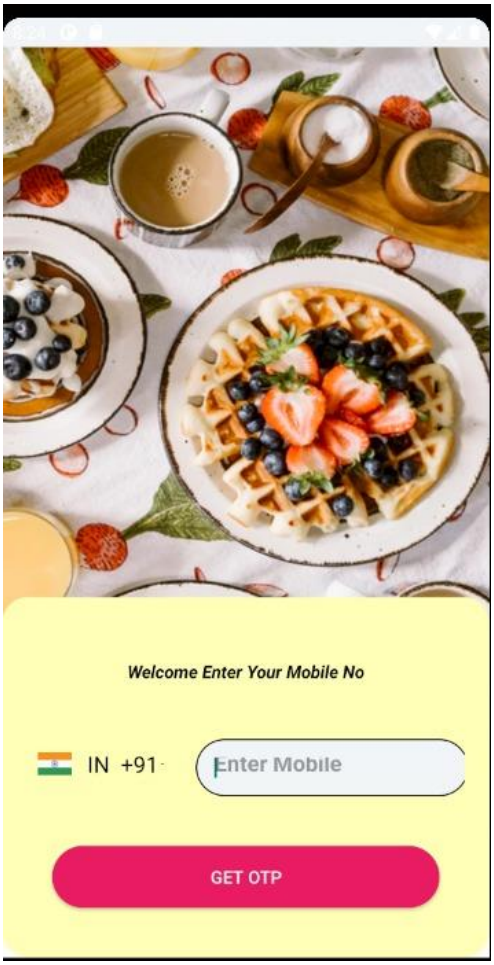
Main Activity

Signup Activity

Login Options Activity

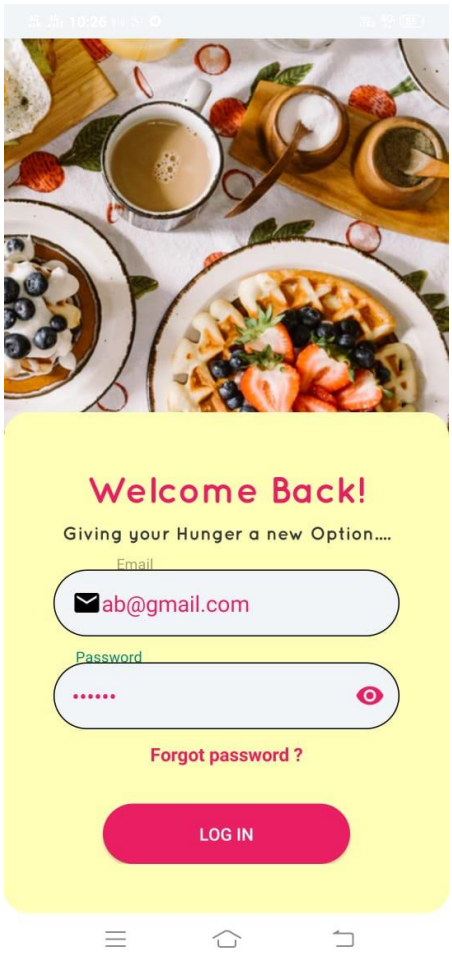


Login using Mobile Activity

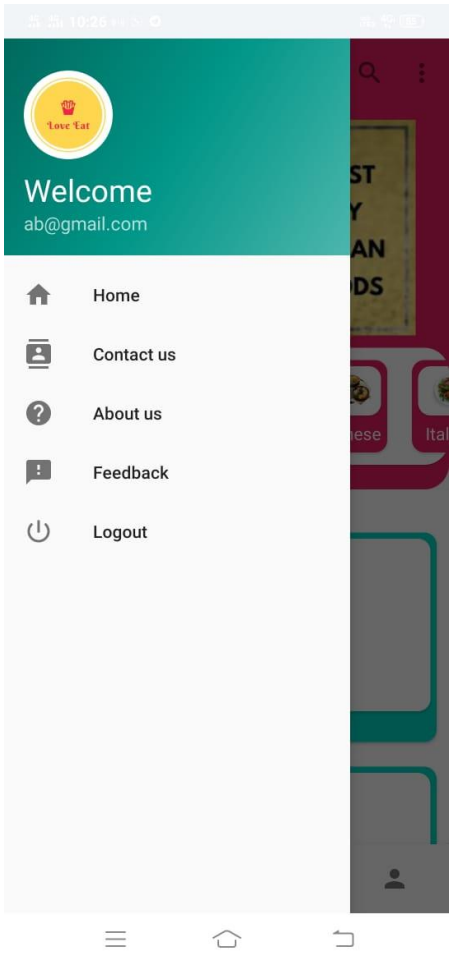


Mobile Verification Activity

