

Mini Project On
Business Adda - android app for
small-scale businesses

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2022-23

CERTIFICATE OF APPROVAL

This is to certify that the following students

Mayur Misal (2020510044)
Onkar Tatkare (2020510064)

Have satisfactorily carried out work on the project
entitled

“Business Adda”

Towards the fulfilment of project, as laid down
by
Sardar Patel Institute of Technology
during year
2022-23.

Project Guide:
Prof. Nikhita Mangaonkar

PROJECT APPROVAL CERTIFICATE

This is to certify that the following students

**Mayur Misal (2020510044)
Onkar Tatkare (2020510064)**

Have successfully completed the Project report on

“Business Adda”

which is found to be satisfactory and is approved

at

SARDAR PATEL INSTITUTE OF TECHNOLOGY,
ANDHERI (W), MUMBAI

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Abstract

In this competitive environment of digital advertising and online businesses, a businessman needs a nice platform which will help him to showcase his vision of the idea. In simple words the platform where he can promote his business efficiently with the help of online marketing strategies available under one roof rather than using multiple platforms. The platform where the owner can sell at his best and the buyer can purchase with his best.

Business Adda is a platform where all businesses will get to promote their business with other different businesses. This will help small-scale businesses to showcase their good ideas and products with others to increase their sales by great digital marketing. All owners or different business teams can reach out personally to other companies. Also, all the services, products, can be reviewed by consumers to enhance the quality and their skills.

Not only sellers but also it will be helpful for the buyers!! All the local business owners can buy the products or can access the services provided by the other sellers. One of the best parts of the Business Adda is, the application allows the direct contact between buyers and seller by avoiding all the third-party resources, to maintain the fluent communication between both the parties.

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1 Introduction

1.1 Problem Definition

As there are 'n' number of applications or websites already exist on different platforms which are built to promote one's business efficiently. This application costs some number of charges monthly or yearly basis to continue business promotions on their platforms. Even after paying charges, business sales don't satisfy as expected.

1.2 Objectives and Scope

1.2.1 Objectives

The Android based Application "Business Adda" is used

- To provide a platform to different businesses to develop a great marketing platform and to grow their company's sales
- To share new ideas and innovation in the business domain, with all other businesses
- To achieve new clients and to create transparency between buyer and the seller

1.2.2 Scope

Business owners can post pictures of new products to promote business after registering into the application with proper credentials.

Business owners can directly contact other vendors through chat messages this will help to avoid third party involvement.

Business owners can create a private group with other business owners to share the new ideas.

Users can like the posts and comment their reviews. Also they can share the post externally to anyone

The application is being made for providing a platform to local business owners to promote their businesses and connect with other local business owners.

1.3 Existing System

There are many existing systems related to this topic but not all systems will provide all the features. Some systems provide some features and some are dedicated systems which mean they only provide one feature only. Existing systems are doing great as per the scope of their applications. The day by day growth in technology makes users look after the new technology or feature which helps them to make their lives simpler and faster.

The existing systems considered while developing Business Adda are:

- Justdial:

Justdial is a free application/website. It Provides local search for different services in India over the phone, website and mobile application. It Works for services and facilities under different domains. JustDial application works for different interests of areas like travelling, banking, daily needs, automobiles, medical facilities etc.

- Instagram:

Instagram is a free and open-source application. Users can upload photographs and short videos. Users can follow other users. This application allows users to connect their Instagram account to other social networking sites, enabling them to share uploaded photos to those sites. It provides "Explore", a tab inside the app that displays popular photos, photos taken at nearby locations, and search.

1.4 Proposed System

There are many similar applications like Business Adda but those applications have different drawbacks. These drawbacks are taken into consideration while implementing Business Adda.

The few problems for which the Business Adda is a solution for:

- There are many applications which have dedicated systems. Business Adda focuses on more than one domain. Everything related to the domain is available here.
- There are many applications that are difficult to understand for the people who don't have any detailed technical knowledge.
- Not everyone can afford the marketing and advertisement charges.
- There can be possibility that one can have more than one business which can be hectic to make track with all different sellers, and they require each and every business should be there under one proper platform.
- One of the problems is people don't want to invest or to avoid any specific marketing company or application which will charge more than their income itself.

1.5 System Requirements

- Hardware Requirements on Server Side

Table 1.5.1: Hardware Requirements on Server Side

Processor	Dual Core Processor or Above
RAM	Minimum 4 GB RAM
Storage	Minimum 10 GB Hard Disk Space for smooth run

- Hardware Requirements on Client Side

Table 1.5.2: Hardware Requirements on Client Side

Device	Android Device with Touch Screen minimum 5" inch Display
Processor	Dual Core Processor or Above
RAM	Minimum 2 GB RAM
Storage	Minimum 250 MB Storage Space

- Software Requirements on Server Side

Table 1.5.3: Software Requirements on Server Side

Operating System	OS Independent
Database	Firebase Real-time database

- Software Requirements on Client Side

Table 1.5.3: Software Requirements on Client Side

Operating System	Android Smartphone
Server	Not Required

2 Software Requirement Specification (SRS) and Design

2.1 Purpose

With the increasing growth of technology and the entrance into a digital age, we should learn to deal with different types of advertisements and digital marketing strategies for our profits in business and economic advantages. Important purposes behind developing the Business Adda application project are as follows:

- By showcasing strategies and integration of our ideas digitally to grow an individual's business is the main purpose of this project.
- Providing the user-friendly platform to the startups and entrepreneurs that will help them to give a kick start to their newest ideas and efforts is the purpose of mankind this application. Also making all the facilities available under one roof so it will be helpful to users to avoid mistakes and that will help to enhance the growth of the firm.

