SRI LANKA INSTITUTE OF ADVANCED TECHNOLOGICAL EDUCATION

Kurunagala

HIGHER NATIONAL DIPLOMA IN INFORMATION TECHNOLOGY

THE PROJECT REPORT

“YUM YUM APP” Mobile Application

By

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Declaration

I hereby declare that all the work reported in this project report submitted as "Yum Yum APP mobile application report" has been done by myself and has not been plagiarized or copied from any external sources.

I created this project under the supervision of Ms. L.A.M.W.I. Samarasekara of the Department of Information Technology, Advanced Technological Institute, Kurunegala, Sri Lanka

This report describes the results of my own independent work, except where properly mentioned in the text. No previous or concurrent part of this project report was for any other degree or diploma at the university or any other tertiary education institution. Information taken from the published or unpublished. The works of other people are acknowledged in the text, and a list of references is given.

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Abstract

This app helps people discover new dishes and connects with a community of food lovers.

With our app, you can browse curated lists of popular restaurants, search for specific dishes or cuisines, and get personalized recommendations from other users.

You can also create and share your own food posts with recipes and restaurant recommendations, and even book restaurant reservations.

Our app makes it easy for you to pay for your food online and avoid the hassle of waiting in line or dealing with cash.

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Chapter 1

1.1 Introduction

1.1.1 Description of the Business Organization and Chosen Business Area

This is a food-focused social media app that offers a single location for foodies who want to connect with other foodies, share ideas, develop new food recipes, compile their own list of food recipes, post, exchange experiences with others, and learn about new dishes.

1.1.2 Business process

With this app, you can look through carefully curated lists of well-liked restaurants, look for dishes or cuisines, and get tailored suggestions from other users. Additionally, you can publish your own recipes, suggest restaurants, and even make reservations for restaurants. You can easily pay for your food online with our app and avoid the hassle of standing in line or handling cash.

1.1.3 Problem definition

We know how valuable your time is, so we want to make it as simple as possible for you to find the top eateries, recipes, and culinary experiences.

1.1.4 Literature review

In today's digital age, food-focused social media apps like "Yum Yum" have become prominent, reflecting the fusion of culinary interests with technology. These apps cater to the growing foodie culture, providing a platform for enthusiasts to connect, share, and explore the world of gastronomy. Central to these platforms is the concept of user-generated content, where users share their culinary creations, restaurant reviews, and food adventures. This fosters trust and authenticity within the community, as users rely on peer recommendations.

Personalization is a key feature, with algorithms offering tailored food suggestions based on user preferences, enhancing the user experience. "Yum Yum" also stands out for its inclusive approach, celebrating diverse cuisines and cooking traditions from around the globe, promoting cultural understanding through food. Furthermore, the app simplifies the food experience by integrating features such as restaurant reservations and online payments. As food culture evolves, "Yum Yum" and similar apps play a pivotal role in shaping how people connect, appreciate, and engage with food in the digital age.

1.1.5 Aims and Objectives

Encourage the development of a community of foodies where they can interact, connect, and share their love of food. We want to create a friendly atmosphere that inspires users to participate in conversations, share knowledge, and establish deep connections.

Allow users to easily share their own recipes, complete with thorough directions and alluring images, while also giving them access to a huge database of varied recipes from many different cuisines. We want to support a vibrant ecosystem for recipe sharing that encourages experimentation and creativity in the kitchen.

By giving users access to curated lists of well-liked eateries and a platform where they can post their own recommendations and reviews, you can encourage users to try out new dining experiences. We want to help users make educated decisions about their dining preferences by supporting openness and authenticity.

Design a simple and user-friendly app interface that makes it easier to find recipes, connect with other users, book reservations at restaurants, and make online payments. Our goal is to improve convenience and streamline the user experience for everyone involved in the food process.

Provide individualized advice based on users' dietary needs, food preferences, and previous app interactions. We work to deliver specialized recommendations that are in line with unique tastes and interests by utilizing user data.

Embrace and celebrate the rich diversity of cuisines and culinary traditions from around the world. Our objective is to create an inclusive platform that appreciates and showcases the multitude of flavors, techniques, and cultural significance associated with food.

1.1.6 Scope with clear boundaries

The scope of the "Yum Yum" food app is well-defined, ensuring clarity in its objectives and limitations. It encompasses the following key aspects:

1. Core Features:
    - User Profiles: Users can create profiles, providing information such as their culinary interests, favorite cuisines, and food preferences.
    - Recipe Sharing: Users can post their own recipes, complete with ingredients, instructions, and images.
    - Restaurant Reviews: Users can review and rate restaurants, sharing their dining experiences.
    - Food Discovery: Users can explore a diverse database of recipes, curated lists of popular restaurants, and trending dishes.
    - Personalization: The app utilizes user data to offer personalized recipe and restaurant recommendations.
    - Social Interaction: Users can connect with each other, follow fellow foodies, and engage in discussions about food.

- Reservation and Payment: The app facilitates restaurant reservations and online payments for added convenience.

2. Platform Limitations:

- "Yum Yum" will be available as a mobile application for iOS and Android platforms, with no immediate plans for a web-based version.
- The app's primary language will be English, with the potential for future language expansions based on user demand.
- The initial launch will target specific regions or countries, with gradual expansion over time.

3. Data Privacy and Security:
    - The app will adhere to strict data privacy regulations, ensuring user information is safeguarded and not shared without consent.
    - Security measures will be implemented to protect user data, including encryption and secure payment processing.

4. Monetization: The primary revenue stream will be through advertisements and sponsored content. Additional revenue may be generated through premium features, such as ad-free browsing or enhanced recipe management, offered through in-app purchases or a subscription model.

5. Future Enhancements: While the initial scope is defined, "Yum Yum" acknowledges the need for continuous improvement and user feedback incorporation. Future updates may include additional features, expanded language support, and broader geographical reach based on user demand and market analysis.

1.1.7 Organization of the dissertation

The dissertation is thoughtfully organized to provide a structured and coherent exploration of the "Yum Yum" food app. Each section serves a distinct purpose, contributing to a comprehensive understanding of the app's development and significance in the food-focused social media landscape. Beginning with an introductory chapter that sets the stage, the subsequent sections delve into relevant literature, methodology, and the app's development and design. The core features and functionality of "Yum Yum" are explored in detail, followed by an analysis of user experience and feedback. The dissertation concludes by discussing future directions for the app. This organized framework ensures that readers gain a holistic insight into the app's evolution, user engagement, and potential for growth, while facilitating a structured and informative narrative.

Chapter 2

2.1 Problem Definition and System Analysis

2.1.1 Problem Definition

The current process of the food system and traditional food system have several limitations that make it difficult for food lovers to find recipes. The traditional process of finding recipes typically involves searching through cookbooks or relying on family recipes, which can be time-consuming and limited in scope. Meanwhile, the current process of searching for recipes online can be overwhelming due to the sheer volume of options available. Additionally, the quality and reliability of recipes online can be questionable, leading to inconsistent results and wasted time and resources. These limitations can be frustrating for food lovers who are passionate about discovering new recipes and techniques. However, with the rise of food apps, there is hope for a more efficient and user-friendly way of finding recipes. By providing curated lists of recipes, personalized recommendations, and a community of like-minded food lovers, food apps can simplify the process of discovering new dishes and help users make the most of their time in the kitchen.

2.1.2 Identify Stakeholders

- Users: The primary stakeholders are the users of the app. These are individuals who download, use, and engage with "Yum Yum." Their feedback, satisfaction, and engagement are critical to the app's success.

- Developers and Designers: The team responsible for building and designing the app are stakeholders. They are concerned with the technical aspects, user interface, and ensuring the app functions smoothly.

- App Owners/Entrepreneurs: The individuals or entities who own and operate the "Yum Yum" app have a significant stake in its success, both financially and in terms of reputation.

- Advertisers and Sponsors: If the app includes advertisements or sponsored content, these businesses or entities are stakeholders. They rely on the app to reach their target audience effectively.

- Restaurant Owners: Restaurants listed on the app, especially those featured in curated lists or reviews, have an interest in how the app represents their establishments and the user reviews they receive.

- Food Bloggers and Influencers: Food bloggers and influencers who use the app to share their content and engage with their followers are stakeholders. Their presence can significantly impact the app's user base.

