SOFTWARE REQUIREMENT SPECIFICATIONS

Project Topic: [Bhutanese Recipe]

Submitted by:

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1. Introduction

A. Purpose

The purpose of software requirement specification (SRS) document is to describe what the software will do and how it will work. It includes in-depth descriptions of the software that will be developed.

B. Scope

System Scope

For people to learn Bhutanese cuisine, they have to search from the websites where all the recipes are not available in single platform.

I am going to develop an android based application with the following features:

1. Categories: The user can select a category that they want (Veg or Non-Veg).

2. Favorite: The user can add and remove the recipes in favorite.

3. Share link: The user can share the recipe link with their friends and family.

Future Scope

4. Upload Recipe: The user can upload their recipes in the application.

User Scope

The target of my project are those people who want to learn Bhutanese cuisine.

2. Requirements

a. Functional Requirements:

i. Describe each feature of your application

This are some of the features that will be included in our application:

1. Categories: The user can select a category that they want (Veg or Non-Veg).

2. Favorite: The user can add and remove the recipes in favorite.

3. Share link: The user can share the recipe link with their friends and family.

b. Non-functional Requirements

1. Portability and compatibility
   This application is portable as well as compatible as it can be supported in all the platforms of android versions.

2. Usability

This application is very easy to use as:

a. Learnability: The users will be able to use our application very easily since the direction and naming conventions will be properly written with icons. For now, our scope is limited to the students of GCIT therefore the students will be able to use our application very easily.
b. Errors: The users will not make many mistakes as the features will be named specifically with icons.
c. Memorability: Since our application is not complex, the users will not face trouble when using our application after sometimes.

c. Software Requirements:

i. The technology used and version

The technology that is used for developing this application is

- Android studio (Version: 4.1.2 and Gradle Version: 6.5)
  Android Studio is the official integrated development environment for Google's Android operating system, built on JetBrain's IntelleJ IDEA software and designed specifically for Android development.

- Java Development Kit
  The Java Development Kit is an implementation of either one of the Java Platform, Enterprise Edition, or Java Platform, Mirco Edition platforms released by Oracle Corporation in the form of a binary product aimed at Java developers on Solaris, Linux, macOS or Windows.

- Operating System
  To develop this application, we will be using either Windows OS or Ubuntu OS.

- SQLite version 3.35.3
  SQLite is a Relational Database Management System (RDBMS) which uses SQL specifications.

- DB browser version 3.12.1
  It is a high quality, visual, open source tool to create, design and edit database files compatible with SQLite

3. Hardware Requirements

- Developers Requirements

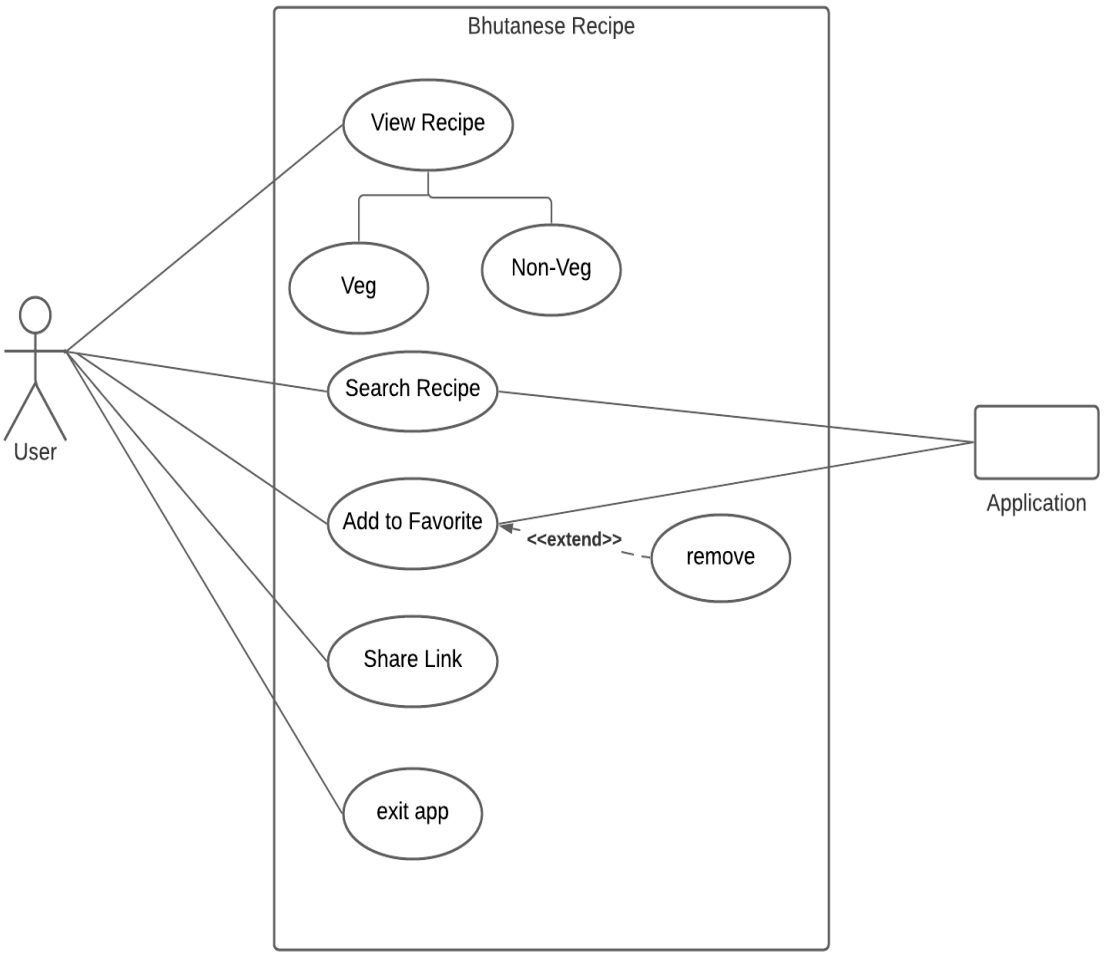
1. 4-8GB RAM
2. 2.00GHz*4 Processors
3. Disk Capacity: 1 TB and above
4. 1280 x 800 minimum screen resolution
5. Android Smartphone to use as an emulator