2.2 Definition

To build an Android Application for local business owners for promotion and marketing purpose.

2.3 Overall Description

2.3.1 Product Functions

The product function includes:

1. Authentication: Users are required to Sign-up and Log-in. Users will get a verification email for successful registration.
2. Profile: This will contain information regarding business owner and their business.
3. Home: Every users posts will be visible on the home tab.
4. Users: Business owners can see the list of other sellers in the users tab.
5. Chats: Business owners can chat with other sellers.
6. Group Chat: Similar kinds of business owners can create a group for sharing new ideas and discussion.

2.3.2 User Characteristics

- Anyone can use this application if they own a small business and wish to interact with other neighbouring business owners while also marketing their firm online.

3 Project Analysis and Design

3.1 Methodologies Adapted

Incremental Model is a process of software development where requirements are divided into multiple standalone modules of the software development cycle. In this model, each module goes through the requirements, design, implementation and testing phases. Every subsequent release of the module adds function to the previous release. The process continues until the complete system is achieved. The various phases of incremental model are as follows:

- Requirement analysis:

In the first phase of the incremental model, the product analysis expertise identifies the requirements. To develop the software under the incremental model, this phase performs a crucial role.

- Design and Development:

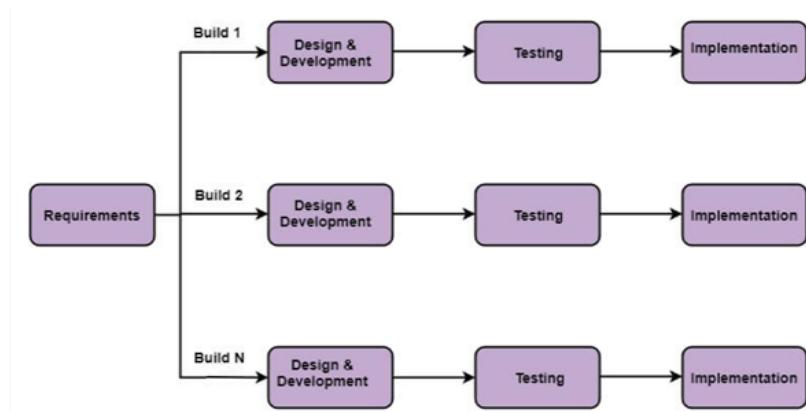
In this phase of the Incremental model of SDLC, the design of the system functionality and the development method are finished with success.

- Testing:

In the incremental model, the testing phase checks the performance of each existing function as well as additional functionality.

- Implementation:

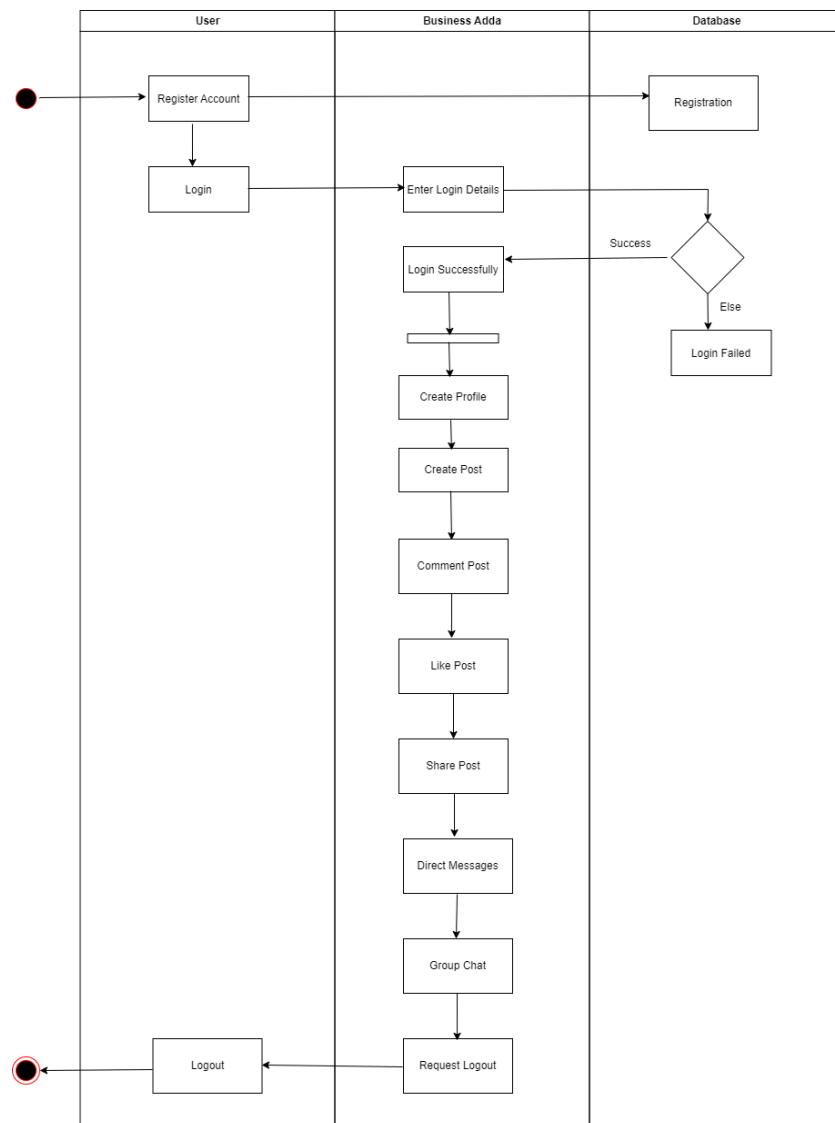
Implementation phase enables the coding phase of the development system. It involves the final coding that is in the designing and development phase and tests the functionality in the testing phase. After completion of this phase, the number of the product working is enhanced and upgraded up to the final system product.