- Regulatory Authorities: Depending on the app's geographic reach, regulatory bodies may have an interest in ensuring that it complies with local laws and regulations, particularly regarding data privacy and payments. Investors and

- Financial Backers: Individuals or organizations that have invested in the app financially are stakeholders. They have a vested interest in the app's profitability and growth. Competitors: Other food-related apps in the market are stakeholders, albeit indirectly. They are interested in monitoring "Yum Yum's" features and strategies as they compete for users' attention.

- Food Suppliers: Suppliers of ingredients and products featured in recipes may also be stakeholders if the app influences consumer choices and trends.

- User Communities: Any user communities or forums related to the app can be considered stakeholders. These communities may have an impact on user discussions and the app's reputation.

- Local Communities: Depending on the app's reach, local communities where users and restaurants are based can be stakeholders, as the app may influence dining choices and community engagement.

- Media and Food Critics: Food critics, food-related media outlets, and food journalists have an interest in reviewing and reporting on the app's impact on culinary culture.

2.1.3 Investigate the Problem

Investigating the problem at the heart of the "Yum Yum" food app is crucial to understanding the motivations and challenges driving its development. One fundamental problem addressed by the app is the fragmentation of culinary information and experiences across various online platforms. In today's digital age, food enthusiasts are inundated with information from multiple sources, including social media, recipe websites, and restaurant review platforms. This dispersed landscape makes it challenging for users to find a centralized, reliable, and user-friendly hub for their culinary needs.

Additionally, the app seeks to address the problem of trust and authenticity in the world of food recommendations. With an abundance of user-generated content and reviews, users often struggle to distinguish between credible culinary advice and biased or unreliable information. "Yum Yum" aims to tackle this issue by fostering a community where authentic, peer-driven recommendations and reviews hold value, providing users with a trusted source of culinary guidance.

Lastly, the app addresses the problem of culinary diversity and cultural appreciation. It recognizes the importance of celebrating the multitude of global cuisines and culinary traditions. In a world becoming increasingly interconnected, "Yum Yum" aims to bridge cultural gaps and encourage users to explore and appreciate the rich tapestry of flavors and techniques from around the world. Investigating these problems forms the foundation for the app's development and underscores its role in enhancing the digital food experience.

2.1.4 Specify Requirements

Functional Requirements:

1. User Registration and Profiles:
    - Users must be able to create accounts with unique usernames and passwords.
    - Users can fill out profiles with personal information and culinary preferences.

2. Recipe Posting and Viewing:
    - Users can post recipes, including ingredients, step-by-step instructions, and images.
    - Recipes should be categorizable by cuisine, dietary preferences, and difficulty level.
    - Users can browse and search for recipes based on various criteria.

3. Restaurant Reviews and Recommendations:
    - Users can leave reviews and ratings for restaurants.
    - The app provides recommendations for restaurants based on user preferences and location.

4. Social Interaction:
    - Users can follow other users and be followed back.
    - Users can like, comment on, and share recipes, restaurant reviews, and other content.
    - Private messaging functionality for user-to-user communication.

5. Personalization:
    - The app utilizes user data to offer personalized content recommendations.
    - Personalized recipe suggestions based on user preferences and past interactions.
6. Reservation and Payment Integration:
    - Users can make restaurant reservations through the app.
    - Integration with payment gateways to allow for online payments.

7. Search and Discovery:
    - Robust search functionality to find recipes, restaurants, and other users.
    - Curated lists of popular recipes, restaurants, and trending dishes.

Non-Functional Requirements:

1. User Interface and Design:
    - The app should have an intuitive and visually appealing user interface.
    - Responsive design for both mobile and tablet devices.

2. Performance:

- Fast loading times for recipes, images, and restaurant information.
- Scalability to handle a growing user base and content database.

3. Security:
    - Robust data encryption to protect user information and payment data.
    - Regular security audits and updates to address vulnerabilities.

4. Data Privacy:
    - Compliance with data privacy regulations (e.g., GDPR) and transparent privacy policies.
    - Users should have control over their data and privacy settings.

5. Community Guidelines and Moderation:
    - Implement community guidelines to ensure respectful and appropriate user interactions.
    - Moderation system to identify and remove inappropriate content and spam.

6. Accessibility:
    - Ensure the app is accessible to users with disabilities, adhering to WCAG guidelines.

7. Scalability and Maintenance:
    - Scalability to handle increasing user activity and content.
    - Regular maintenance and updates to fix bugs and improve performance.

8. Backup and Recovery:
    - Regular data backups and a disaster recovery plan to prevent data loss.

9. Cross-Platform Compatibility:
    - Compatibility with both iOS and Android platforms.

These requirements are essential for the successful development and deployment of the "Yum Yum" food app, ensuring it meets user needs, performs efficiently, and maintains high standards of security and usability.

2.1.5 Feasibility Study

1. Technical Feasibility:

- **App Development**: Evaluate the technical expertise and resources needed to develop and maintain the app, considering the required platforms (iOS and Android) and technology stack.
- **Data Security**: Assess the technical capabilities required to ensure data security, user privacy, and secure payment processing.
- **Scalability**: Determine if the app's infrastructure can handle increasing user numbers and content as the user base grows.

2. Economic Feasibility:
    - **Cost Estimation**: Calculate the development, maintenance, marketing, and operational costs.
    - **Revenue Model**: Identify potential revenue streams, such as advertisements, sponsored content, and premium features.
    - **Break-Even Analysis**: Determine the point at which the app's revenue covers its expenses.

3. Operational Feasibility:
    - **Resource Availability**: Assess the availability of human resources, skills, and technology infrastructure required to run the app.
    - **User Engagement:** Evaluate the app's ability to attract and retain users, considering the competitive landscape.
    - **Legal and Regulatory Compliance:** Ensure compliance with data privacy regulations, copyright laws, and industry standards.

4. Scheduling Feasibility:
    - **Timeline:** Create a detailed project timeline, including development, testing, and launch phases.
    - **Milestones:** Define key milestones and deadlines to monitor progress.

5. Legal and Regulatory Feasibility:
    - **Data Privacy:** Ensure compliance with data protection regulations like GDPR or CCPA, safeguarding user data and privacy.
    - **Payment Processing:** Address legal requirements related to online payment processing and financial transactions.
    - **Content Copyright:** Establish guidelines for user-generated content to avoid copyright infringement issues.

6. Risk Analysis:
    - Identify potential risks and challenges, such as technical glitches, market competition, and changing user preferences.
    - Develop risk mitigation strategies and contingency plans to address unforeseen obstacles.

7. Market Research:
    - Conduct market research to understand user preferences, demographics, and the competitive landscape.

- Analyze market trends and user behavior to refine the app's features and offerings.

8. Marketing and Promotion:
    - Develop a marketing plan to promote the app and attract an initial user base.
    - Consider marketing channels, branding strategies, and user acquisition tactics.

9. Cost-Benefit Analysis:
- Perform a comprehensive cost-benefit analysis to assess the project's potential return on investment (ROI).

10. Recommendation:
- Summarize the findings and provide a recommendation on whether to proceed with the development of the "Yum Yum" food app based on the feasibility study results.

A thorough feasibility study will provide valuable insights into the project's viability, risks, and potential rewards, helping stakeholders make informed decisions about proceeding with the app's development.

Chapter 3

3.1 System Design

3.1.1 User interface design

The "Yum Yum" app's user interface (UI) boasts an intuitive design, featuring a user-friendly navigation system for easy recipe and restaurant discovery. The home screen offers personalized content, enriched with enticing visuals, while maintaining a clean and visually appealing layout for seamless user interactions and enjoyable culinary exploration.

