

TEAM WCKD

Cook Tips
Software Design Document
Version 01.01

Cook Tips	Version: 01.01
Software Design Document	Date: 11/16/2022
SDD-Cook Tips.DOCX	

Revision History

Date	Version	Description	Author
11/16/2022	01.00	First Version of SDD	TEAM WCKD
12/13/2022	01.01	Second Version of SDD	TEAM WCKD

Cook Tips	Version: 01.01
Software Design Document	Date: 11/16/2022
SDD-Cook Tips.DOCX	

Table of Contents

1. INTRODUCTION	4
1.1 Purpose	4
1.2 Scope	4
1.3 Overview	4
1.4 Reference Material	4
1.5 Definitions and Acronyms	4
2. SYSTEM OVERVIEW	5
3. SYSTEM ARCHITECTURE	6
3.1 Architectural Design	6
3.2 Decomposition Description	8
3.3 Design Rationale	13
4. DATA DESIGN	13
4.1 Data Description	13
4.2 Data Dictionary	13
5. COMPONENT DESIGN	14
6. HUMAN INTERFACE DESIGN	15
6.1 Overview of User Interface	15
6.2 Screen Images	15
6.3 Screen Objects and Actions	18
7. REQUIREMENTS MATRIX	19
8. APPENDICES	20

Cook Tips	Version: 01.01
Software Design Document	Date: 11/16/2022
SDD-Cook Tips.DOCX	

Software Design Document

1. INTRODUCTION

1.1 Purpose

This document describes the architecture and system design of the application to be developed “Cook Tips”. This document will explain the different methods and ways to be used to answer the questions on how the application will be built and how it will work. The developers will use this document as a basis for developing the application. This document will be used as a guide.

1.2 Scope

The application will be built on Android Studio which uses Java as the language. A cloud database will be used called Firebase for efficient development since the developers have experience on Firebase. Cook Tips is an idea created to develop an application that will benefit cuisine-loving users. This will help them with cooking through guiding them on the processes to be done to create a dish they like. This application will only be limited to Android Smartphones.

1.3 Overview

The proposed plan for completing the Cook Tips project is laid out in detail in the preceding Software Design Document (SDD). In order to properly document software designs, a comprehensive, reasonable, and adaptable template has been created. This paper provides guidelines about what should be in as many sections and subsections as possible.

Please be advised that this document does not contain parts that outline administrative or corporate duties or that suggest strategies or timelines for testing or development. Software design is the only topic covered in the parts of this document. Although there are some areas in this document where it is appropriate to explain the impact of such plans on software design, the author suggests that the majority of the specifics pertaining to such plans will belong in one or more distinct publications.

1.4 Reference Material

<https://online.visual-paradigm.com/drive/#diagramlist:proj=0&dashboard>
<https://slideplayer.com/slide/6560772/>

1.5 Definitions and Acronyms

Java - is a high-level, class-based, object-oriented programming language that is designed to have as few implementation dependencies as possible.

Firebase - The Firebase Realtime Database is a cloud-hosted NoSQL database that lets you store and sync data between your users in real time. NEW: Cloud Firestore enables you to store, sync and query app data at global scale.

Cuisine - a style or method of cooking, especially as characteristic of a particular country, region, or establishment.

SDD - Software Design Document

Cook Tips	Version: 01.01
Software Design Document	Date: 11/16/2022
SDD-Cook Tips.DOCX	

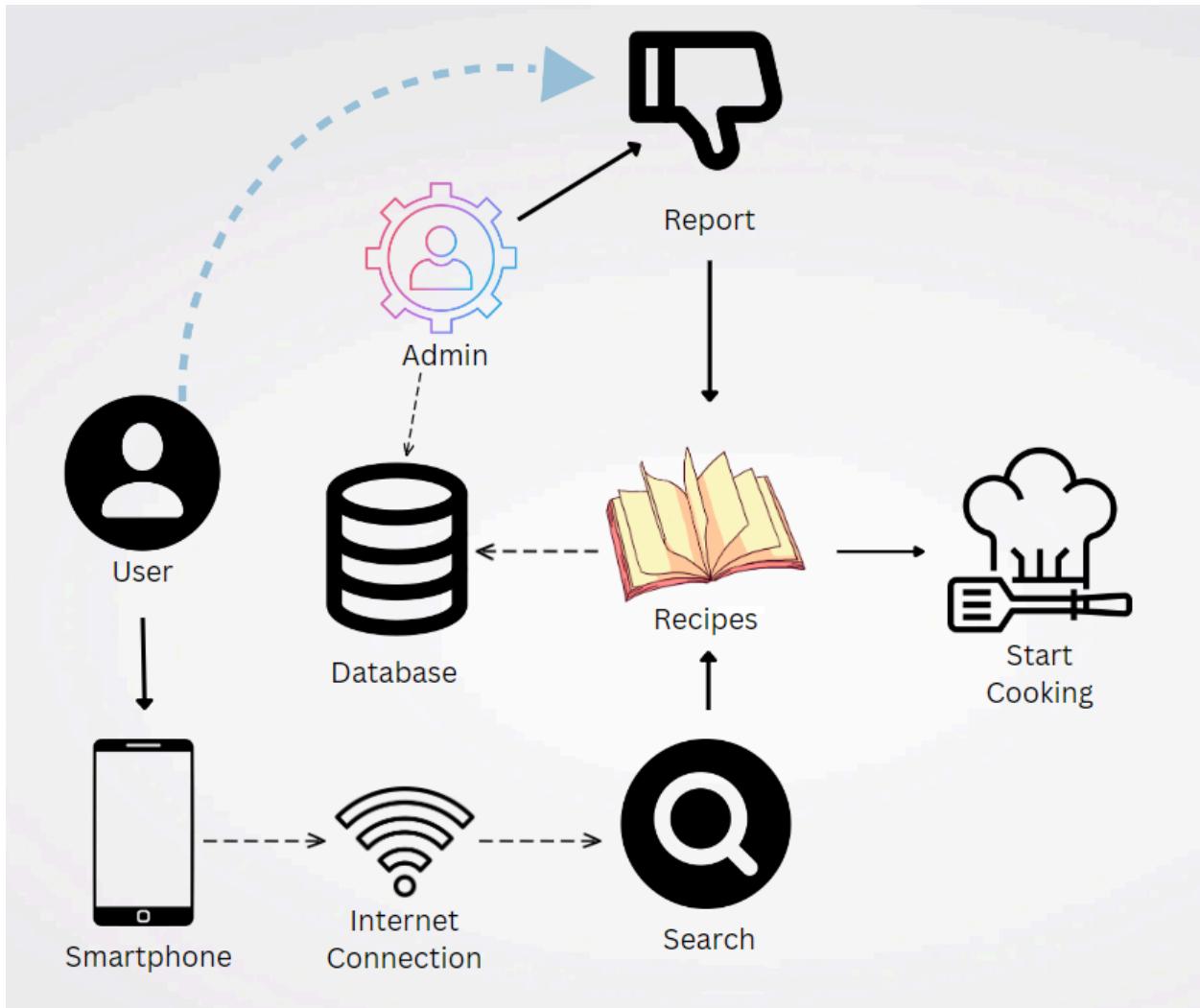
2. SYSTEM OVERVIEW

The software to be developed is coded with the java language and uses firebase as the database. The software will ask the user for an option to create an account or log in with an already made account. The users of this application will be cuisine-interested people. The user has the freedom to post an ingredient for other users to use. The user can also view other user's posts and can view and like them for guidance during cooking. The user will be given a button "Start Cooking" which starts the step-by-step instructions for the user to use. To avoid any posts unrelated to cooking, users can report a post and the admin can delete the post with excessive report notifications. With the like functionality, the user can store the liked post into his history where he can reuse and review for later use. Users will also be given a search bar where they are given already-made options where they will be given lists of posts that fit the given options. With this, users will have an easy and fun way to share and use different ways and styles of cooking food.