3.1.1: Diagrammatic Representation of Incremental Model

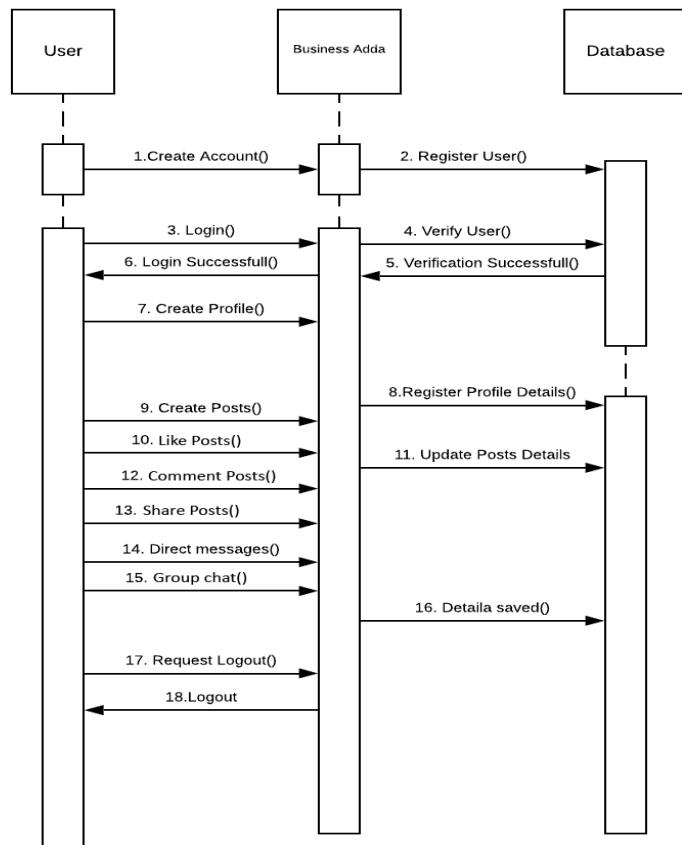
3.2 Modules

3.2.1 Activity diagram



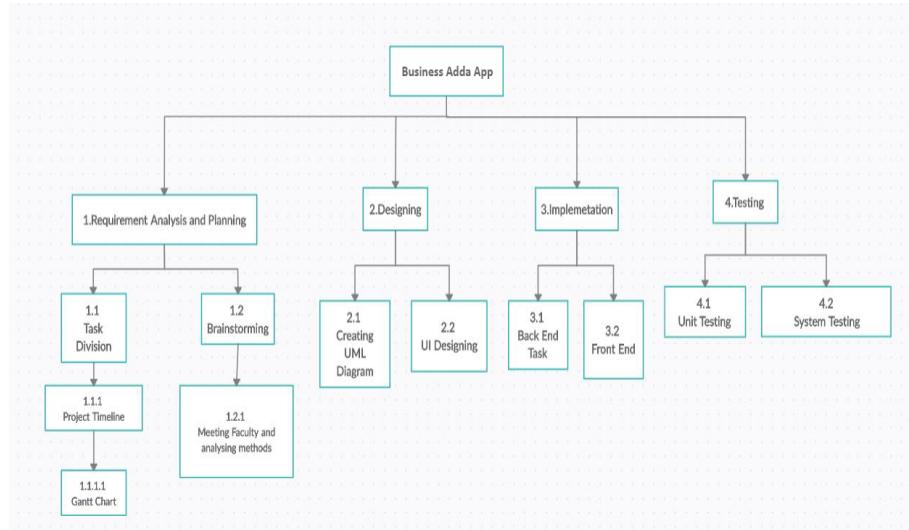
3.2.1: Activity diagram of application

3.2.2 Sequence diagram



3.2.2: Sequence diagram of application

3.2.3 Work Breakdown Structure



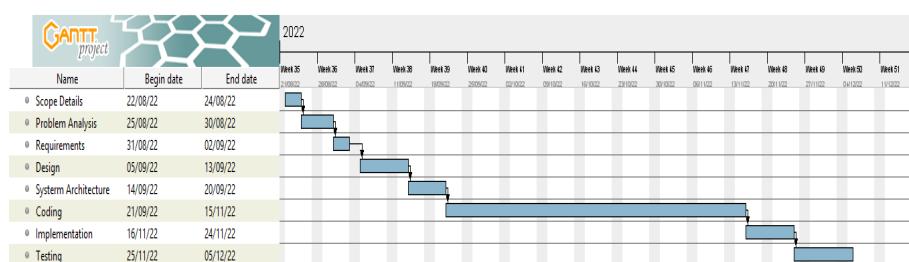
3.2.3: Work Breakdown Structure

3.2.4 PERT Chart



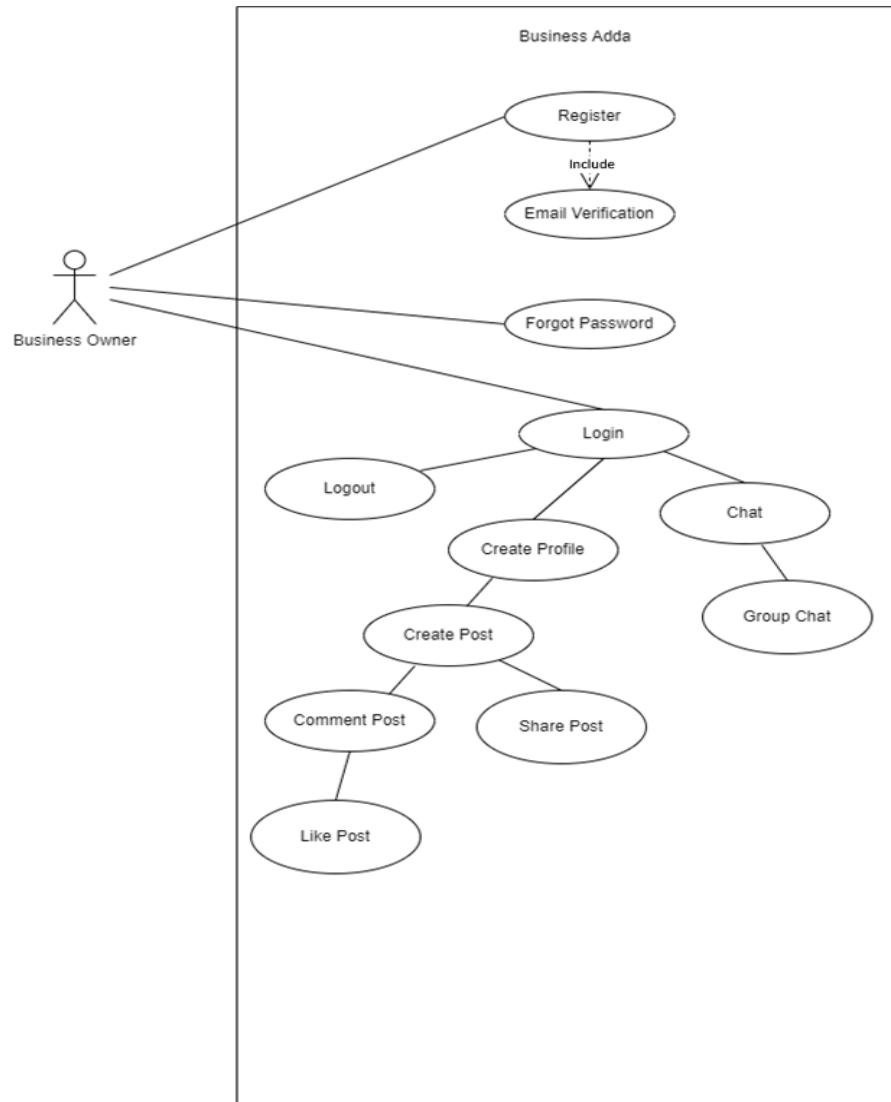
3.2.4: PERT Chart

3.2.5 Gantt Chart



3.2.5: Gantt Chart

3.2.6 Use-Case



3.2.6: Use-Case Diagram of application

Use Cases:

1. Register
2. Login
3. Update Profile
4. Create Post
5. Chat
6. Create group
7. Group Chat

Table 4.2.1: Use Case Table - Register

Use Case ID	1
Use Case Name	Register
Actor	Business owner
Pre-Condition	User must have valid email address
Post-Condition	User can login

Table 4.2.2: Use Case Table - Login

Use Case ID	2
Use Case Name	Login
Actor	Business owner
Pre-Condition	User must register themselves first
Post-Condition	User can view other users posts, create posts, chat with other users.

Table 4.2.3: Use Case Table - Update Profile

Use Case ID	3
Use Case Name	Update Profile
Actor	Business owner
Pre-Condition	Login
Post-Condition	User can view or edit the profile

Table 4.2.4: Use Case Table - Create post

Use Case ID	4
Use Case Name	Create post
Actor	Business owner
Pre-Condition	Login
Post-Condition	User can add caption, description and images to create a post.

Table 4.2.5: Use Case Table - Chat

Use Case ID	5
Use Case Name	Chat
Actor	TPC
Pre-Condition	Login
Post-Condition	Can chat with other users.