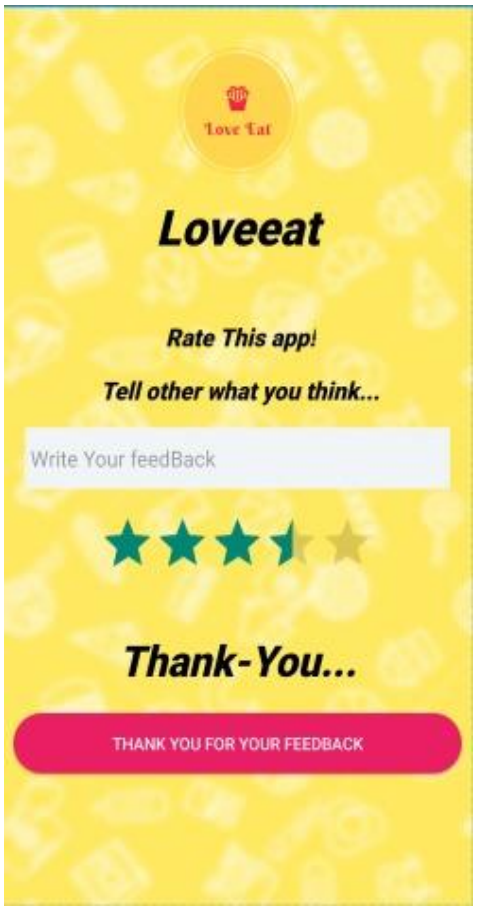
Login using Email Activity



Navigation Drawer

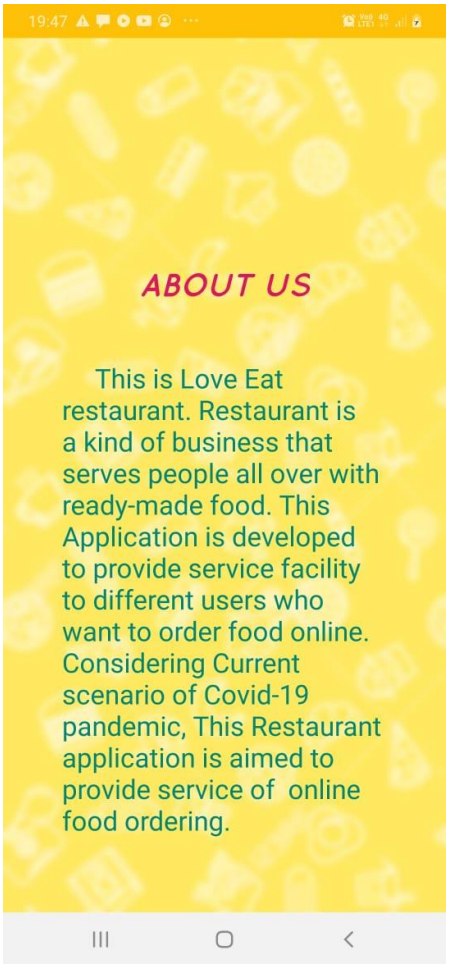


FeedBack



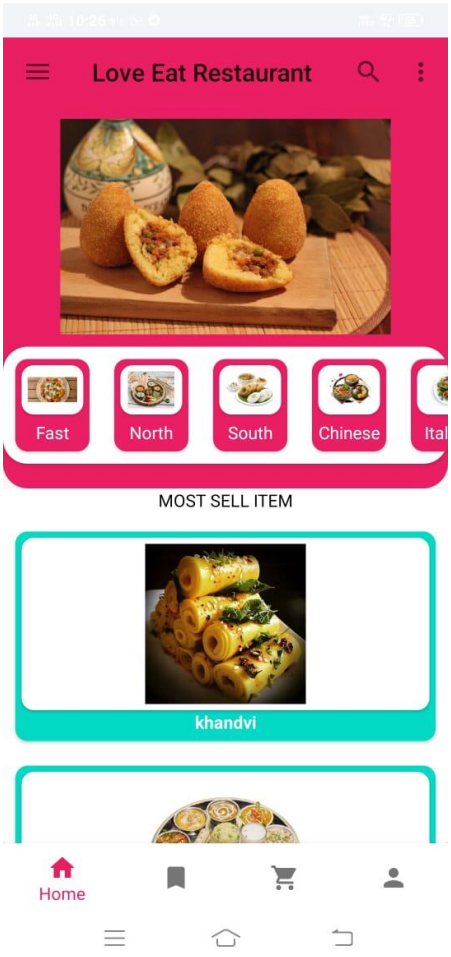
Contact Us

About Us

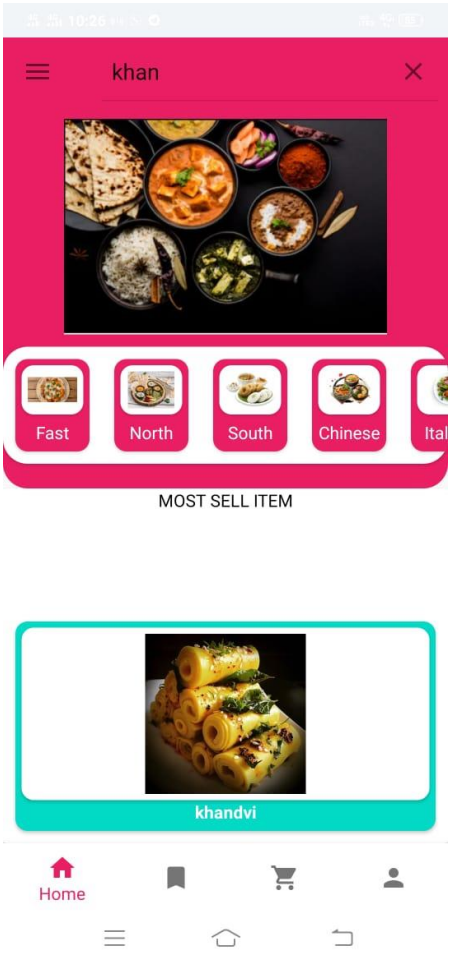