Cook Tips	Version: 01.01
Software Design Document	Date: 11/16/2022
SDD-Cook Tips.DOCX	

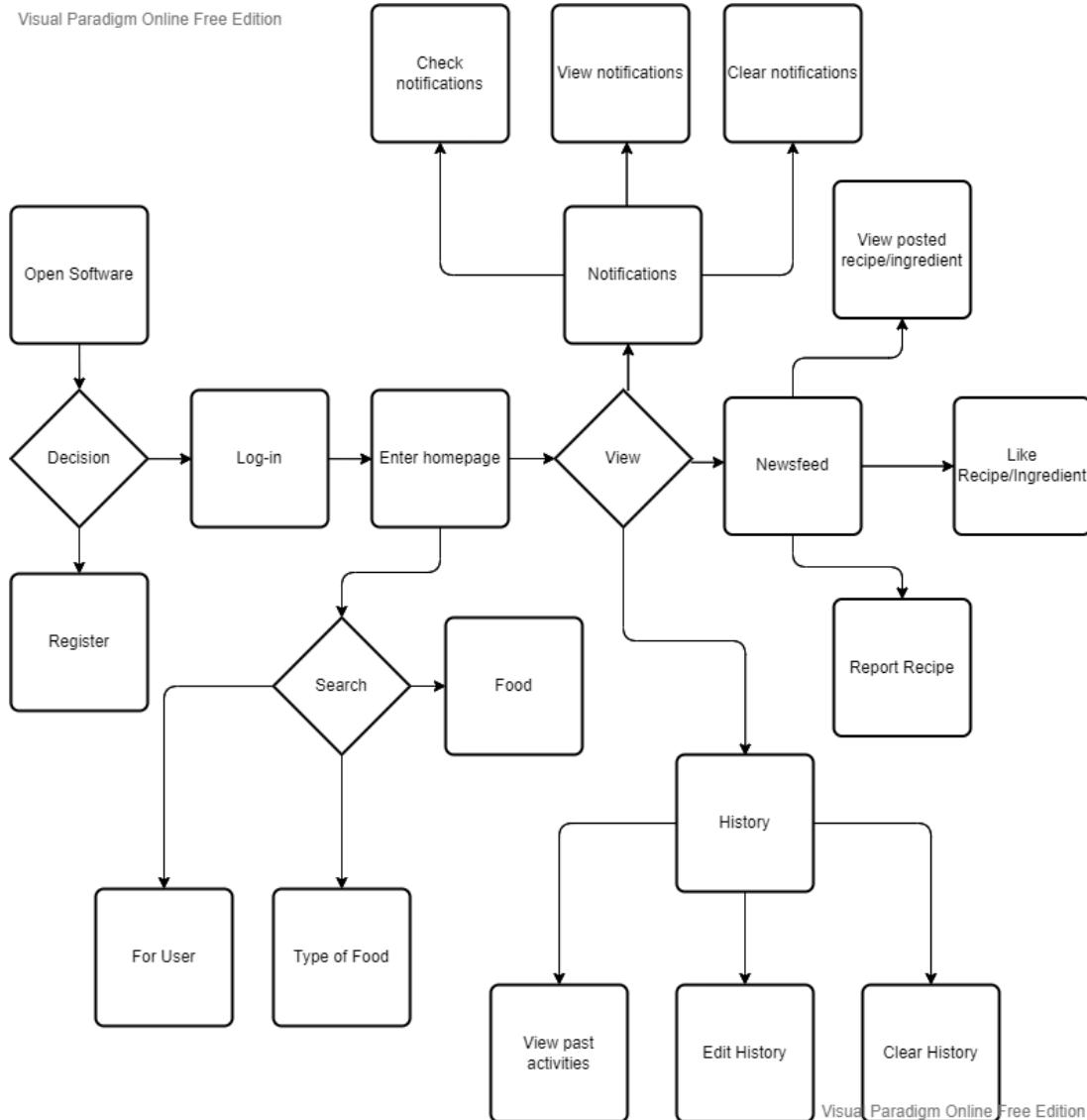
3. SYSTEM ARCHITECTURE

3.1 Architectural Design



Cook Tips	Version: 01.01
Software Design Document	Date: 11/16/2022
SDD-Cook Tips.DOCX	