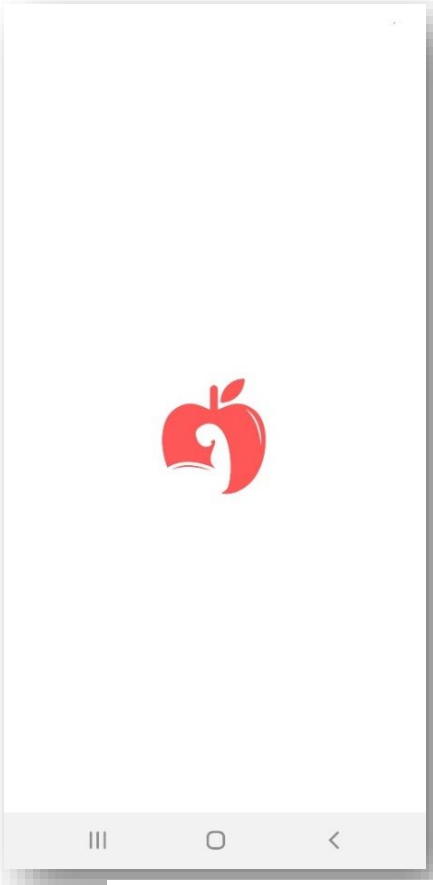

Figure 1: App Icon

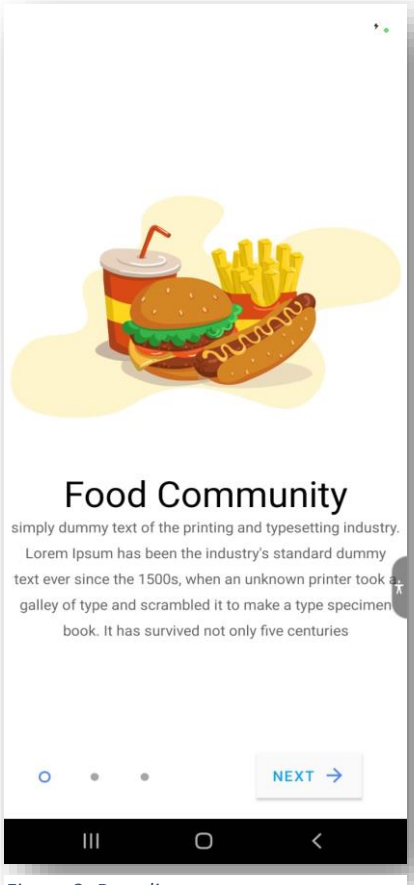

Figure 2: Boarding screen

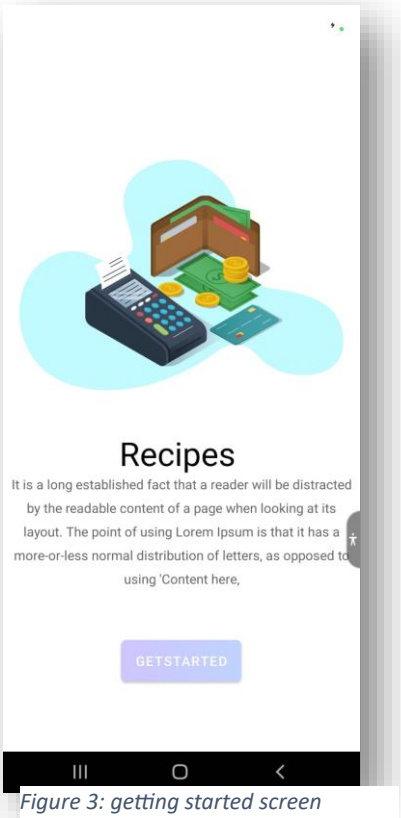

Figure 3: getting started screen

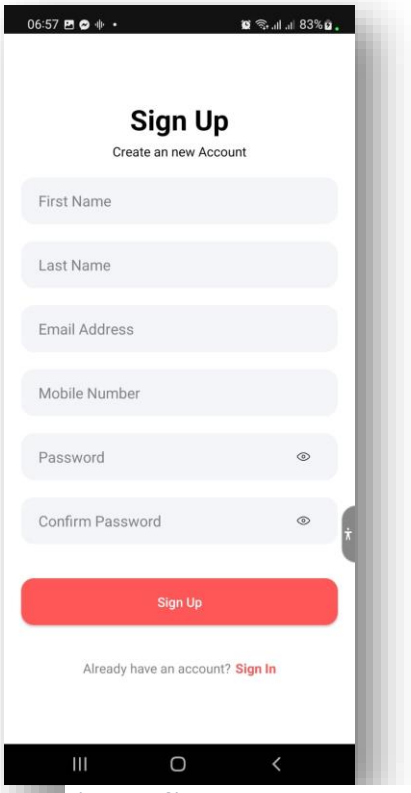

Figure 4: Sign up

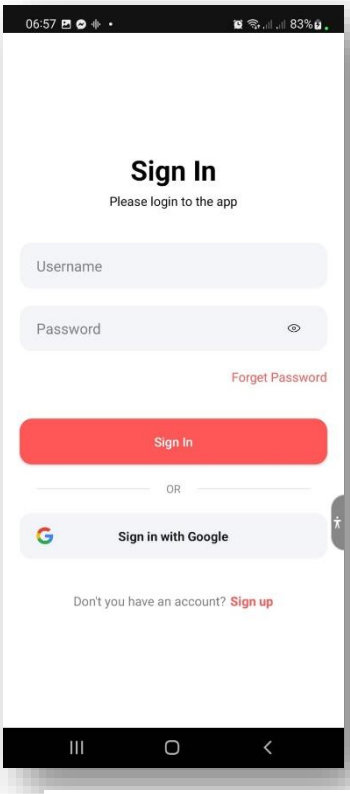

Figure 5: Sign in

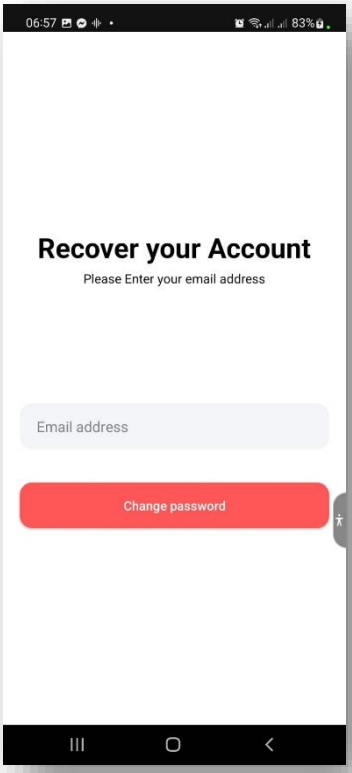

Figure 6: Password reset screen

Figure 7: Timeline screen

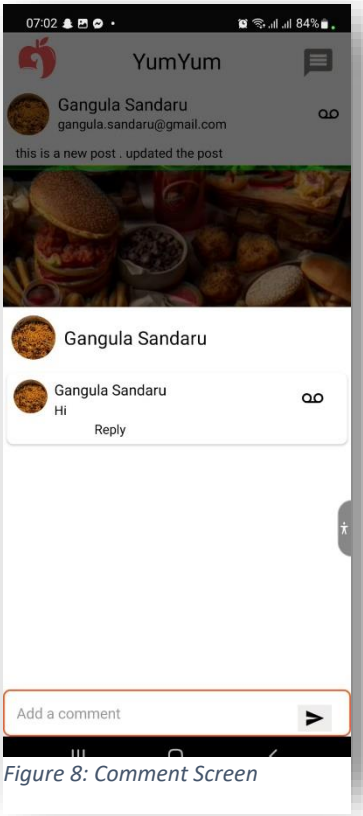

Figure 8: Comment Screen

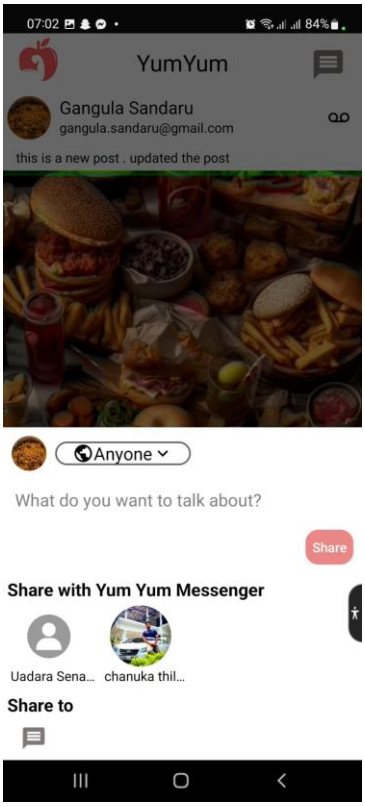

Figure 9: Sharing screen

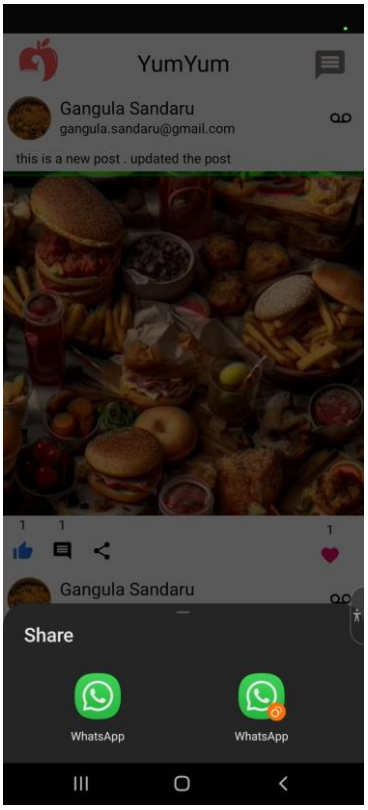

Figure 10: Share to the WhatsApp

Figure 11: User Search Screen

Figure 12: Posting Screen