Table 4.2.6: Use Case Table - Create Group

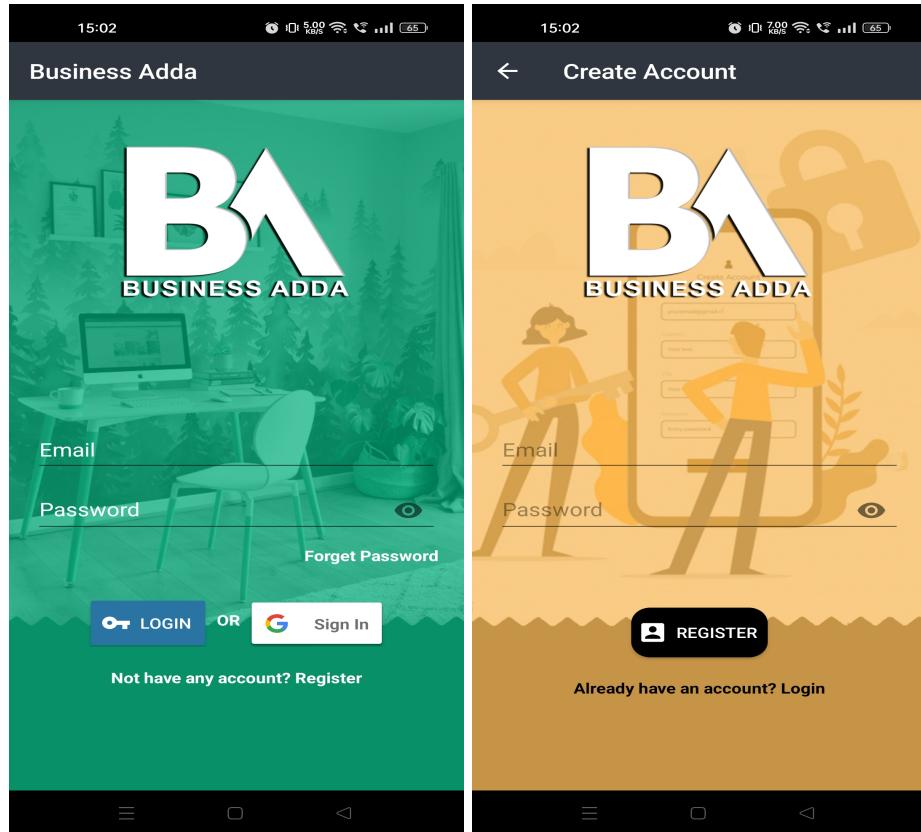
Use Case ID	6
Use Case Name	Create group
Actor	Busienss owner
Pre-Condition	Login
Post-Condition	Can create a group for similar kinds of business.

Table 4.2.7: Use Case Table - Group chat

Use Case ID	7
Use Case Name	Group chat
Actor	Business owner
Pre-Condition	Login
Post-Condition	Can chat with multiple similar kinds of business owners in a group.