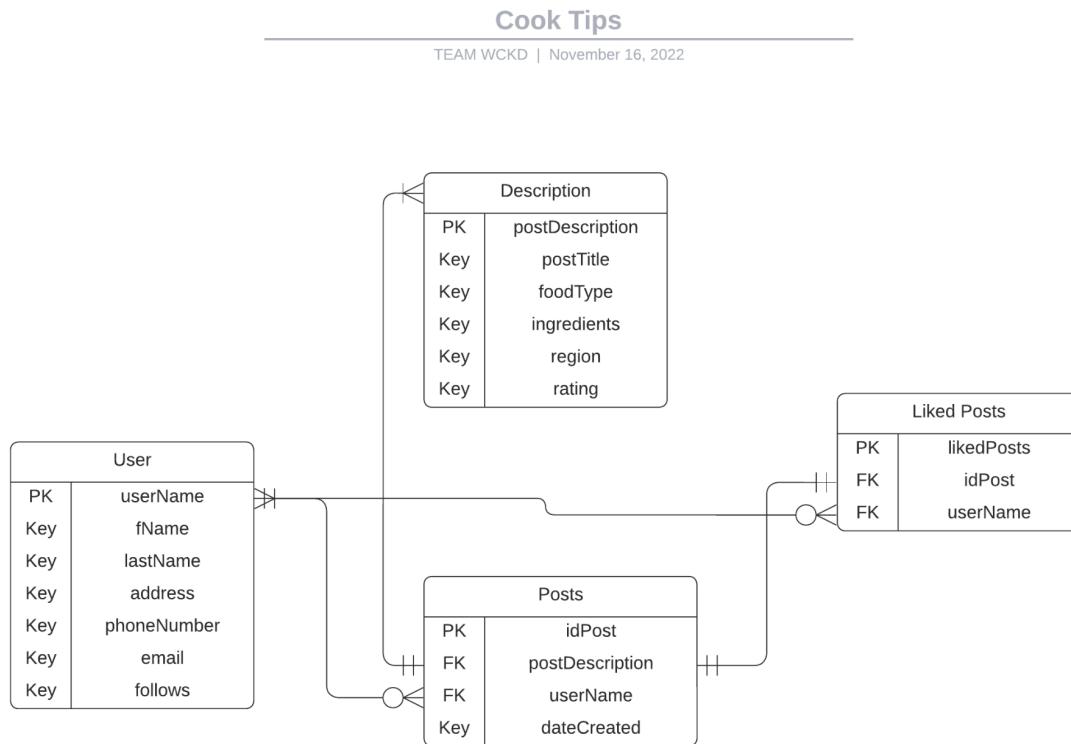
Flow Chart



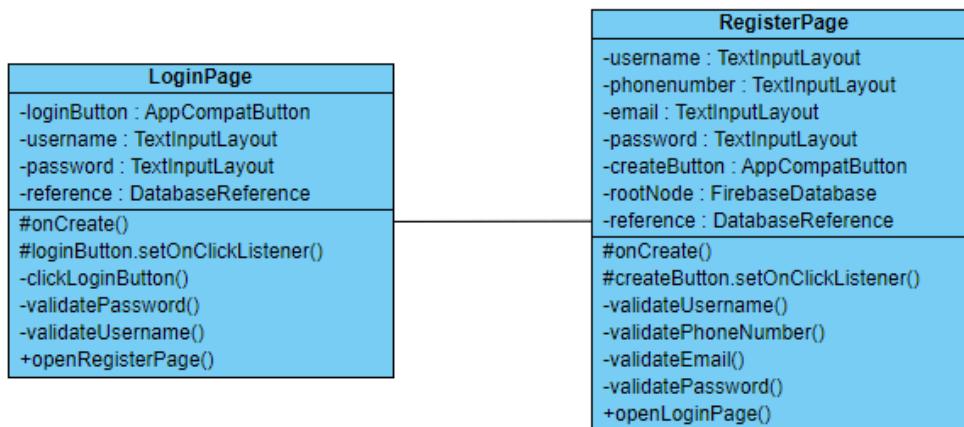
Cook Tips	Version: 01.01
Software Design Document	Date: 11/16/2022
SDD-Cook Tips.DOCX	

3.2 Decomposition Description

3.2.1.1 Entity Relationship Diagram

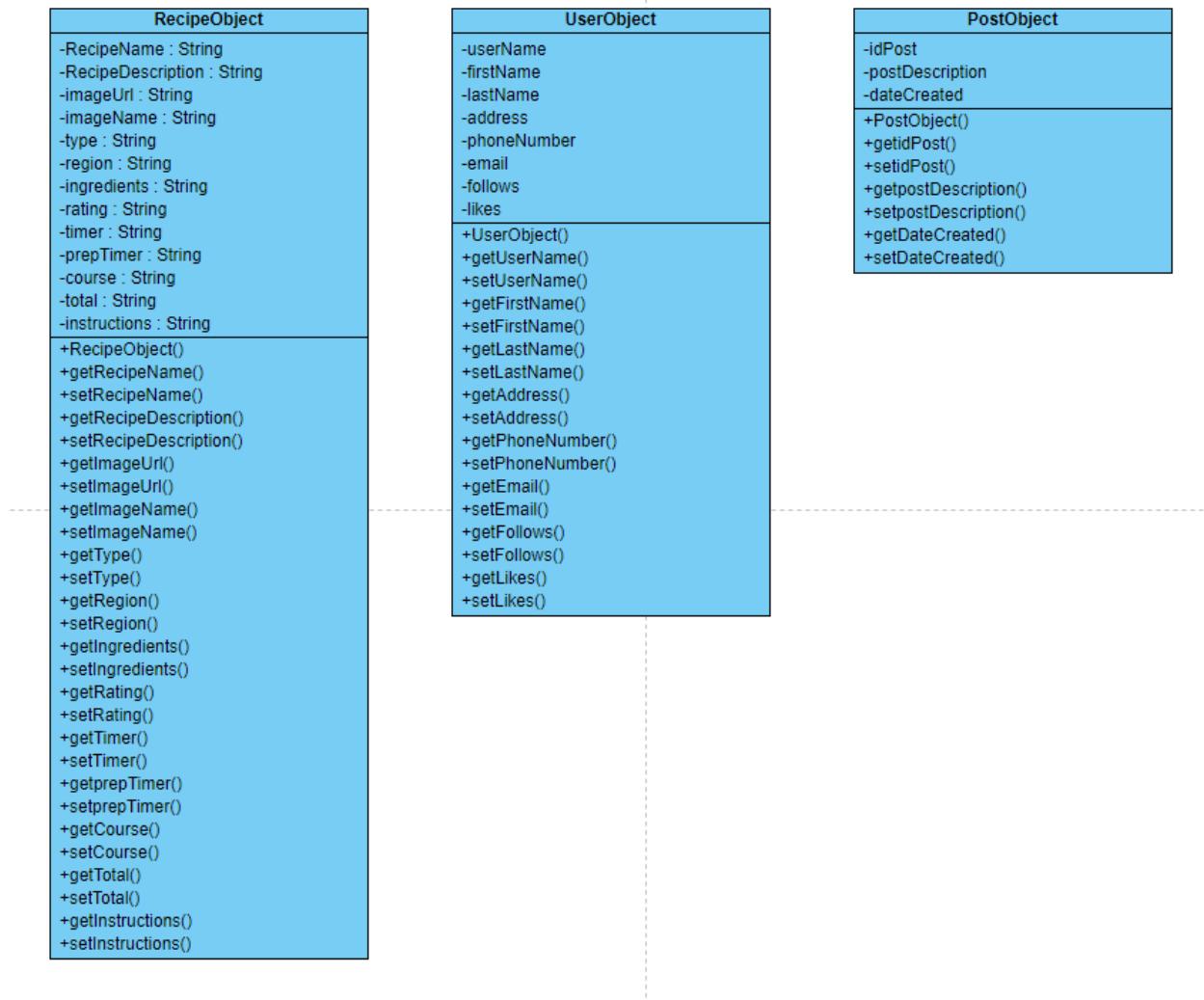


3.2.2.1 Login Class Diagram



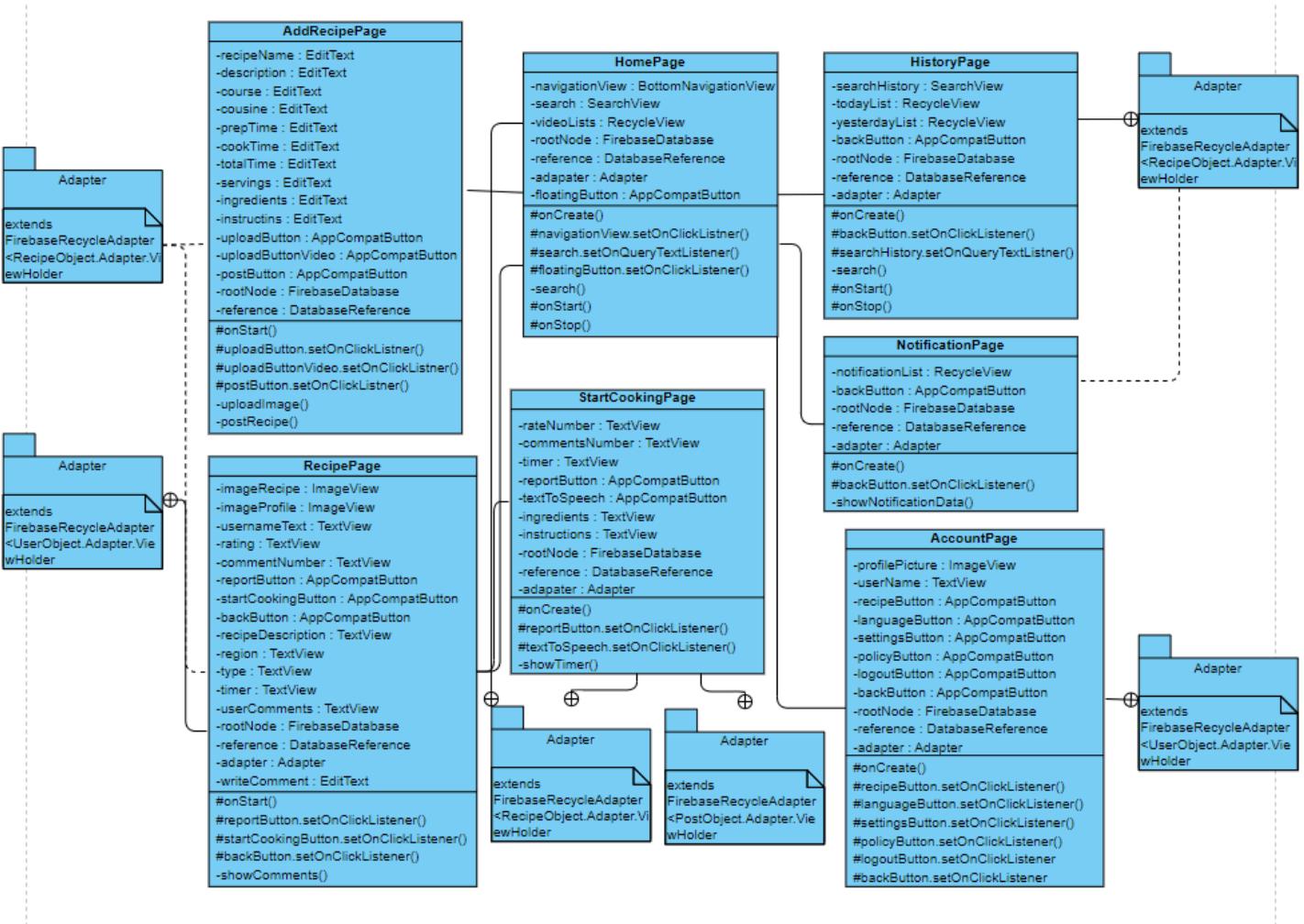
Cook Tips	Version: 01.01
Software Design Document	Date: 11/16/2022
SDD-Cook Tips.DOCX	