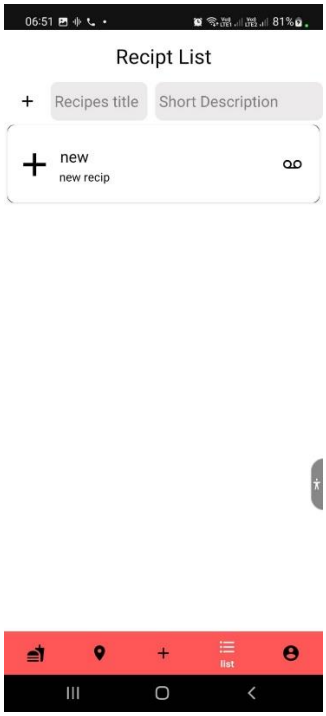

Figure 13: Recipe screen

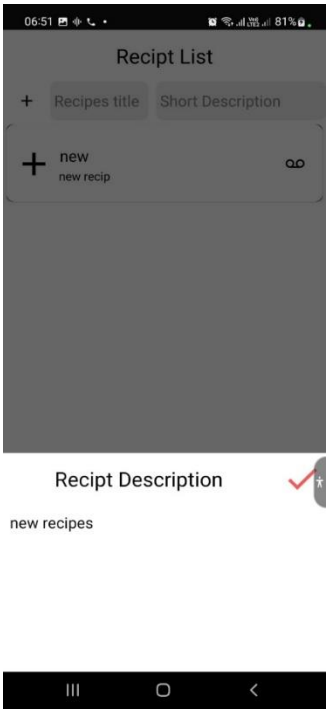

Figure 14: Recipe edit screen

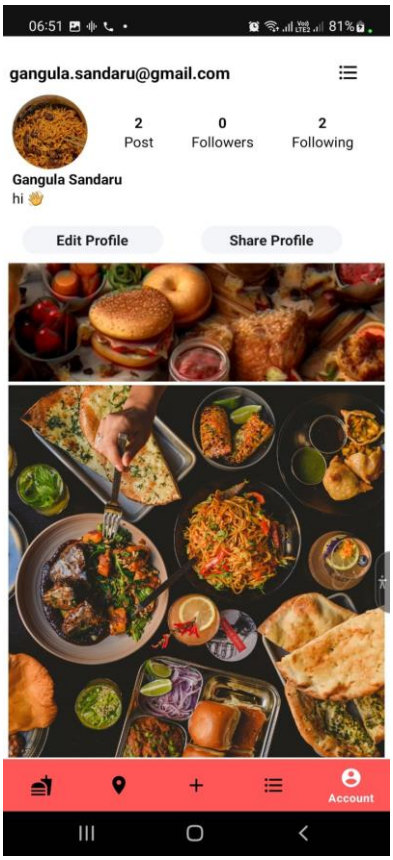

Figure 15: Profile screen

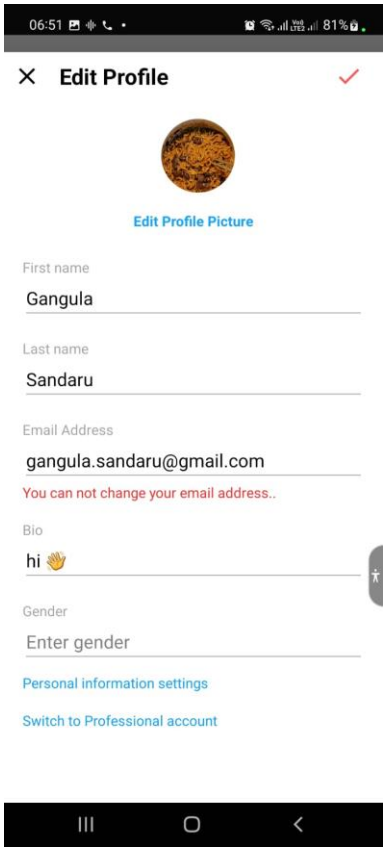

Figure 16: Edit Profile screen

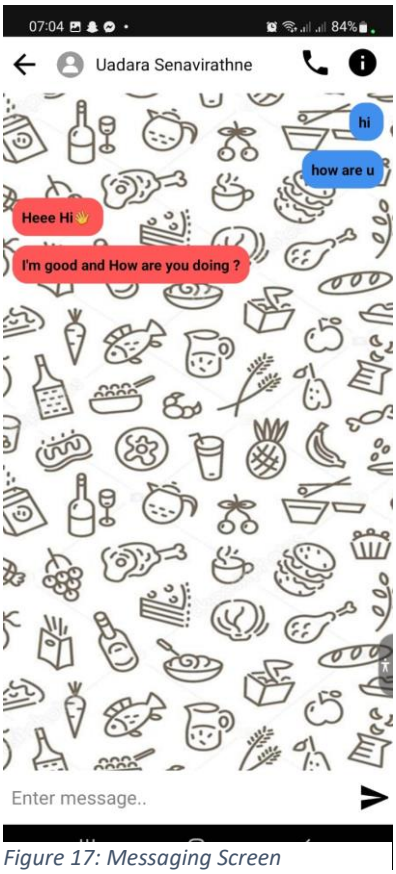

Figure 17: Messaging Screen

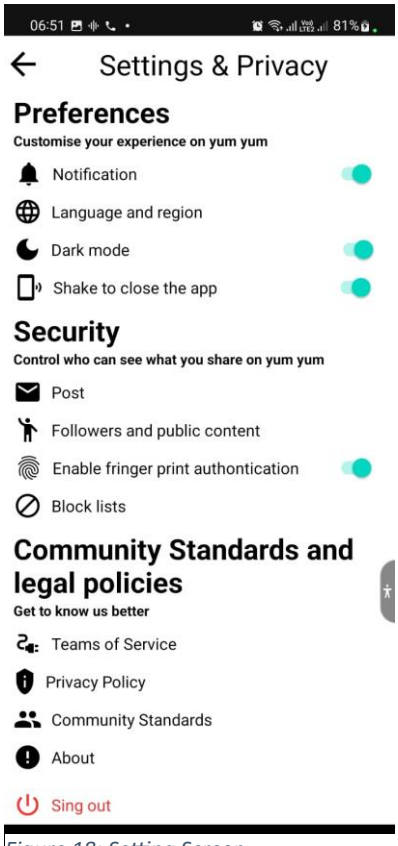

Figure 18: Setting Screen

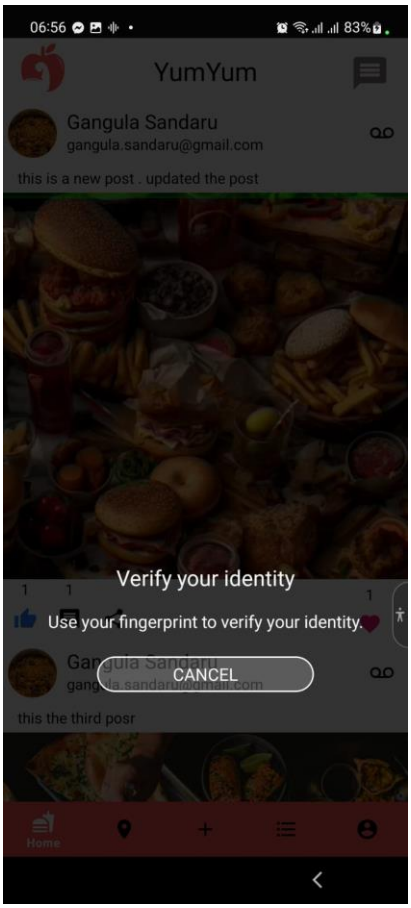

Figure 19: Finger print verification screen

3.1.2 System data model

The system data model for the "Yum Yum" food app provides a structured framework for organizing and managing data within the application.