Profile Activity

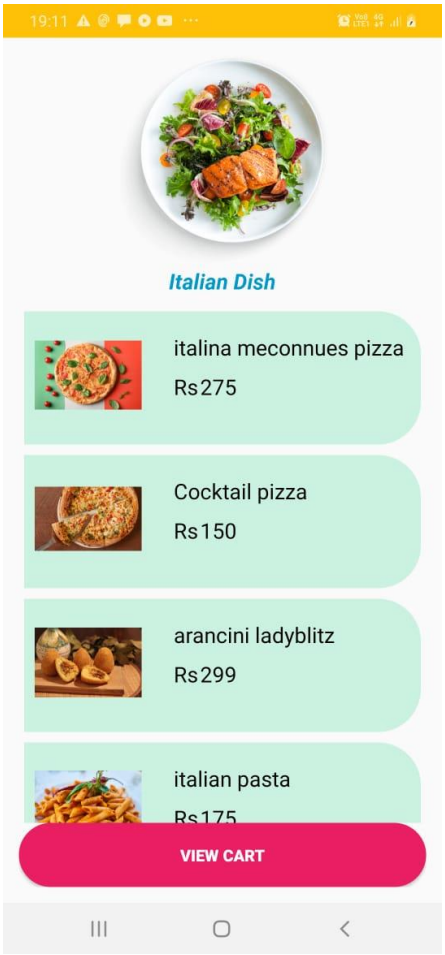
Home Activity



Search Activity



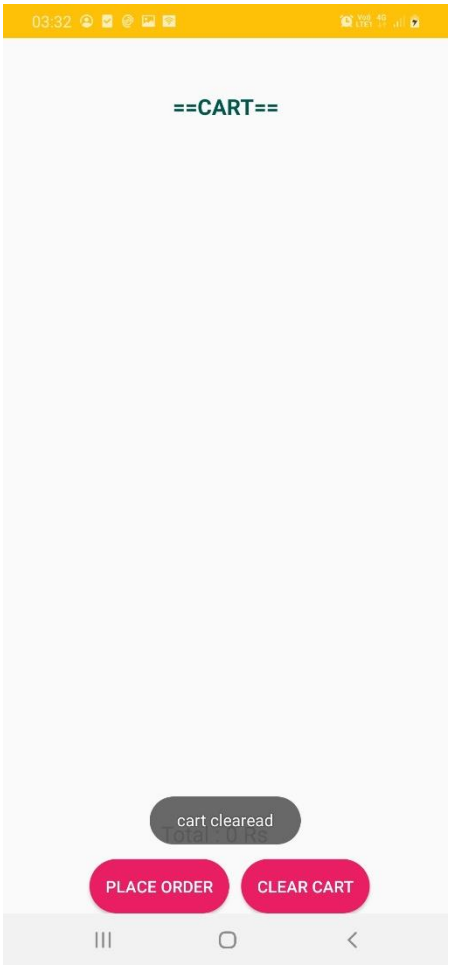
Subitem Activity



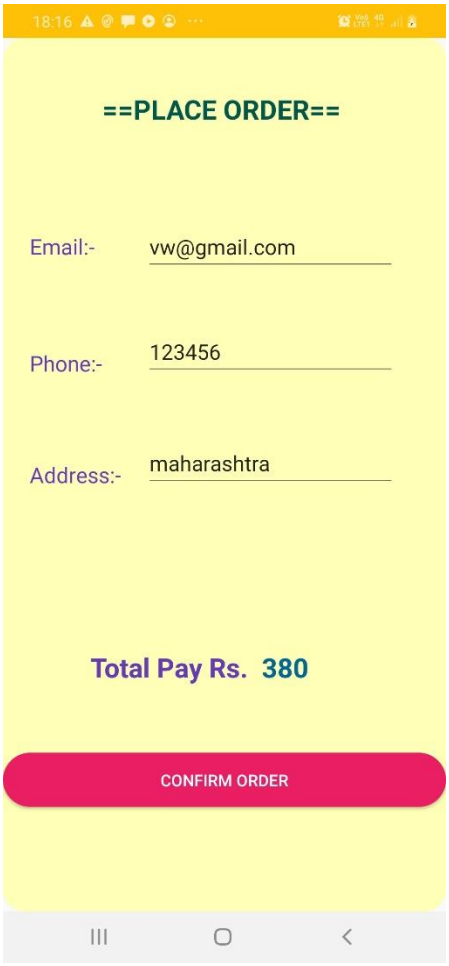
Add Item Activity