3.2.2.2 Object Class Diagram



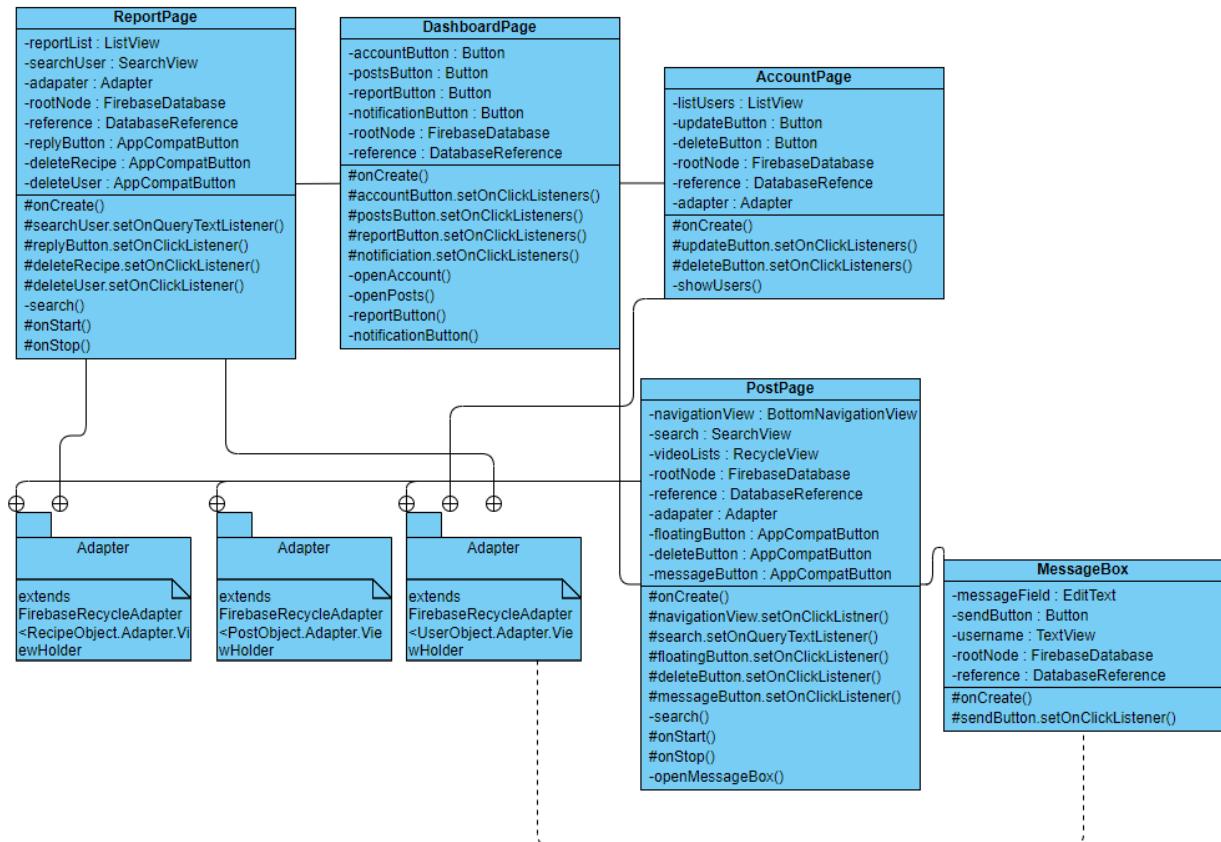
Cook Tips	Version: 01.01
Software Design Document	Date: 11/16/2022
SDD-Cook Tips.DOCX	

3.2.2.3 Home Class Diagram



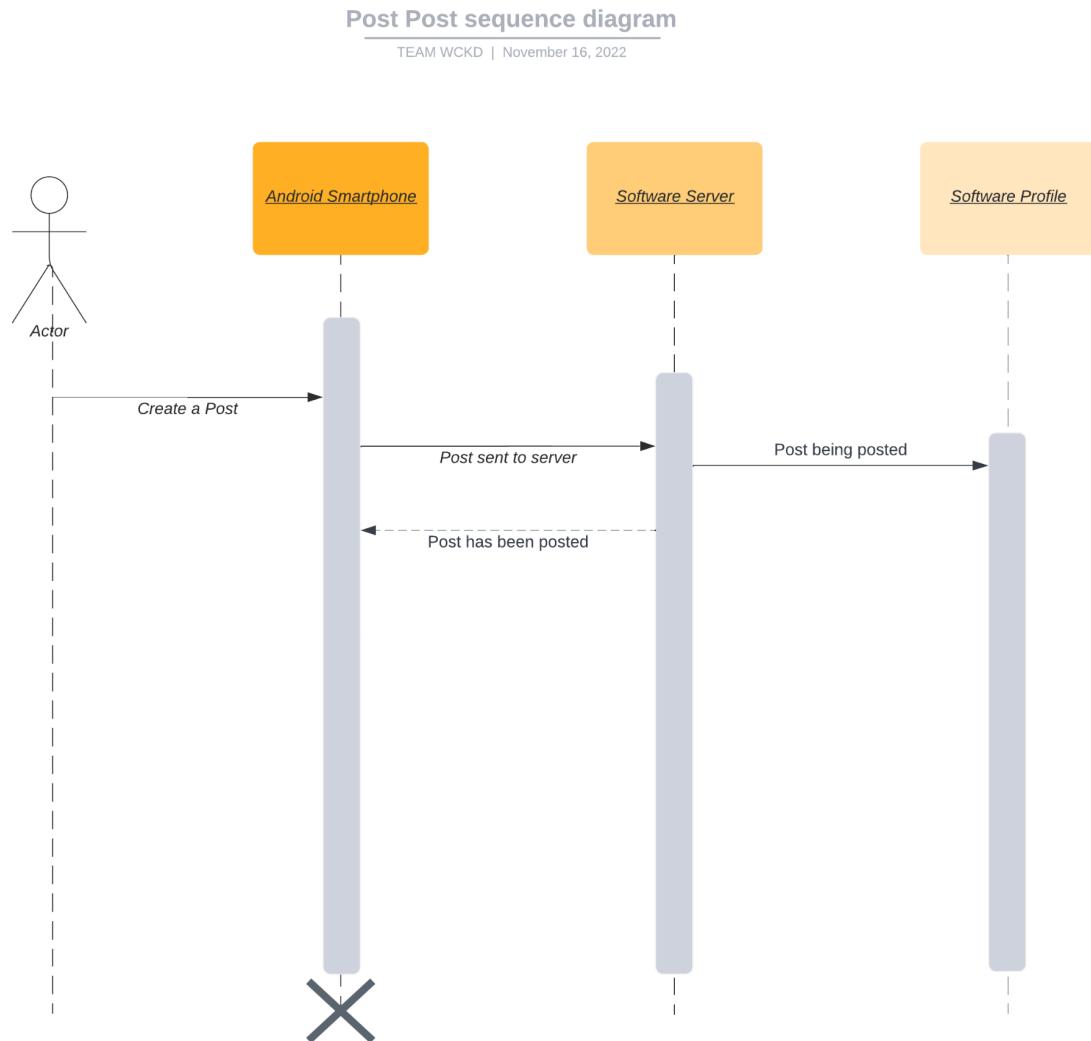
Cook Tips	Version: 01.01
Software Design Document	Date: 11/16/2022
SDD-Cook Tips.DOCX	