1. **Users:** The user data model encompasses user profiles, which include essential details such as usernames, passwords, email addresses, culinary preferences, and profile pictures. It also tracks the relationships between users through the "followers" and "following" connections, facilitating the app's social aspect. User activities are logged, recording interactions such as likes, comments, and the creation of recipe or restaurant posts.

2. **Recipes:** The recipe data model stores comprehensive recipe details, including names, ingredients, preparation instructions, images, cuisine types, difficulty levels, and user-generated ratings. Recipes are categorized for easy access based on criteria like meal type or dietary preferences. Users can post their own recipes, linking them to their profiles.

3. **Restaurants:** Information about restaurants, including names, locations, descriptions, images, ratings, and user reviews, is organized within the restaurant data model. Restaurants can be categorized based on cuisine type or specialties. Users can recommend restaurants and provide ratings.

4. **Personalization:** The personalization component encompasses user preferences, enabling the system to offer personalized content recommendations. The recommendation engine utilizes user data to suggest recipes and restaurants tailored to individual tastes and past interactions.

5. **Interactions:** The interactions data model tracks user engagement with the app, including likes and comments on recipes, restaurants, and interactions with other users. Additionally, it facilitates private messaging between users for direct communication.

6. **Authentication and Security:** The system includes authentication mechanisms to verify user identities and safeguard user data. This includes ensuring secure storage of passwords and complying with data privacy regulations.

Overall, the system data model forms the backbone of the "Yum Yum" app, allowing for efficient data management, personalized user experiences, and seamless interactions within the food-centric social community.