Cart Activity

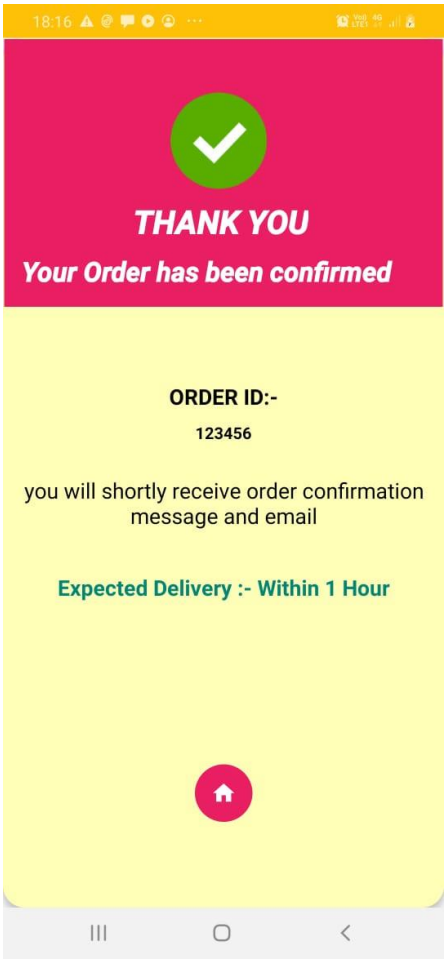
Clear cart



Place Order Activity



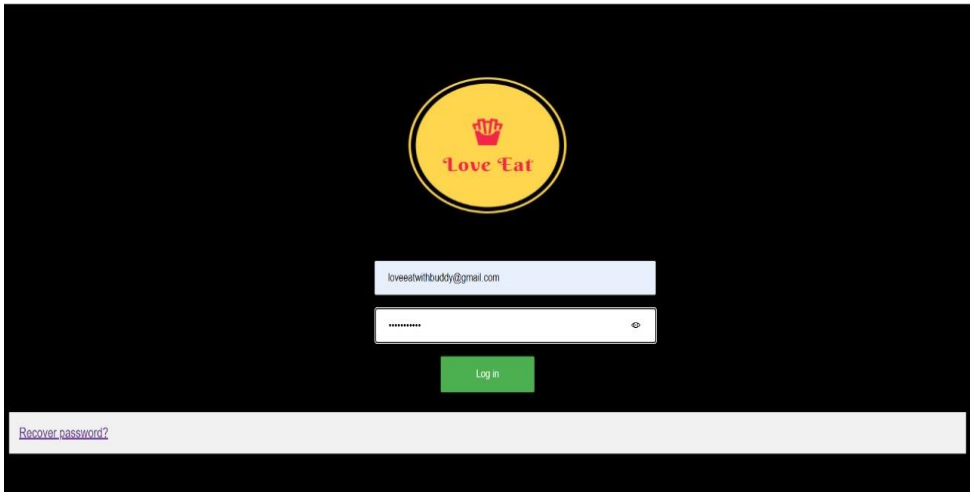
Confirm Order



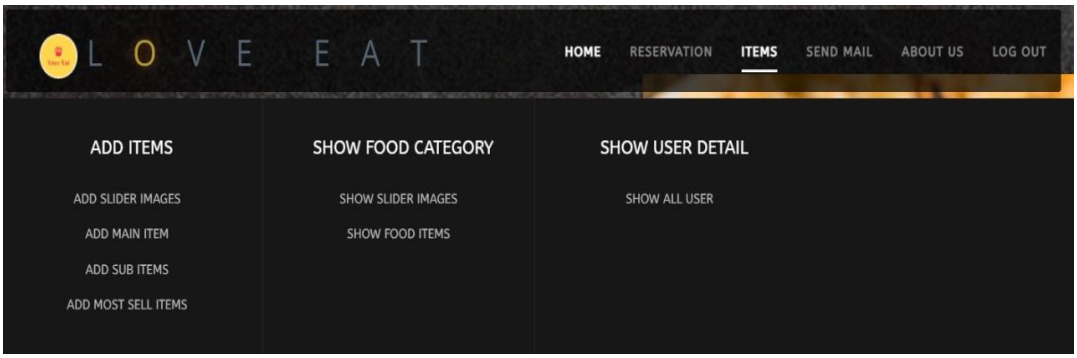
b. Love Eat Restaurant Website (Admin Side)