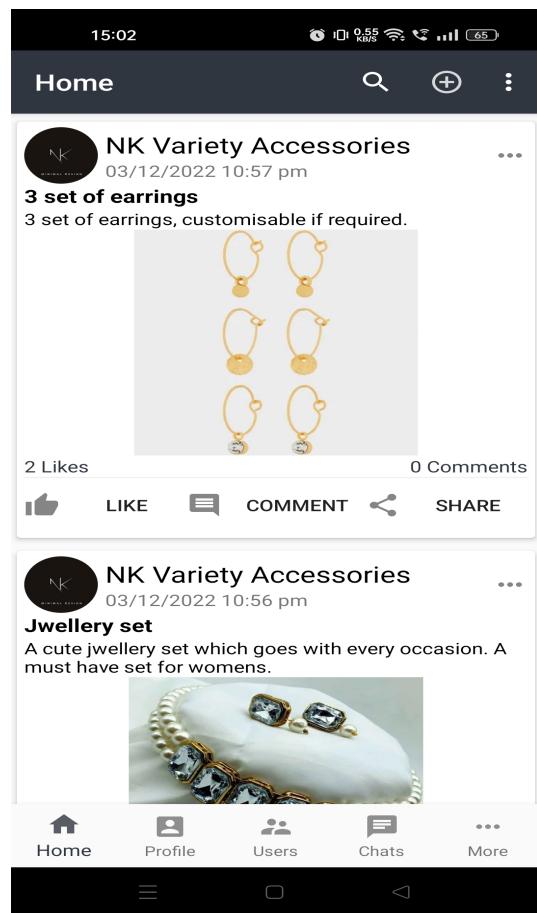
4 Project Implementation and Testing

4.1 Login and Register



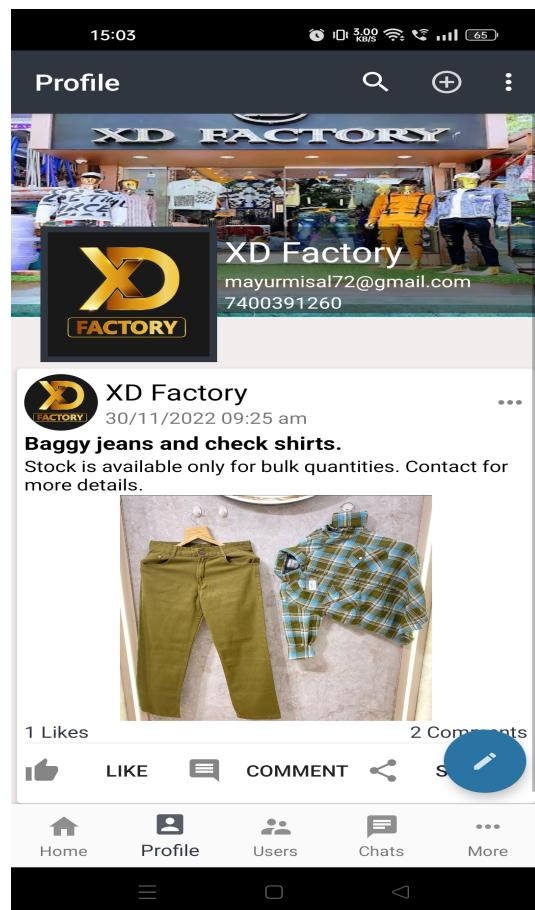
4.1.1: Login and Register

4.2 Home Tab



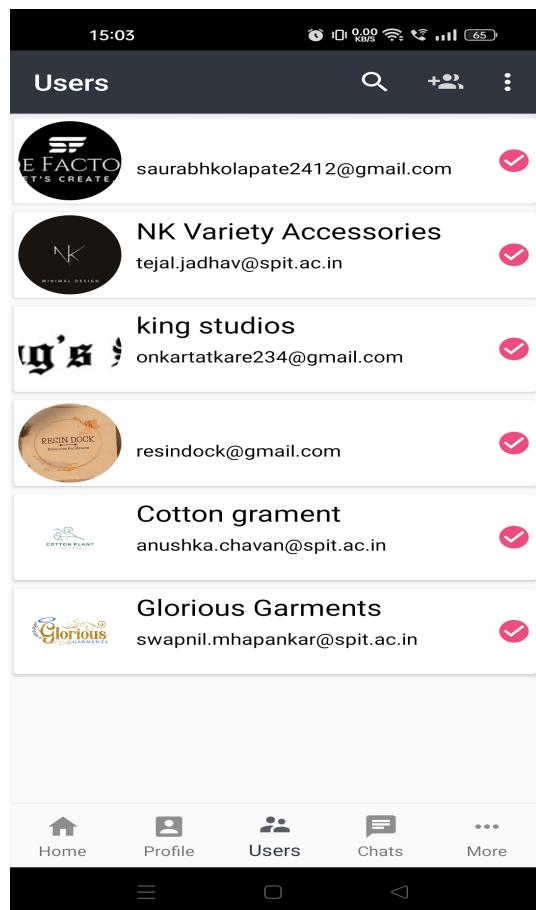
4.2.1: Home View

4.3 Profile



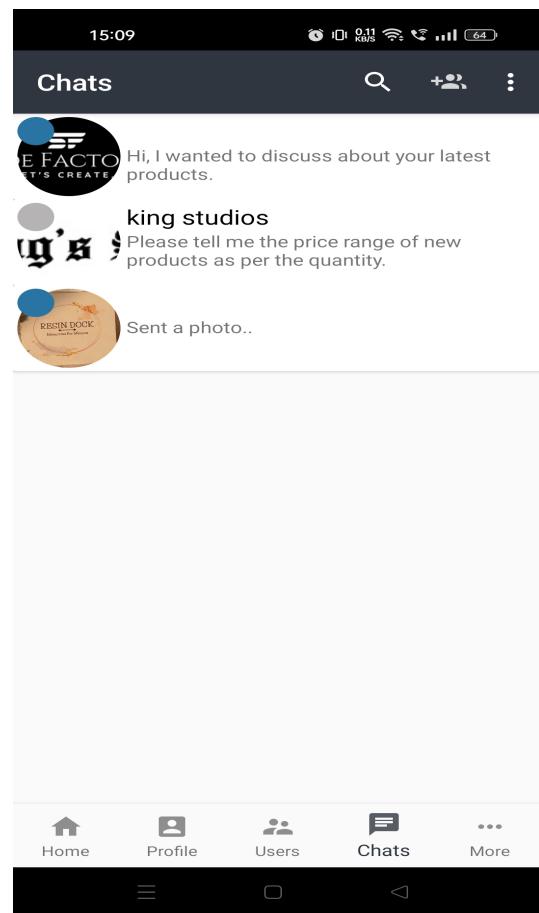
4.3.1: Profile

4.4 Users List



4.4.1: Users List

4.5 Chats



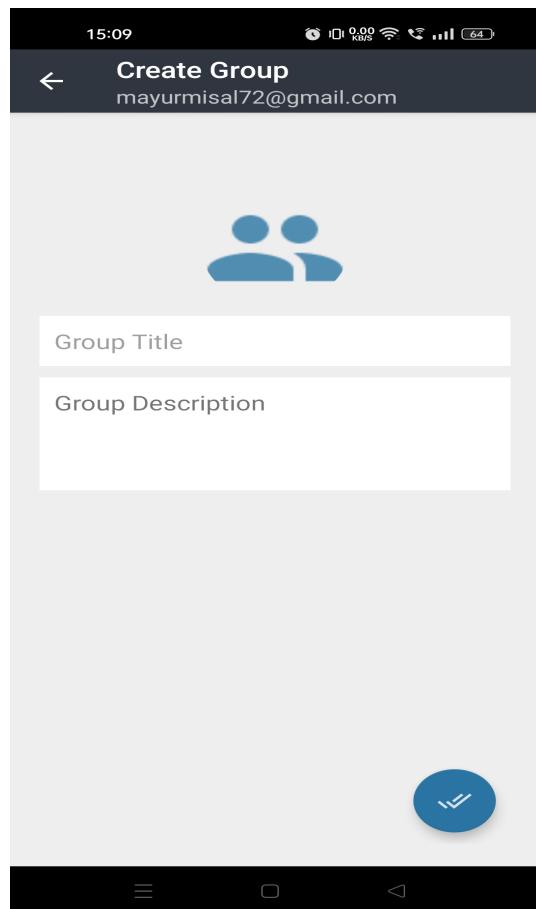
4.5.1: User chats list

4.6 Chat screen



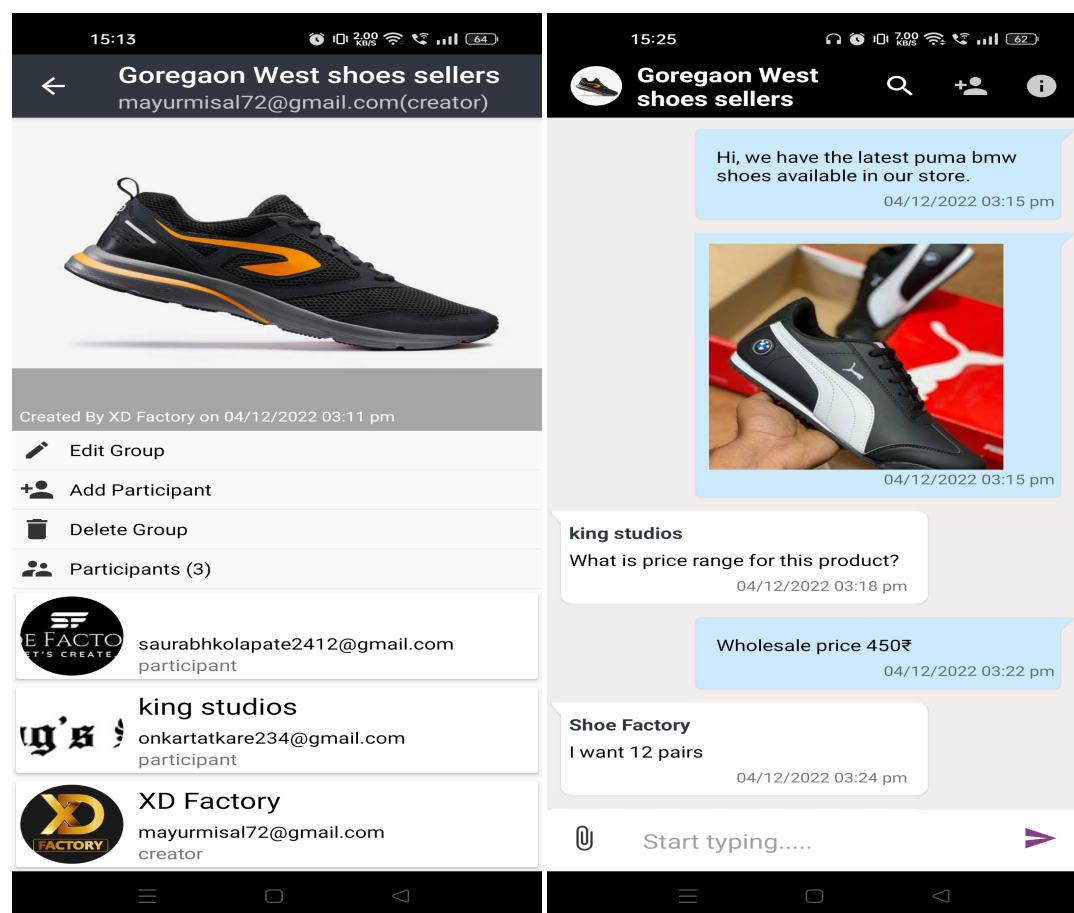
4.6.1: Chat screen

4.7 Create Group



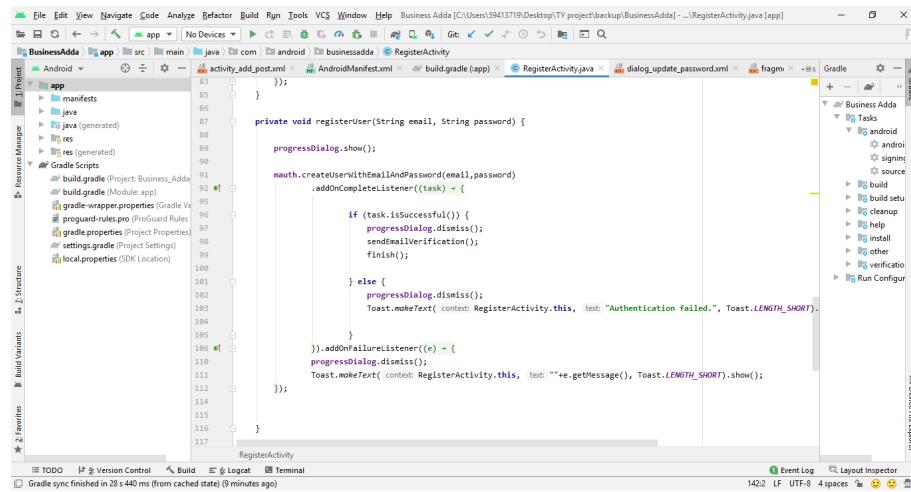
4.7.1: Create group

4.8 Group details and chats



4.8.1: Group details and chats

4.9 Code 1 - Registration Module



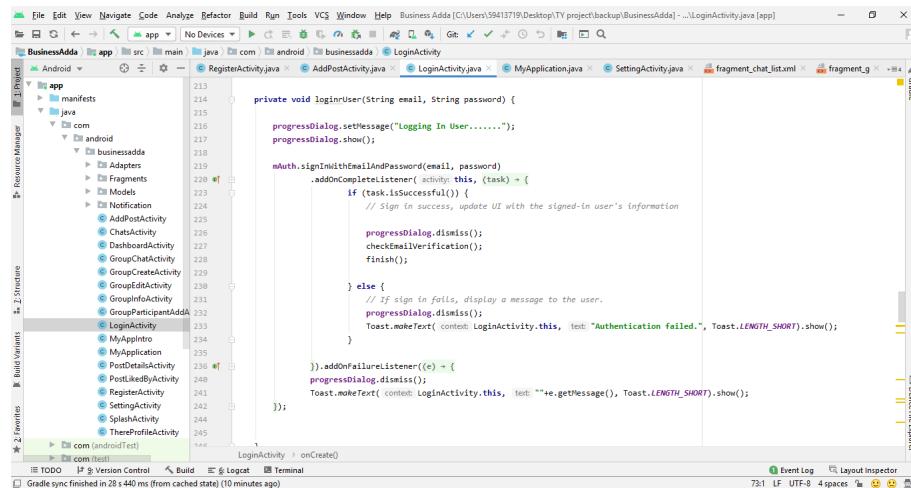
```

private void registerUser(String email, String password) {
    progressDialog.show();

    mAuth.createUserWithEmailAndPassword(email, password)
        .addOnCompleteListener(RegisterActivity.this, (task) -> {
            if (task.isSuccessful()) {
                progressDialog.dismiss();
                sendEmailVerification();
                finish();
            } else {
                progressDialog.dismiss();
                Toast.makeText(RegisterActivity.this, "Authentication failed.", Toast.LENGTH_SHORT).show();
            }
        }).addOnFailureListener((e) -> {
            progressDialog.dismiss();
            Toast.makeText(RegisterActivity.this, e.getMessage(), Toast.LENGTH_SHORT).show();
        });
}

```

4.10 Code 2 - Login Module



```

private void loginUser(String email, String password) {
    progressDialog.setMessage("Logging In User.....");
    progressDialog.show();

    mAuth.signInWithEmailAndPassword(email, password)
        .addOnCompleteListener(LoginActivity.this, (task) -> {
            if (task.isSuccessful()) {
                // Sign in success, update UI with the signed-in user's information
                progressDialog.dismiss();
                checkEmailVerification();
                finish();
            } else {