3.2.2.3 Admin Class Diagram



Cook Tips	Version: 01.01
Software Design Document	Date: 11/16/2022
SDD-Cook Tips.DOCX	

3.2.3.1 Post Sequence Diagram



Cook Tips	Version: 01.01
Software Design Document	Date: 11/16/2022
SDD-Cook Tips.DOCX	

3.3 Design Rationale

The Architectural model used is the Dynamic process model. During the Decision making, the Open Software and Register all lead to the Log-in which then enters the homepage where it can access subprograms like the Food, For user, and type of food. It is extremely efficient as it can invoke other components and enables it to run the code moderately. It then fixes itself in the database allowing a faster approach to our other subprograms.

4. DATA DESIGN

4.1 Data Description

The process accesses the database to perform all queries done by the application. First, on the login page, when the user creates an account, the data inputted by the user will be transferred to the user database table, including its details. There's also an error prompt for the user when they create an account with the existing username, because username is the primary key for the user data table. So, when the user starts to login, they will be directed to the home page where the contents or recipes are made by the user. In order to do that, the developers will store the recipes posted by the user to the database using an identifier with the int data type as the primary key, because if the recipe name is used as a primary key, it will become a problem because not all users have the same preference for a certain recipe. The image/video, time it takes, description, tags, and instructions are all included in the recipe data table.

4.2 Data Dictionary

- User Data Table

Attribute	Data Type	Purpose
Username	varchar	primary key for querying purposes
ProfilePic	image	indicates the profile of the user
PhoneNumber	varchar	indicates the contact number
EmailAddress	varchar	indicates the email address
Password	varchar	indicates the password of the user
RecipeName	varchar	indicates the name of the recipe to be created by the user
UserFeedback	varchar	indicates the feedback of the user to a certain recipe

- Recipe Data Table

Attribute	Data Type	Purpose

Cook Tips	Version: 01.01
Software Design Document	Date: 11/16/2022
SDD-Cook Tips.DOCX	

id	int	primary key for querying purposes
Username	varchar	indicates the name of the user who post a recipe
RecipeName	varchar	indicates the name of a certain recipe
RecipeImage	image	indicates the image or the thumbnail of recipe
RecipeVideo	string	indicates a visual presentation of how a certain recipe is made or how it looks
RecipeDescription	varchar	indicates the description of a recipe
RecipeInstruction	varchar	indicates the full details of the recipe including its ingredients and procedure.
RecipeTags	varchar	indicates what type of dish is a certain recipe, or what is the dish related
RecipePrepTime	varchar	indicates the time it takes to prepare to prepare the dish
RecipeCookTime	varchar	indicates the time the user needs when they start cooking
RecipeTotalTime	varchar	indicates total time of preparation and cooking time

5. COMPONENT DESIGN

To access the application, users will need to sign up on the application to be able to sign in. After the users are logged in, they will then be redirected to the Menu screen, here they can gain access to the food recipes and the “Notification”, “History”, “Search”, “Add”, and “Profile” Icons. The user then selects a recipe of their choice that will lead them to the Main feature of our application, the Cooking screen where they will be guided and instructed on how to make their chosen food recipe with a Text-to-Speech feature to efficiently instruct the user. The users can then view their previously opened recipe on our history page. Users can upload their own recipes on the application if approved by the admins. The database of this application will be Firebase and be built on Android studio using Java.

For the Admin, they are required to sign in using the Admin Account. They will be the one to manage the Food recipes, authorize users to upload their own recipes, and organize the information on the application. They will have access to all the settings and customizations of the recipes as well as filtering

Cook Tips	Version: 01.01
Software Design Document	Date: 11/16/2022
SDD-Cook Tips.DOCX	

the comments made by users on the authorized recipes approved by the Cook Tips Admin.

6. HUMAN INTERFACE DESIGN

6.1 Overview of User Interface

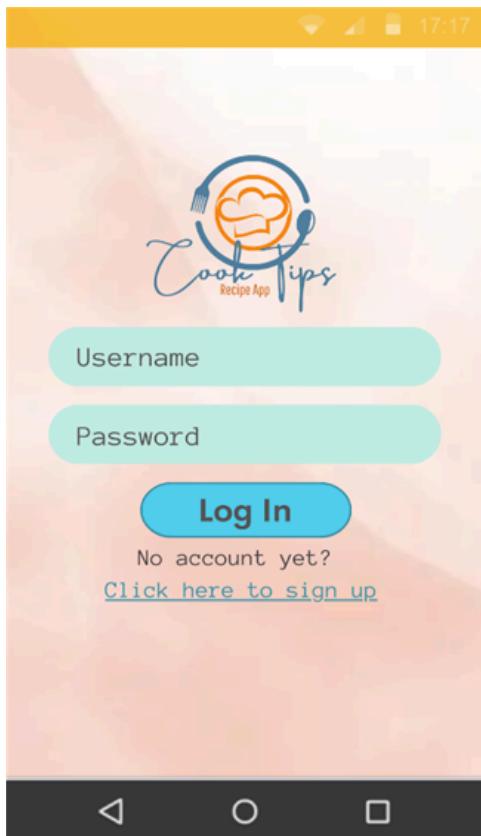
The application is compatible with any android device.

When the application is opened, the user will be directed to the Log-in Screen where Users can sign in and sign up. The application will then have 4 main pages.