- Home_Page:-

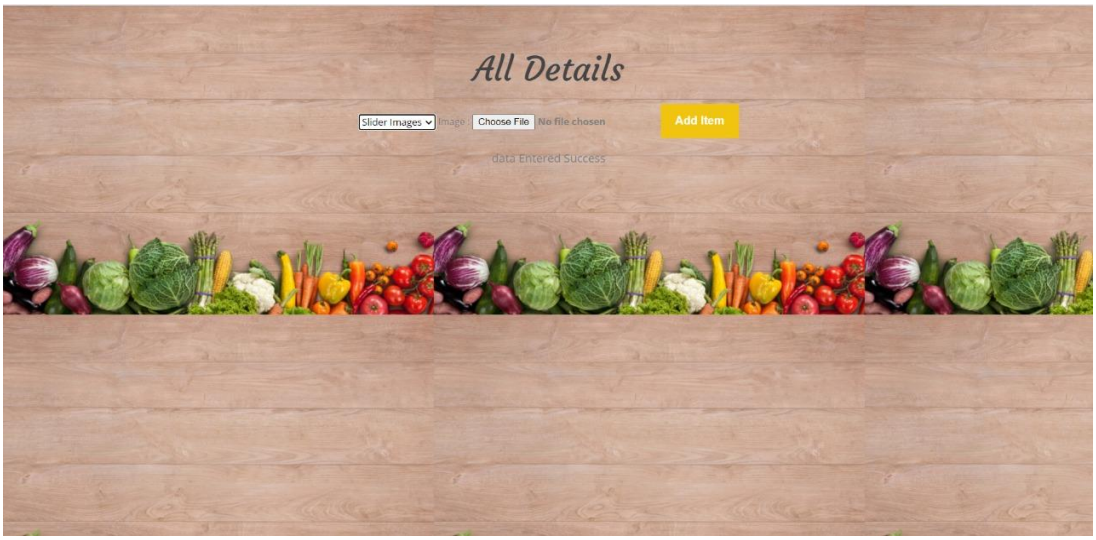
- Login_Page:-



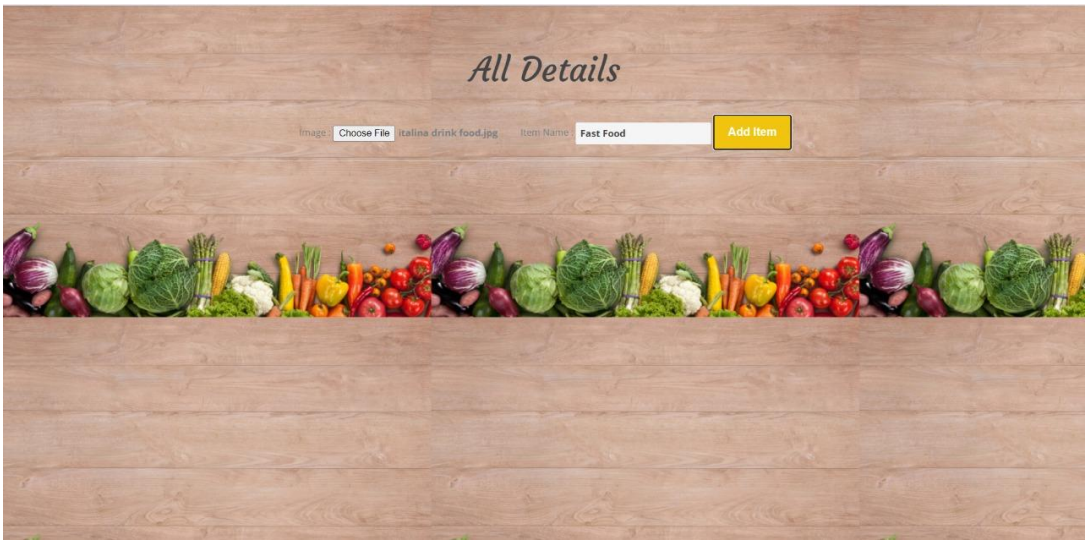
❖ Item View:-



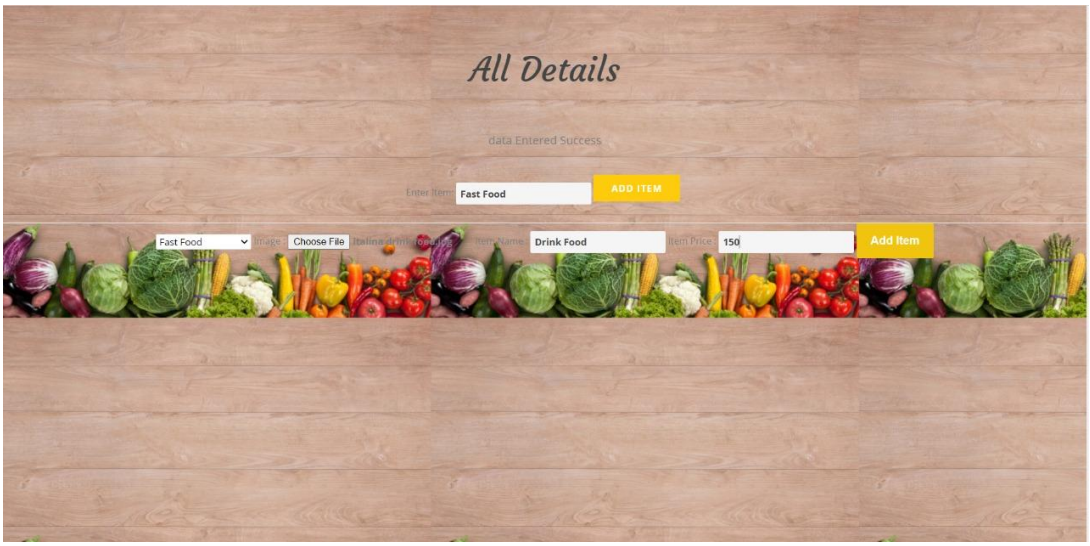
❖ Add Slider Images:-



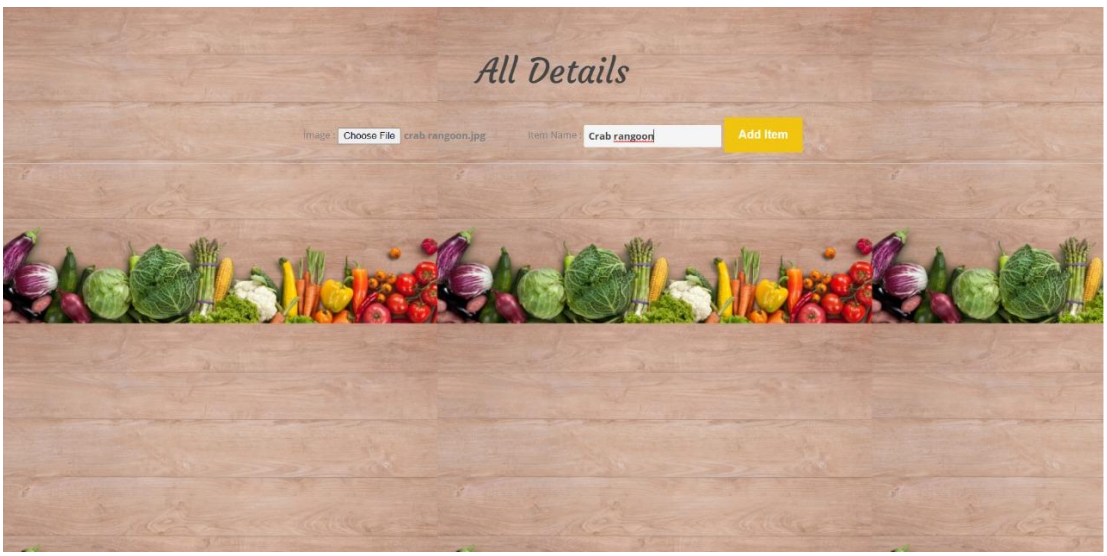
❖ Add Main Item:-



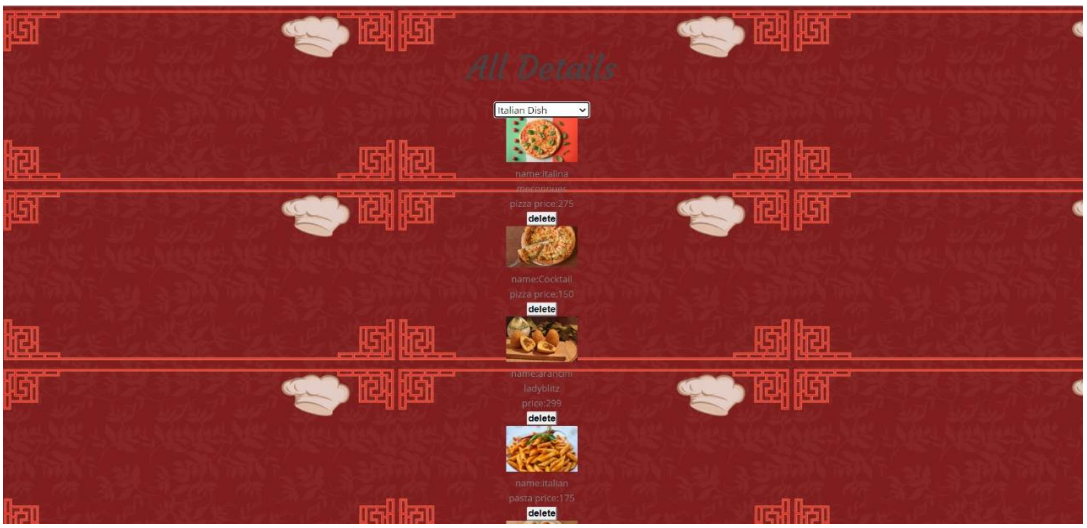
❖ Add Sub Item:-



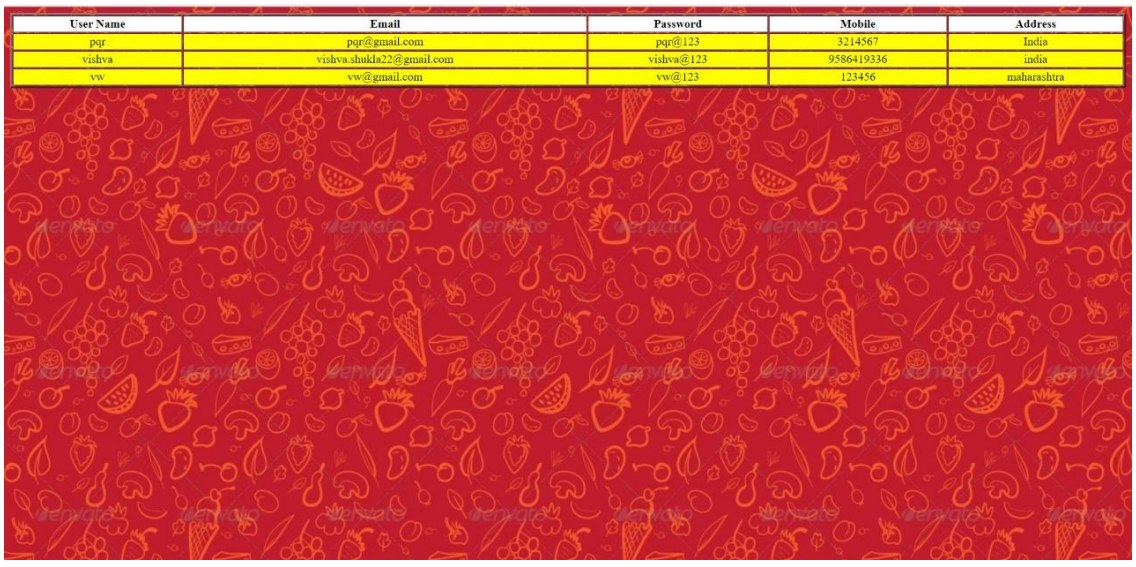
❖ Add MostSell Item:-



❖ Show Food Items:-



❖ Show All Users:-:-



User Name	Email	Password	Mobile	Address
pqr	pqr@gmail.com	pqr@123	3214567	India
vishva	vishva.shukla22@gmail.com	vishva@123	9586419336	india
vw	vw@gmail.com	vw@123	123456	maharashtra

7. Testing

7.1 Unit Testing

- Unit testing focuses effort on the smallest unit of software component or module.
- Using the component-level design description as a Guide, important control paths are tested to uncover errors within the boundary of the module.
- The relative complexity of tests and uncovered errors is limited by the constrained scope established for unit testing. The unit test is white-box oriented, and the step can be conducted in parallel for multiple components.