                // If sign in fails, display a message to the user.
                progressDialog.dismiss();
                Toast.makeText(LoginActivity.this, "Authentication failed.", Toast.LENGTH_SHORT).show();
            }
        }).addOnFailureListener((e) -> {
            progressDialog.dismiss();
            Toast.makeText(LoginActivity.this, e.getMessage(), Toast.LENGTH_SHORT).show();
        });
}

```

4.11 Code 3 - Add Post activity module



The screenshot shows the Android Studio interface with the project 'BusinessAdda' open. The code editor displays the `AddPostActivity.java` file. The code handles image selection and upload, setting up an `AlertDialog` for title and description input, and updating the database with the new post details.

```
imageIV.setOnClickListener((view) -> showImagePicDialog());  
  
uploadBtn.setOnClickListener((view) -> {  
    String title=titleET.getText().toString().trim();  
    String description=descriptionET.getText().toString().trim();  
    if (TextUtils.isEmpty(title)){  
        Toast.makeText(context, "Enter Title...", Toast.LENGTH_SHORT).show();  
        return;  
    }  
    if (TextUtils.isEmpty(description)){  
        Toast.makeText(context, "Enter Description...", Toast.LENGTH_SHORT).show();  
        return;  
    }  
    if (isUpdateKey.equals("editPost")){  
        actionBar.setTitle("Update Image");  
        beginUpdate(title,description,editPostId);  
    }else {  
        uploadData(title,description);  
    }  
});  
  
private void handleSendImage(Intent intent) {  
    Uri imageURI = intent.getStringExtra(Intent.EXTRA_STREAM);  
    AddPostActivity.this.checkSelfPermission();  
}
```

5 Test Cases

Table 6.1: Test Case - Login and Register

Test Case ID	Test Case Name	Test Data	Expected Output	Actual Output	Result
1	User enter user id and password	Enters the correct user id and password	Log in Successful	Home Page	Pass
2	User enter user id and password	Enters the incorrect user id and password	Prompt error	Prompt error	Pass