3.1.3 ER diagram

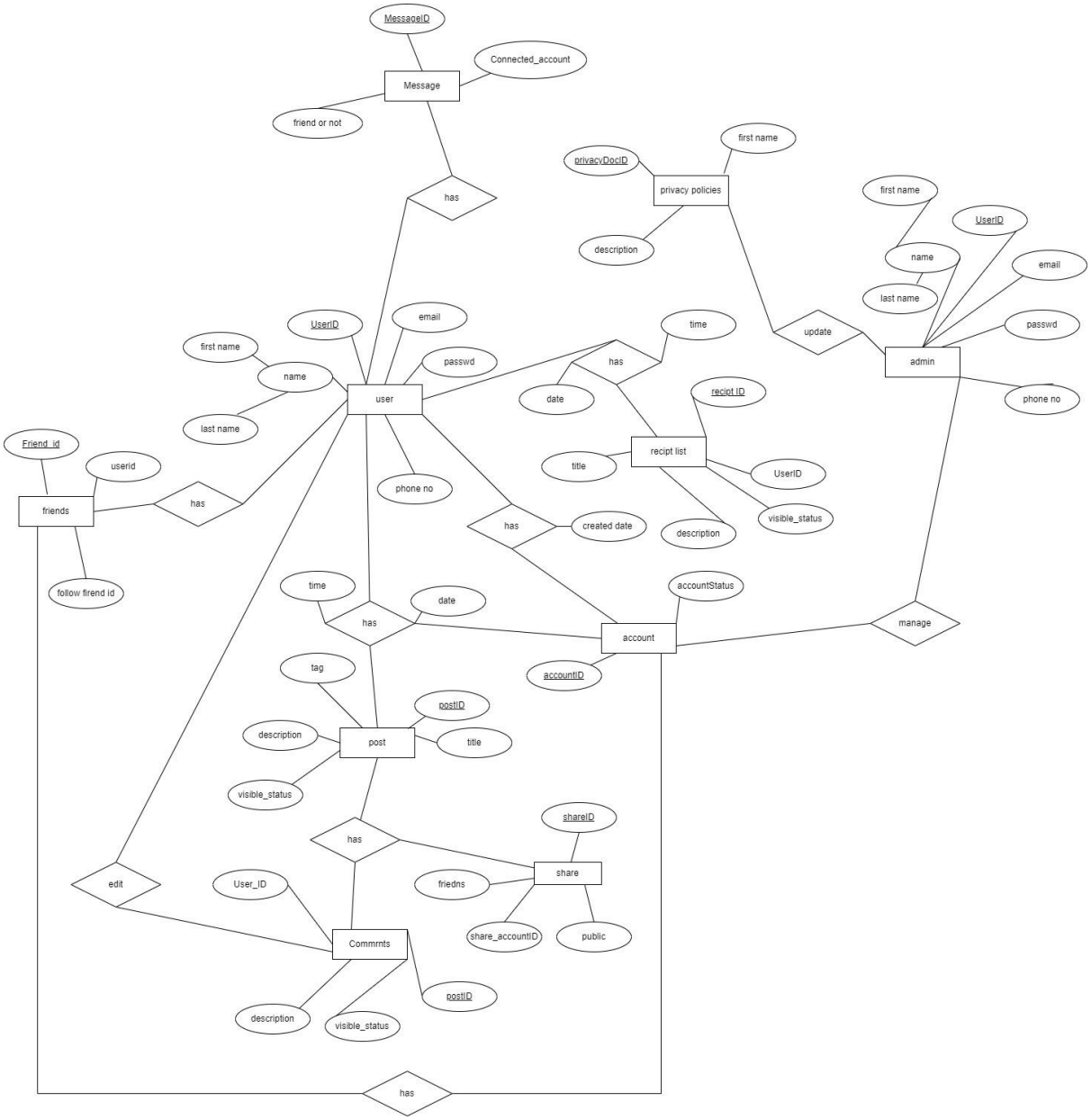

Figure 20: ER diagram

3.1.4 Use case diagram

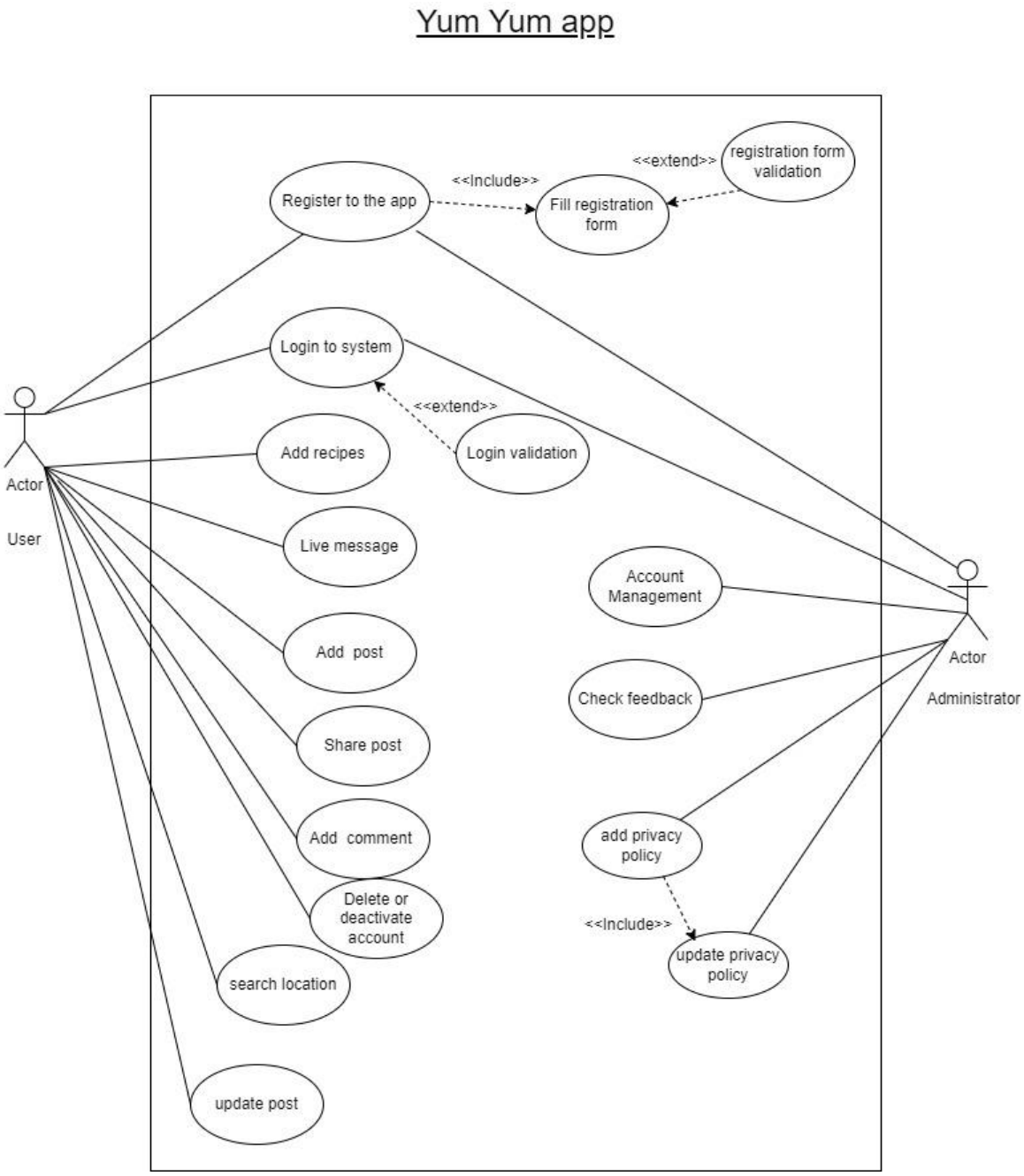

Figure 21: Use case diagram

3.1.5 Low level Wireframe design

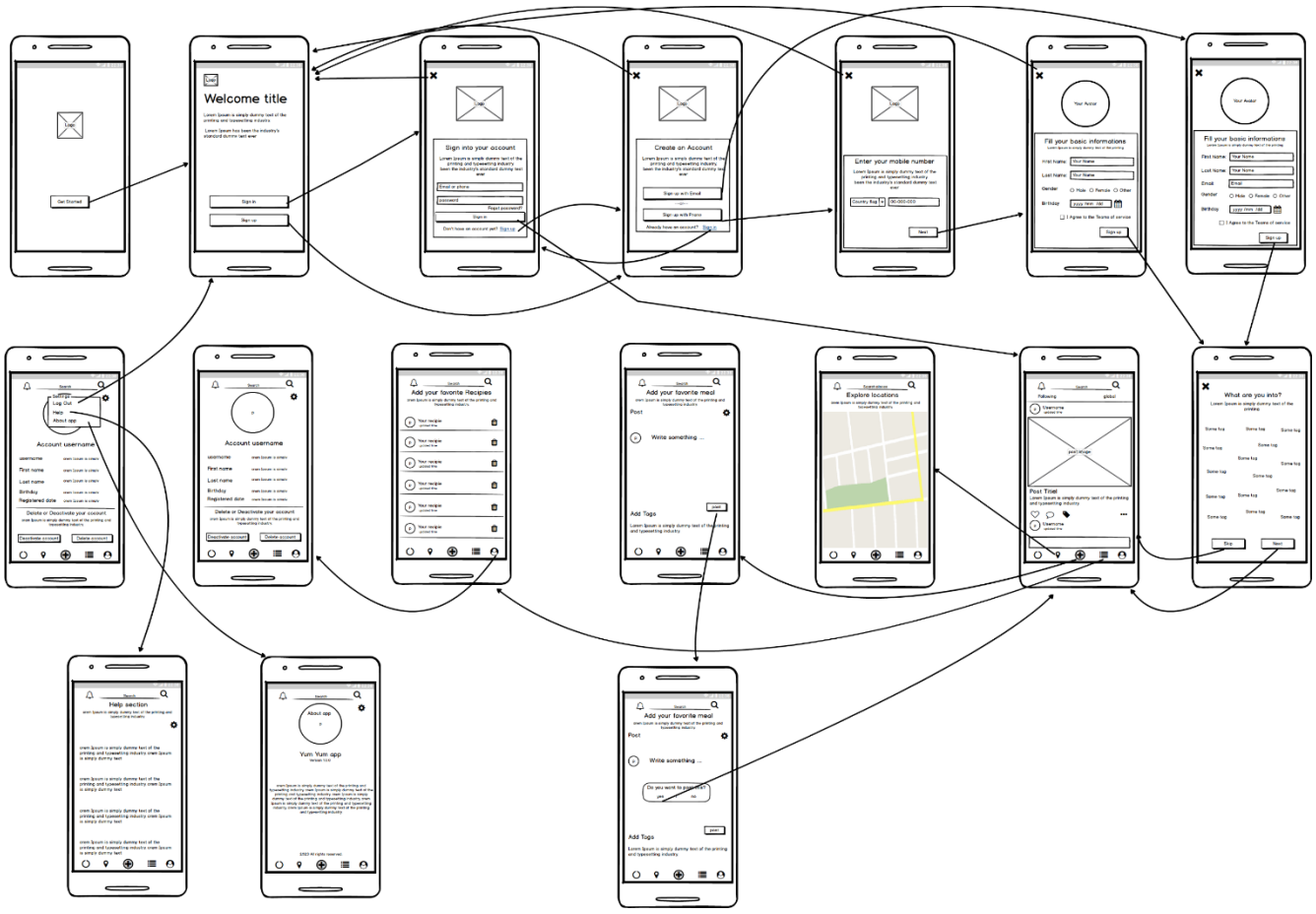

Figure 22: Low level Wireframe design

Chapter 4

4.1 Development, Testing and Implementation

4.1.1 Development

"YUM YUM" mobile application requires following a systematic software development process.

4.1.1.1 Front-end and Back-end Technologies

Front-end (Mobile App):

- Java: Java is the primary programming languages for Android app development.
- Android Studio: Android Studio is the official integrated development environment (IDE) for Android app development. It provides tools for designing, coding, testing, and debugging Android apps.
- XML: XML (eXtensible Markup Language) is used for designing the user interface layout of Android app screens.
- Android SDK (Software Development Kit): The Android SDK provides libraries, tools, and resources for building Android applications.
- UI/UX Design: Tools like Adobe XD or Sketch may be used for designing the user interface and user experience of your app.

Back-end (Server-Side):

- Server-Side Language: You may have used server-side programming languages like Java, and APIs for your app.
- Database: You likely used a database system to store user data, recipes, restaurant information, and other app-related data using Firebase.
- Web Services/APIs: Your app may communicate with external web services or APIs to fetch data such as restaurant information, user recommendations, or payment processing.
- Hosting: You need a server or cloud hosting service to deploy and host your back-end application like Play Store.

- Security: Implement security measures, such as encryption for data transmission and authentication mechanisms, to protect user data and ensure secure interactions with your app.

- Version Control: Version control systems like Git may be used to manage and track changes in your app's codebase.