Test Case 1: Login Verification

Sr No	Field Name	invalid	Valid
1	Email id	Ab.com	avesh@gmail.com
2	Password	Null	Any user choice

Test Case 2: Customer Registration

Sr No	Field Name	invalid	Valid
1	Username	Null	Loveeat
2	Email	Ab.com	loveeat@gmail.com
3	Password	Null	Any user choice

Test Case 3: Customer Forgot password

Sr No	Field Name	invalid	Valid
1	username	Null	Loveeat
2	Email id	Ab.com	loveeat@gmail.com

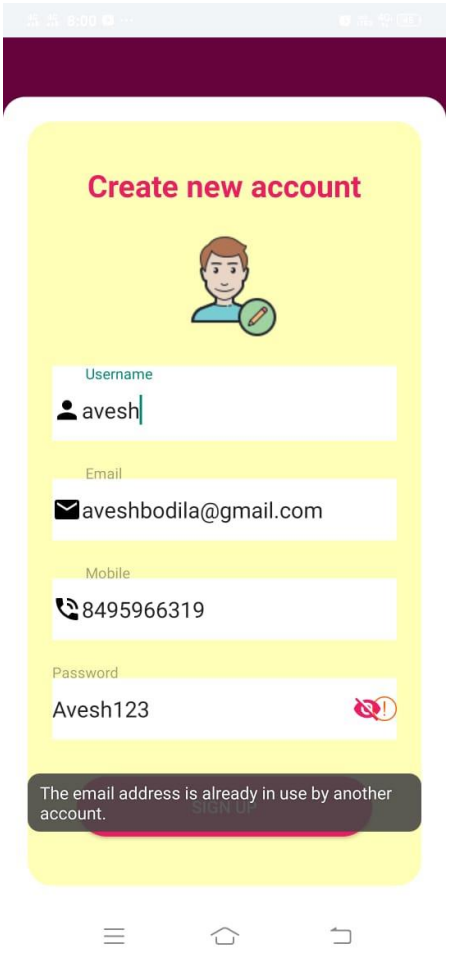
Test Case 4: Profile Detail

Sr No	Field Name	Invalid	valid
1	username	Null	Loveeat
2	Email id	Ab.com	loveeat@gmail.com
3	Password	Null	Any user choice
4	Mobile	Null /start with (6-9) Must be 10 digit	8485966319
5	Address	Null	Any user choice

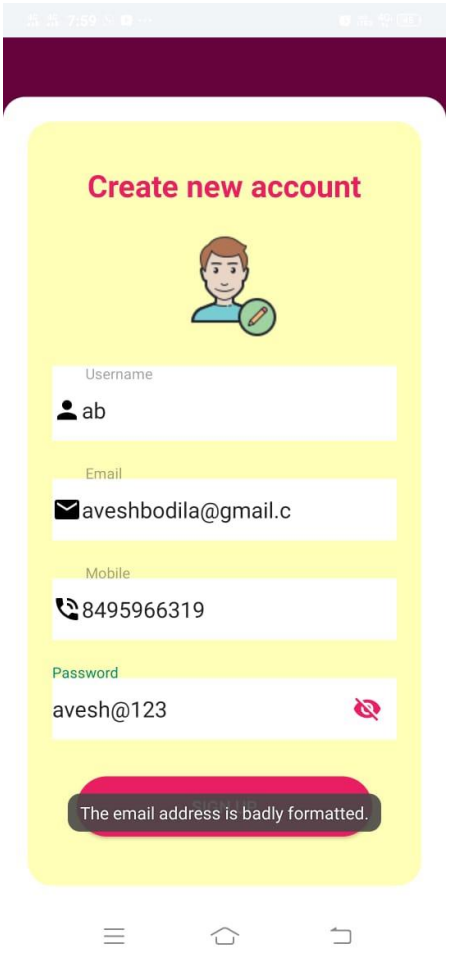
7.2 Navigation Testing

Link	Expected pages	Result
Admin	Login	Login page
Customer	Login/Register	Login/Register