3	User enter user id and password	Valid user id and password which doesn't exist in Database	Registered Successfully	Login Page	Pass
4	User enter user id and password	Invalid user id and password which contains in Database	Prompt error	Prompt error	Pass

Table 6.2: Test Case - Others

Test Case ID	Test Case Name	Test Data	Expected Output	Actual Output	Result
1	User clicks on the message send button	User clicks on the message send button after typing message	Message sent	Message sent	Pass
2	User clicks on the message send button	User clicks on the message send button without typing message	Prompt Message showing error	Prompt Message showing error	Pass

6 Limitations

- It needs internet to be accessed.
- It does not have a payment module.
- User can't post videos.
- User can't share videos in chat.
- It does not have a google maps integration to show location of other users.

7 Future Enhancements

- Feature of sharing short videos.
- Google maps integration to show location of users shop.
- Feature of sharing videos in chat and group chat.
- Payment gateway integration for online transaction.

8 User Manual

Part 1 – Register

Upon opening the application, user will be directed to the login screen. If the user has no account, user can click on register and register self.

After verification of user email id, User's account will be saved in our database. The user can now proceed to login.

Part 2 – Login

User needs to enter email first and then password. If there is an active internet connection, user can proceed to login.

User can use the google account to login directly without registration.

Part 3 – Profile

User can access/add/update personal details (eg. profile picture, cover photo, business name, phone no.). User can update this details anytime.

Part 4 – Home

User can add post, see other users posts on the home screen.

User can like, comment and share the post.

Part 5 – Chats

User can chat with other users.

User can see the status(online/offline) of users.

User can check the last seen of the other users.

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