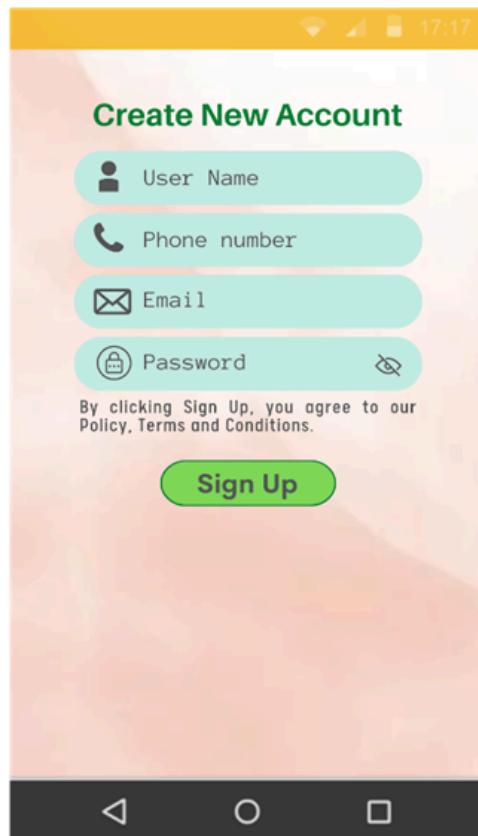
- Main Menu - This is where the users are shown recipes that are trending and recommended by the application and also displays the “Notification”, “History”, “Search”, “Add”, and “Profile” Icons.
- History - This is where users can navigate through their previously opened recipes.
- Cooking Screen - The main feature of the application where the users are guided and instructed on how to cook their selected recipe with a Text-to-Speech feature for efficient cooking.
- Add Recipe - This is where users can add their own recipes for others to enjoy.

6.2 Screen Images

6.2.1. Log-In Screen

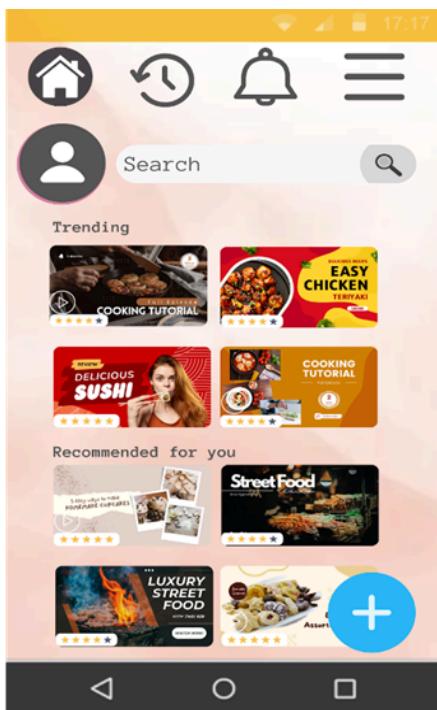


6.2.2. Create New Account Screen



Cook Tips	Version: 01.01
Software Design Document	Date: 11/16/2022
SDD-Cook Tips.DOCX	

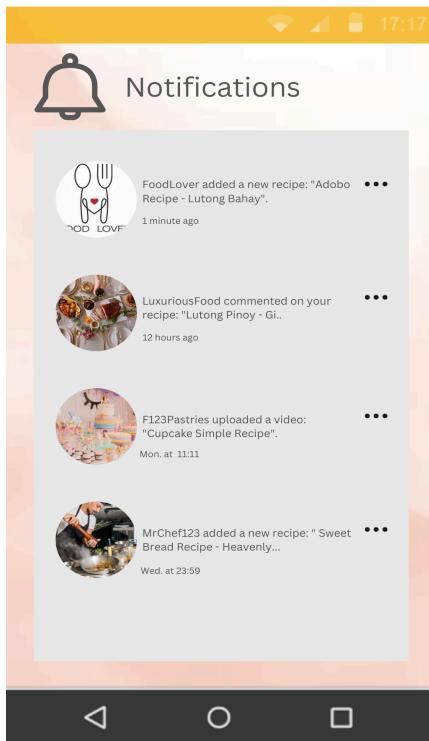
6.2.3. Main Menu Screen



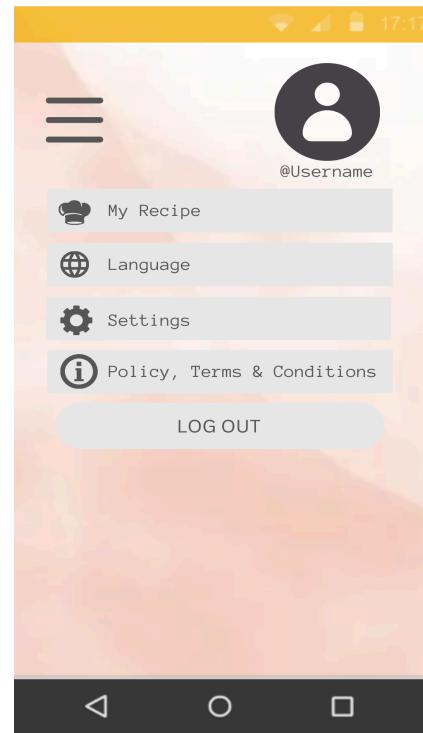
6.2.4. View History



6.2.5. Notification Screen



6.2.6. Account Screen

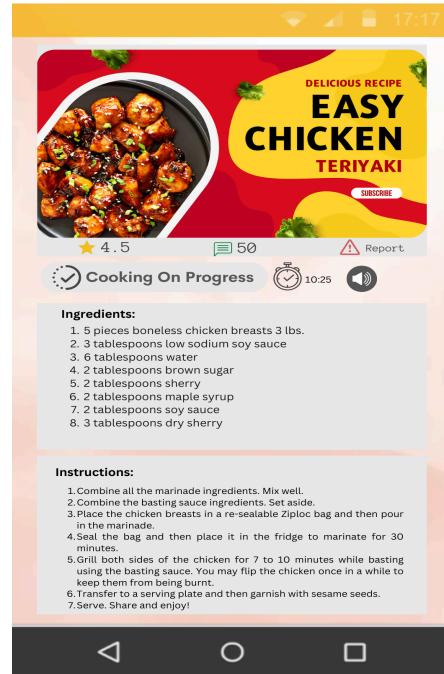


Cook Tips	Version: 01.01
Software Design Document	Date: 11/16/2022
SDD-Cook Tips.DOCX	