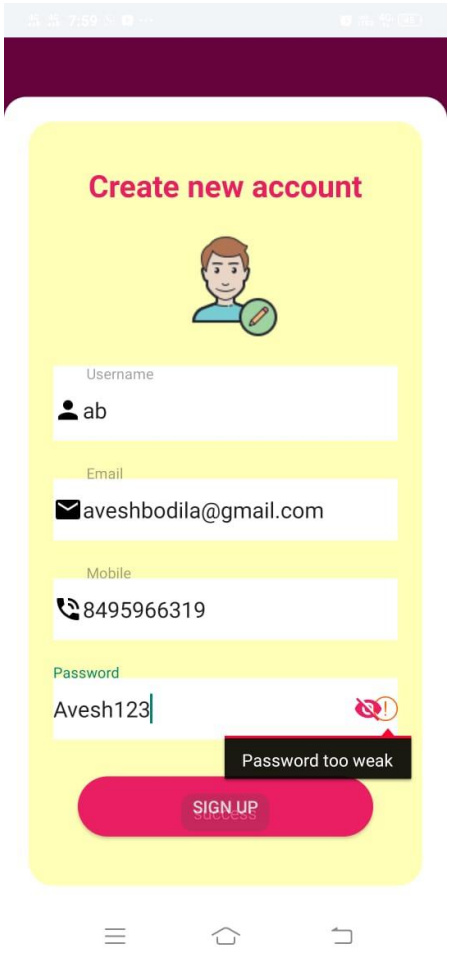
Email already Exists



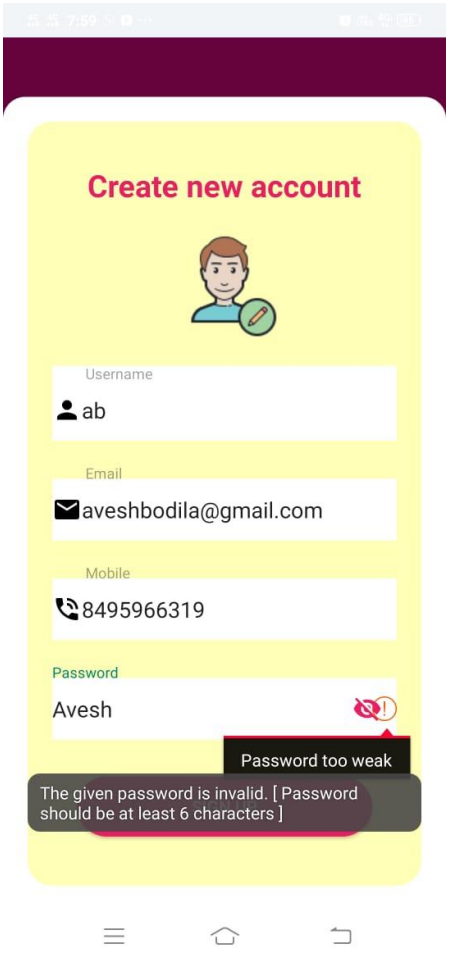
Improper Email Format



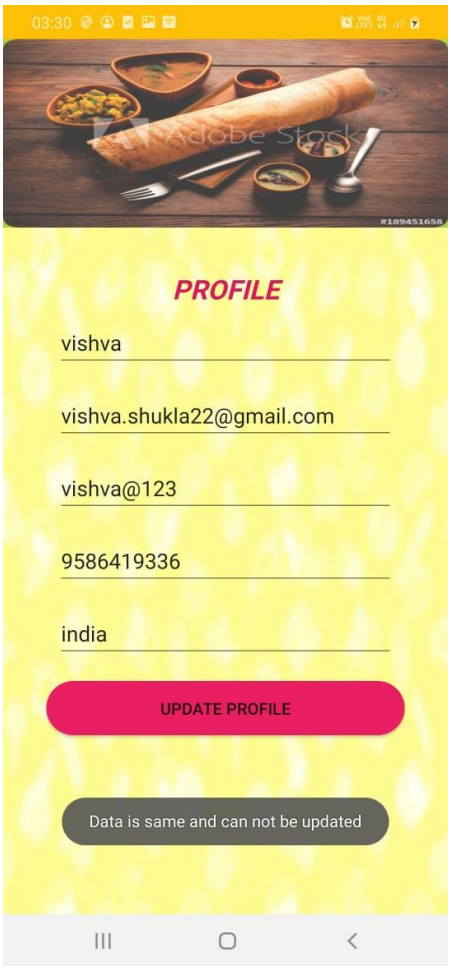
Weak Password



Minimum Characters Password



Update Profile Validation



7.3 Functional Testing

- ✓ In functional testing basically, the testing of the function of component Or System is done.
- ✓ It refers to activities that verify a specific action or function of the code. This is typically described in a requirement specification or in a functional Specification.
- ✓ Functional Testing is a testing technique that is used to test the features/Functionality of the system or software should cover all the scenarios Including failure paths and boundary cases.
- ✓ Functional testing is formal type of testing performed by testers. Functional testing focuses on testing software against design document, use cases and Requirements document. Functional testing is a black box type of testing and does not require internal working of the software unlike white box testing.
- ✓ This type of testing ignores the internal parts and focus on the output is as per requirements or not.
- ✓ Black box testing geared to functional Requirements of an application.

7.4 Environment Testing

- Following OS are considered for testing environment operability of software:
  - ✓ Windows 7
  - ✓ Windows 8
  - ✓ Windows 10(64 bit)

  For Mobile

  - ✓ Android Ice Cream Sandwich (4.0.4)
- Following browser is considered for testing environment operability of software:
  - ✓ Mozilla Firefox
  - ✓ Google Chrome
  - ✓ Internet Explorer (website design will change in IE as per result obtained during testing)
- Development Environment:
  - Hardware & Software Configuration
    - ✓ Software use for application development:

    Microsoft Visual Studio 2012

    - ➢ Android Studio 4.0. +
    - ➢ Microsoft SQL Server Management Studio
    - ➢ IIS server
      - ✓ Operating System used for application development:
        - ➢ Windows 10
      - ✓ Hardware used for application development:
        - ➢ Microprocessor - 1.8 GHz Intel Core i5 8th Generation
        - ➢ Hard disk drives - 1 TB
        - ➢ Memory - 8 GB DDR4 RAM
        - ➢ Keyboard - Dell
        - ➢ Mouse - Dell
        - ➢ LED monitor

7.5 Conclusion

- Self-Analysis of Project Viabilities

  Definitely, it's cheaper to use online Mobile shopping for both personal and business use because most of it is usually free.

- Problem Encountered and Possible Solutions
  - Hardware Limitations
    - The only limitation posed is when the disk space is exhausted. And it can be solved by extending the disk space.
  - Internet speed
    - Internet connection speed should be minimum 128 kbps.
- Summary of Project work

  In whole procedure to prepare project, we first gather the requirement of the project and decide the time schedule. After planning we design the documentation of project. After the design we generate the code of system. In design the code we do the error estimation and effort estimation. If error is occurred then solve it. Finally, when code is designed then test the project and decide the cost of project.

8. References (Books and Websites Referred)

Websites referred:-

stackoverflow.com
Google.com
youTube.com

Application referred:-

Domino’s Pizza Application