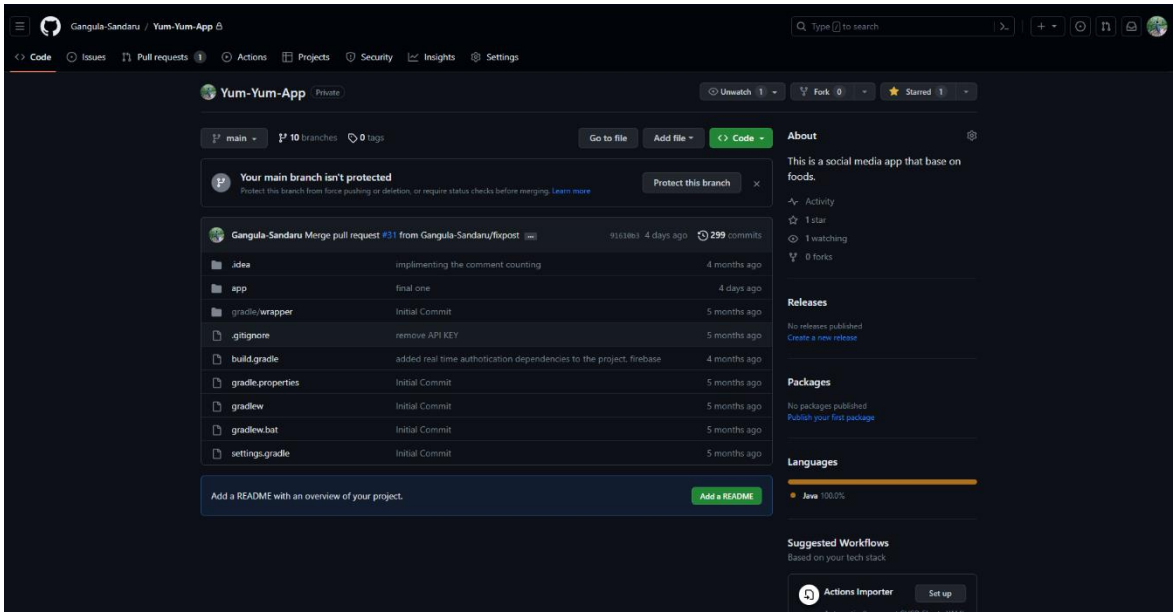

Figure 23: Git hub Repository

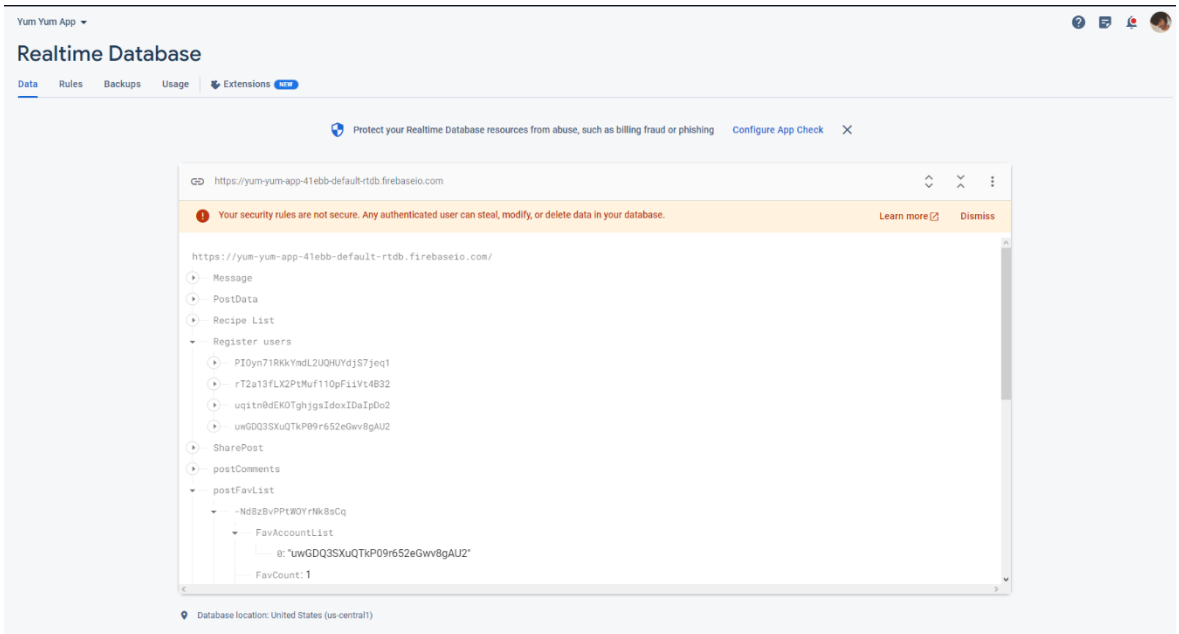

Figure 24: Firebase

4.1.2 Testing

The Android app for search food was thoroughly tested to ensure its dependability and functionality. Unit testing was done to make sure that each component and functionality was accurate. Integration testing was done to evaluate the interactions between different components and ensure a seamless integration. During user acceptance testing, actual users evaluated the application's usability, functionality, and overall user experience. Based on the comments received during the testing phase, adjustments and improvements were made to address any problems or potential improvement areas. Through an iterative process of testing, user feedback, and improvement, the functionality, dependability, and user satisfaction of the Yum yum app were all enhanced.

4.1.2.1 TestCase

Test Case Name/ID - Delta-3.0- Register

Test Case Type - Functional Test Case

Requirement Number - 01

Module - Register

Severity - Critical

Status - Pass/fail

Release - Delta

Version - 1

Pre-condition – Connect to the Internet

Test data – Frist Name – Gangula, Last Name - Sandaru, Email - gangula@gmail.com, Contact No- 0772635987, Password – 123456789, Confirm Password -123456789

Summary - To check functionality of yum yum registration

Author – S.D.G.S Dinusantha.

Reviewed By – Y.M.U.J Senevirathne

Tested By – W.S.D.Weerasekara.

Date - 12/07/2023

Step No	Description	Input	Expected Results	Actual Result	Status	Comments
01	Open the yum yum app		Open the app and go to login screen	As expected	Pass	No
02	Click on sign-up		Open the sign-up screen	As expected	Pass	No
03	Filling the form	First name, Last name, Email, Password, Confirm password.	If registration is success then go to the login screen, if not show validation errors.	As expected	Pass	No

Test Case Name/ID - Delta-3.0- Register

Test Case Type - Functional Test Case

Requirement Number - 01

Module - Login

Severity - Critical

Status - Pass/fail

Release - Delta

Version - 1

Pre-condition – Registered account

Test data – Email – gangula@gmail.com password - 123456789

Summary - To check functionality of yum yum login

Author – S.D.G.S Dinusantha.

Reviewed By – Y.M.U.J Senevirathne

Tested By – W.S.D.Weerasekara.

Date - 12/07/2023

Step No	Description	Input	Expected Results	Actual Result	Status	Comments
01	Open the yum yum app		Open the app and go to login screen	As expected	Pass	No
02	Fill the login form	Email, Password.	Open email verification pop up.	As expected	Pass	No
03	Go the the email and verify the mail address.		If email is verified then come back to login screen.	As expected	Pass	No
04	Press login		Go to the time line and show the available post	As expected	Pass	No

Test Case Name/ID - Delta-3.0- Register

Test Case Type - Functional Test Case

Requirement Number - 01

Module – Post add

Severity - Critical

Status - Pass/fail

Release - Delta

Version - 1

Pre-condition – Login to the app

Test data – Description – this is the first post, image – image data.

Summary - To check functionality of yum yum Post adding

Author – S.D.G.S Dinusantha.

Reviewed By – Y.M.U.J Senevirathne

Tested By – W.S.D.Weerasekara.

Date - 12/07/2023

Step No	Description	Input	Expected Results	Actual Result	Status	Comments
01	Press the add icon on the screen and go to the add screen		Show post screen	As expected	Pass	No
02	Fill the post form	Description, Privacy, Image	Show success message and got to the time line.	As expected	Pass	No
03	Go back to the time line		Show newly added post in the timeline.	As expected	Pass	No

Test Case Name/ID - Delta-3.0- Register

Test Case Type - Functional Test Case

Requirement Number - 01

Module – Experimental recipe adding.

Severity - Critical

Status - Pass/fail

Release - Delta

Version - 1

Pre-condition – Login to the app

Test data – Tittle – chicken recipe, short description – chicken rusted. Description – list of the ingredients.

Summary - To check functionality of yum yum Experimental recipe adding.

Author – S.D.G.S Dinusantha.

Reviewed By – Y.M.U.J Senevirathne

Tested By – W.S.D.Weerasekara.

Date - 12/07/2023

Step No	Description	Input	Expected Results	Actual Result	Status	Comments
01	Press the list icon on the screen and go to the list screen		Show list screen	As expected	Pass	No
02	Fill the list form and press add button	Title, Short description.	Show Pop up message to make sure that the recipe needs to add if press okay then add to the	As expected	Pass	No

			new recipe list.			
03	Show the newly added recipe in the recipe list.		Auto refresh the screen and showing the added list.	As expected	Pass	No
04	Press on the list that added newly, which open up a bottom sheet view.		Pop up the bottom sheet view.	As expected	Pass	No
05	Able to add new contents.	Description.	Add new description to the list .	As expected	Pass	No
06	Press save button		Save the list and close the pop up window.	As expected	Pass	No

Test Case Name/ID - Delta-3.0- Register

Test Case Type - Functional Test Case

Requirement Number - 01

Module –Edit profile.