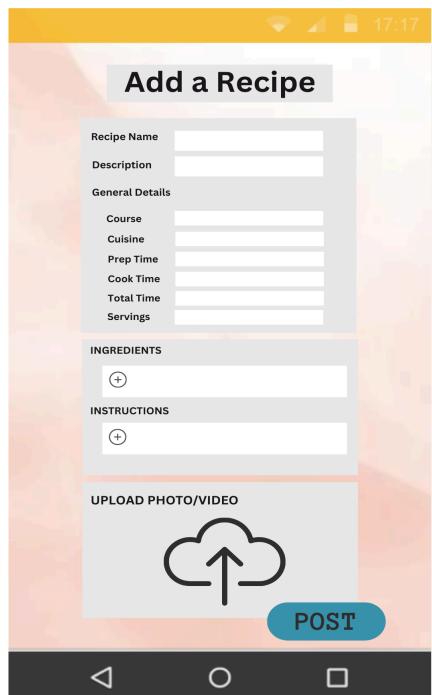
6.2.7. Start Cooking Screen



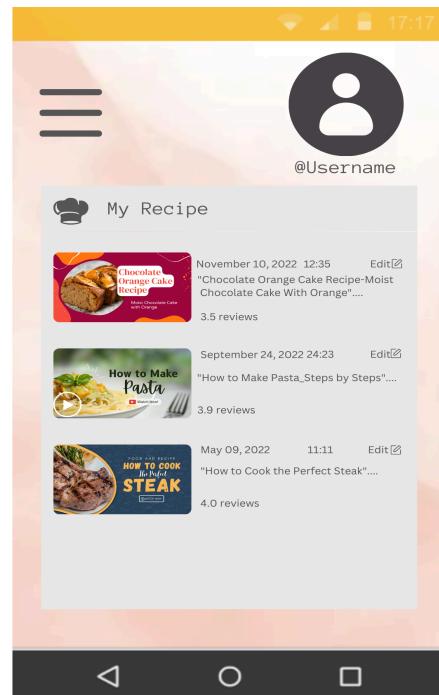
6.2.8. Cooking in Progress Screen



6.2.9. Add Recipe Screen

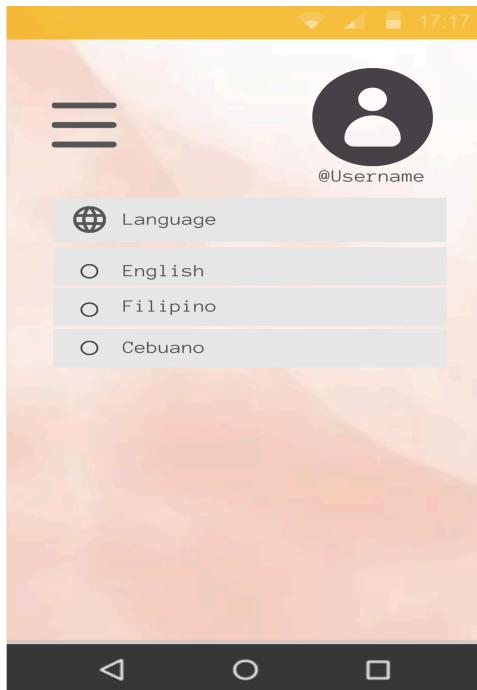


6.2.10. My Recipe Screen

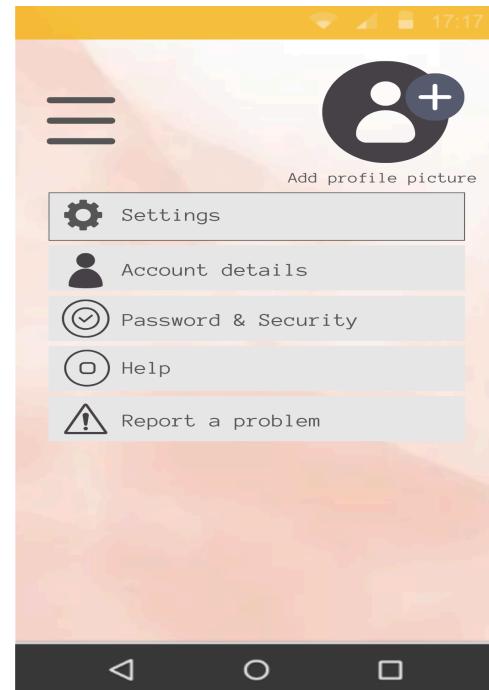


Cook Tips	Version: 01.01
Software Design Document	Date: 11/16/2022
SDD-Cook Tips.DOCX	

6.2.11. Language Screen

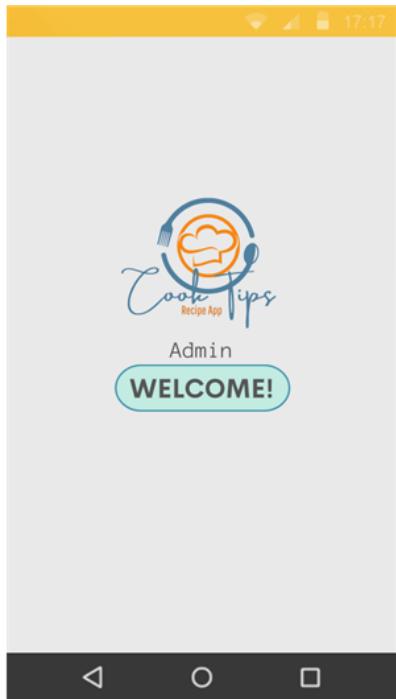


6.2.12. Settings Screen

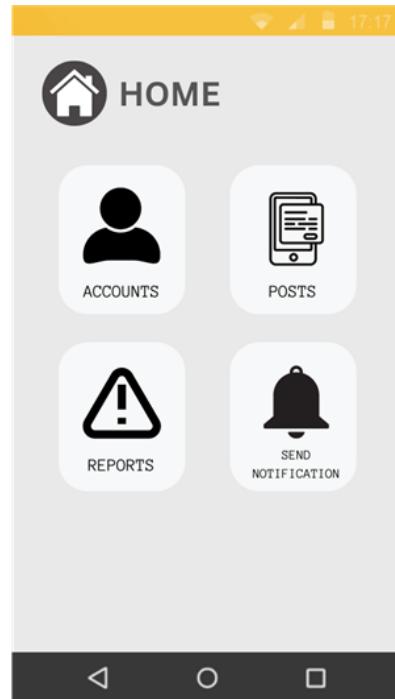


For Admin User Interface

6.2.13. Welcome Screen



6.2.14. Home Screen



6.2.15. Accounts

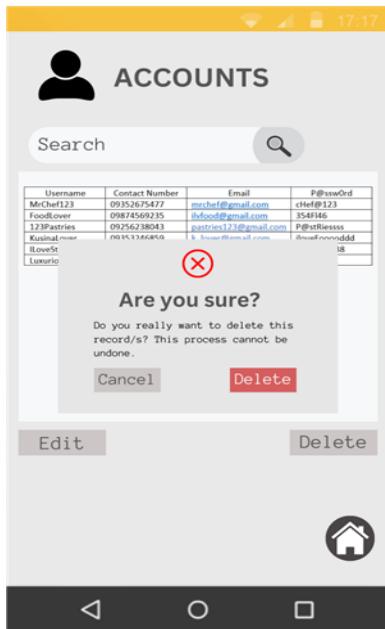
Search

Username	Contact Number	Email	P@sswOrd
MrChef123	09352675477	mrchef@gmail.com	cHeF#123
FoodLover101	09234567890	foodlover101@gmail.com	foodlover101
123Pastries	09256238043	pastries123@gmail.com	P@ssw123ss
Kusinatlover	09353246859	k_lover@gmail.com	lovelooooodd
ILoveStreetFood	09246896526	street food@gmail.com	1214654738
LuxuriousFood	09426892068	luxuryfood@gmail.com	RqfInk46

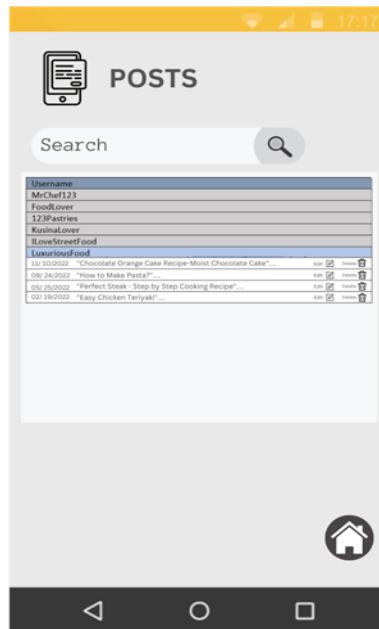
Edit Delete

Cook Tips	Version: 01.01
Software Design Document	Date: 11/16/2022
SDD-Cook Tips.DOCX	