Severity - Critical

Status - Pass/fail

Release - Delta

Version - 1

Pre-condition – Login to the app

Test data – New fist name - sandaru, New last name – dilmin , gender - male, bio – Hi this is the my bio.

Summary - To check functionality of yum yum Edit profile.

Author – S.D.G.S Dinusantha.

Reviewed By – Y.M.U.J Senevirathne

Tested By – W.S.D.Weerasekara.

Date - 12/07/2023

Step No	Description	Input	Expected Results	Actual Result	Status	Comments
01	Press the profile icon on the screen and go to the profile screen		Show profile screen	As expected	Pass	No
02	Click on the edit profile		Show edit profile bottom sheet view.	As expected	Pass	No
03	Fill the edit profile form as needed.	First name, Last name, Gender, Bio.	Able to fill the information to the bottom sheet view.	As expected	Pass	No
04	Press the save button.		Close the sheet view and show success message to the user.	As expected	Pass	No

Test Case Name/ID - Delta-3.0- Register

Test Case Type - Functional Test Case

Requirement Number - 01

Module – Add profile picture.

Severity - Critical

Status - Pass/fail

Release - Delta

Version - 1

Pre-condition – Login to the app

Test data – image.

Summary - To check functionality of yum yum Add profile picture.

Author – S.D.G.S Dinusantha.

Reviewed By – Y.M.U.J Senevirathne

Tested By – W.S.D.Weerasekara.

Date - 12/07/2023

Step No	Description	Input	Expected Results	Actual Result	Status	Comments
01	Press the profile icon on the screen and go to the profile screen		Show profile screen	As expected	Pass	No
02	Click on the edit profile		Show edit profile bottom sheet view.	As expected	Pass	No
03	Press on change profile text		Pop up the image selection window.	As expected	Pass	No
04	Select the image.	Image	Able to select the image as you want from the image list.	As expected	Pass	No
05	After select the image, there is showing a set image text view.		Showing the set image view in red color.	As expected	Pass	No
06	Image is set to the profile		Image in showing in the profile picture.	As expected	Pass	No

Test Case Name/ID - Delta-3.0- Register

Test Case Type - Functional Test Case

Requirement Number - 01

Module – Post Comment .

Severity - Critical

Status - Pass/fail

Release - Delta

Version - 1

Pre-condition – Post exits.

Test data – Comment – this is thte first commet

Summary - To check functionality of yum yum Add Post Comment.

Author – S.D.G.S Dinusantha.

Reviewed By – Y.M.U.J Senevirathne

Tested By – W.S.D.Weerasekara.

Date - 12/07/2023

Step No	Description	Input	Expected Results	Actual Result	Status	Comments
01	Press the timeline icon on the screen and go to the timeline screen		Show timeline screen	As expected	Pass	No
02	Click on the comment icon		Show comment bottom view sheet.	As expected	Pass	No
03	Enter the comment	comment	Able to enter the comment to the input field.	As expected	Pass	No
04	Press the send icon		Show the newly added comment on the comment list	As expected	Pass	No

4.1.3 Implementation

Gathering requirements, designing, developing, testing, and deploying the Android application for foods were all steps in the implementation process. Challenges were encountered throughout the process, and solutions were used to get past them.

- Challenge: User Authentication and Security

Solution: Firebase Authentication was put into place to guarantee secure user authentication. It offered powerful user management tools, such as account verification and email/password authentication. This assisted in securing app access and safeguarding user data.

- Challenge: Database Management

The backend database for storing and retrieving food data, user data, and reservation information was Firebase Realtime Database. To prevent data duplication and ensure effective data retrieval, the database structure was carefully planned.

- User Interface Design and Usability

Solution: To create a clear and user-friendly interface, Material Design principles were adhered to. To ensure a seamless user experience, careful consideration was given to the navigation, information hierarchy, and visual components. To iteratively improve the design and improve usability, user testing and feedback were included.

- Challenge: Testing and Bug Fixing

Solution: Extensive testing was done at every stage of development. To find and correct bugs, unit tests, integration tests, and user acceptance tests were run.

4.1.4 Future Modifications, Improvements, and Extensions

Future modifications, improvements, and extensions for the "Yum Yum" food app can enhance its functionality, user engagement, and overall value. Here are some potential areas for future development:

1. Enhanced Recommendation Engine:
    - Invest in machine learning algorithms to further refine personalized recipe and restaurant recommendations based on user behavior and preferences.
    - Implement real-time updates to ensure users receive the most relevant suggestions.

2. User-Generated Content Features:
    - Allow users to upload videos along with recipes for a more interactive cooking experience.
    - Introduce a feature for users to create and share cooking tutorials.

3. Social Sharing Integration:
    - Enable users to easily share their favorite recipes, restaurant discoveries, and achievements on external social media platforms, increasing app exposure.

4. Augmented Reality (AR) Integration:
    - Implement AR features that enable users to virtually visualize dishes from recipes before cooking them. Incorporate AR for restaurant discovery, such as viewing restaurant interiors and menus in augmented reality.

5. Gamification Elements:
    - Introduce gamification features like badges, challenges, and rewards to encourage user engagement and recipe experimentation.

6. Advanced Search and Filtering:
    - Enhance search functionality with advanced filters, such as dietary restrictions, cooking time, and ingredient availability.
    - Implement voice search for hands-free recipe browsing.

7. Internationalization and Localization:
    - Expand the app's reach by adding support for multiple languages and adapting content for different regions.
    - Include regional cuisine categories and recommendations.

8. Integration with Smart Appliances:
    - Collaborate with kitchen appliance manufacturers to enable users to control smart ovens, microwaves, and other appliances directly from the app.
    - Implement voice commands for hands-free cooking instructions.

9. Sustainability and Health Features:
    - Incorporate features that promote sustainable cooking practices, such as recipes that reduce food waste and support eco-friendly ingredients.
    - Enhance dietary tracking and nutritional information for health-conscious users.

10. Monetization Strategies:
    - Explore additional revenue streams, such as premium subscriptions offering exclusive features, ad-free browsing, or early access to new recipes.
    - Partner with food brands and restaurants for sponsored content and promotions.

11. Offline Access:
    - Develop an offline mode that allows users to access their favorite recipes and restaurant recommendations without an internet connection.

12. Community Building:
    - Foster a sense of community by introducing forums, live cooking events, and virtual cooking classes.
    - Enable users to organize and participate in local food-related meetups and events.

13. Continuous Bug Fixes and Security Updates:
    - Maintain a rigorous schedule for bug fixes, performance improvements, and security updates to ensure a seamless and secure user experience.

14. Voice Assistant Integration:
    - Integrate with voice assistants like Amazon Alexa or Google Assistant to enable hands-free recipe navigation and cooking instructions.

These future modifications and improvements can keep the "Yum Yum" app at the forefront of the food-focused social media landscape, catering to evolving user needs and technological advancements while providing a delightful culinary experience.

Chapter 5

5.1 Evaluation and Conclusions

The outcome of the food app is to provide an efficient and convenient way for users to discover new dishes, connect with a community of food lovers, and make the most of their culinary journey. By offering a range of features such as curated lists of popular restaurants, personalized recommendations, and user-generated content, the app aims to provide a comprehensive resource for food-related information. Additionally, features such as online payment options, restaurant reservations, and food ordering directly through the app aim to streamline the food experience and save user's time. Ultimately, the outcome of the food app is to create a user-friendly and engaging platform that enhances the food experience for all users.

2.0 References

[1] Android Developers Documentation | Documentation sheet

https://developer.android.com/?gclsrc=aw.ds&gclsrc=ds&gclsrc=aw.ds&gclid=C

[2] Developers | Android Studio

https://developer.android.com/studio?gclid=Cj0KCQjwmN2iBhCrARIsAG_G2i40_539Q2ElH4wS

[3] balsamiq software, wireframes

https://balsamiq.com

[4] Figma | Ui design

https://figma.com

[5] Photoshop | website

https://www.adobe.com/products/photoshop.html

[6] YouTube

https://www.youtube.com/watch?v=-PMxYVNGl1c