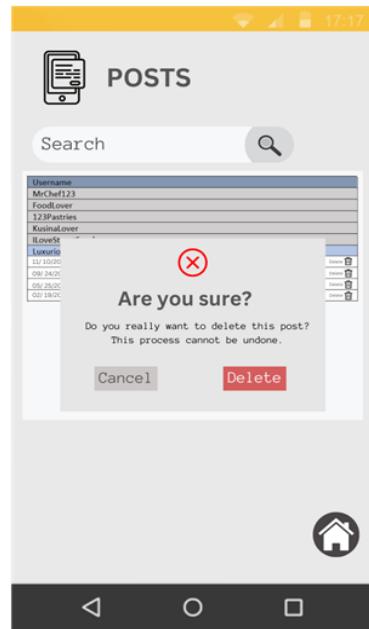
6.2.16. Accounts Delete Prompt



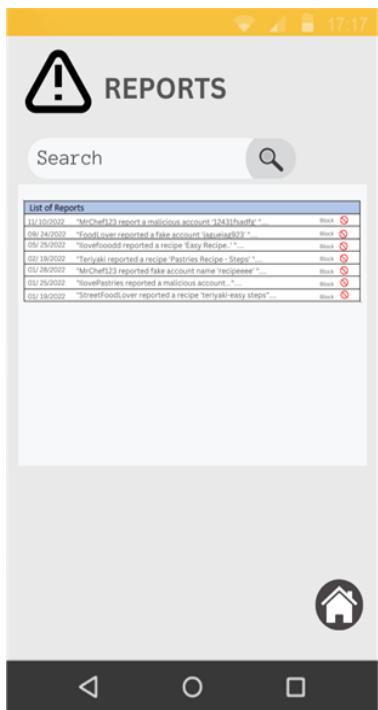
6.2.17. Posts



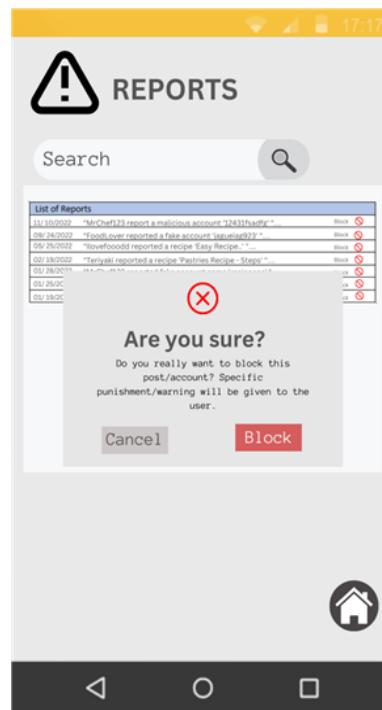
6.2.18. Posts Delete Prompt



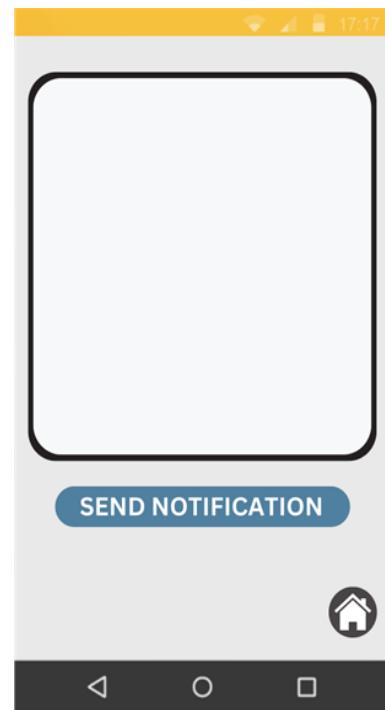
6.2.19. Reports



6.2.20. Reports Block Prompt



6.2.21. Send Notification



Cook Tips	Version: 01.01
Software Design Document	Date: 11/16/2022
SDD-Cook Tips.DOCX	

6.3 Screen Objects and Actions

6.3.1. Log-In Screen Description

Name: Log-In

Description: This is where the Login, Signup, and the About buttons are shown since there is no user logged in into the application. Each button has their own icons beside them.

6.3.2. Create Account Description

Name: Create Account

Description: This is where users register their account for access to the application main features. Users are able to input their preferred username, password and their email address. All of the inputted credentials will be checked first by the system if the data are credible for storage in the database.

6.3.3. Main Menu Description

Name: Main Menu

Description: After logging in, the screen will show recipes that are trending and recommended by the application and also displays the “Notification”, “History”, “Search”, “Add”, and “Profile” Icons.

6.3.4. View History Description

Name: View History

Description: This is where users can navigate through their previously opened recipes.

6.3.5. Notification Description

Name: Notification

Description: This is where the user gets notified if there is a new recipe posted by other users, comments on your posts, and updates on a fellow user.

6.3.6. Account Screen Description

Name: Account Screen

Description: This is where users can navigate through the “My Recipe”, “Language”, “Settings”, “Information”, and “LogOut” Icons.

6.3.7. Cooking Screen Description

Name: Cooking Screen

Description: This is the main feature of the application where users are guided on their selected recipe to follow. The feature displays the list of ingredients, a timer, and instructions on how to cook the recipe accordingly. It also has a timer and a Text-to-Speech feature where users can be instructed without looking at the application. Users can also rate, comment, and report the recipe

Cook Tips	Version: 01.01
Software Design Document	Date: 11/16/2022
SDD-Cook Tips.DOCX	

for other users to see.

6.3.8. Add Recipe Screen Description

Name: Add Recipe Screen

Description: This is where users can add their own recipes for others to follow. Users can input the recipe name and its description along with general details of the recipe including the ingredients, instructions, and a Video/Photo for users to follow.

7. REQUIREMENTS MATRIX

7.1 Users' Side

Specific Requirements	Test	Status
Create Account	Test Case 3.1.1.1 Test Case 3.1.1.2 Test Case 3.1.1.3 Test Case 3.1.1.4 Test Case 3.1.1.5	Passed Passed Passed Passed Passed
Home	Test Case 3.1.2.1 Test Case 3.1.2.2	Passed Passed
Add a Recipe	Test Case 3.1.3.1 Test Case 3.1.3.2	Passed Passed
Upload Image/Video	Test Case 3.1.4.1 Test Case 3.1.4.2	Passed Passed
Recipe Details	Test Case 3.1.5.1 Test Case 3.1.5.2 Test Case 3.1.5.3	Passed Passed Passed
Start Cooking	Test Case 3.1.6.1 Test Case 3.1.6.2 Test Case 3.1.6.3	Passed Passed Passed
Note Keeping/Comments	Test Case 3.1.7.1 Test Case 3.1.7.2 Test Case 3.1.7.3	Passed Passed Passed
Search	Test Case 3.1.8.1 Test Case 3.1.8.2 Test Case 3.1.8.3	Passed Passed Passed
Text-to-Speech	Test Case 3.1.9.1 Test Case 3.1.9.2	Passed Passed

Cook Tips	Version: 01.01
Software Design Document	Date: 11/16/2022
SDD-Cook Tips.DOCX	

7.2 Admin's Side

See and change user details	Test Case 3.4.2.1	Passed
Delete existing accounts	Test Case 3.4.2.2	Passed
Check posts created by the users before being posted	Test Case 3.4.2.3	Passed
Delete inappropriate comments in recipe details	Test Case 3.4.2.4	Passed
Delete inappropriate posts, posted by users	Test Case 3.4.2.5	Passed
Send notifications to the users	Tast Case 3.4.2.6	Passed

8. APPENDICES

This section is optional.

Appendices may be included, either directly or by reference, to provide supporting details that could aid in the understanding of the Software Design Document.