- Users Requirement

1. Android Phone (Emulator)

4. System Design

1. Use Case Diagram



Description

A use case diagram is drawn to demonstrate the different ways that a user might interact with the system.

In this diagram, we have user as the primary actor who initiates an interaction with the system and on the other side we have application as the secondary actor who helps the primary actor in achieving the interaction.

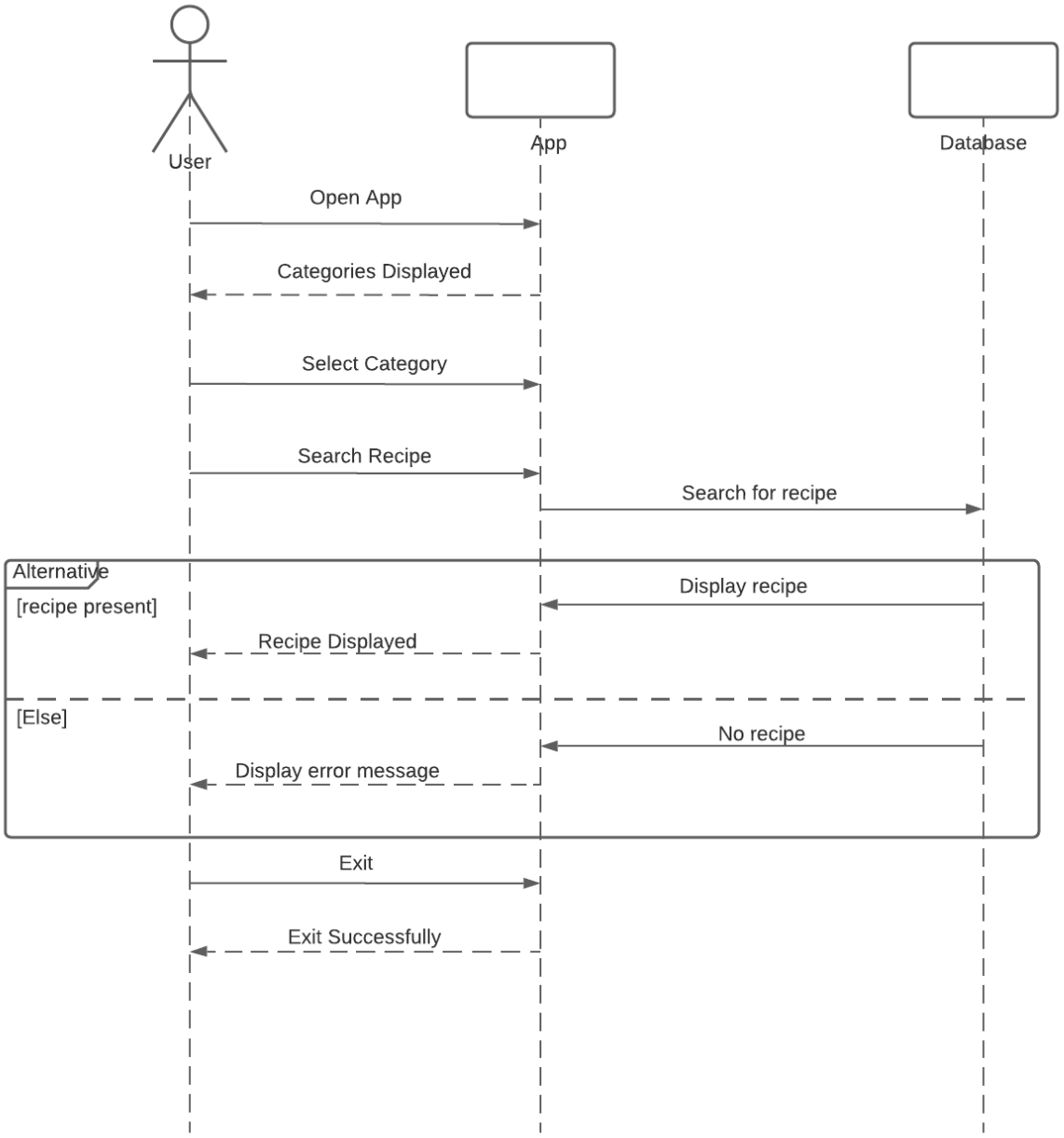
The functionalities of users are as follows:

1. View Recipe
2. Search Recipe
3. Add to favorite
4. Share Link
5. Exit Application

The functionalities of application are as follows:

1. Search recipes
2. Add to favorite

2. Sequence Diagram



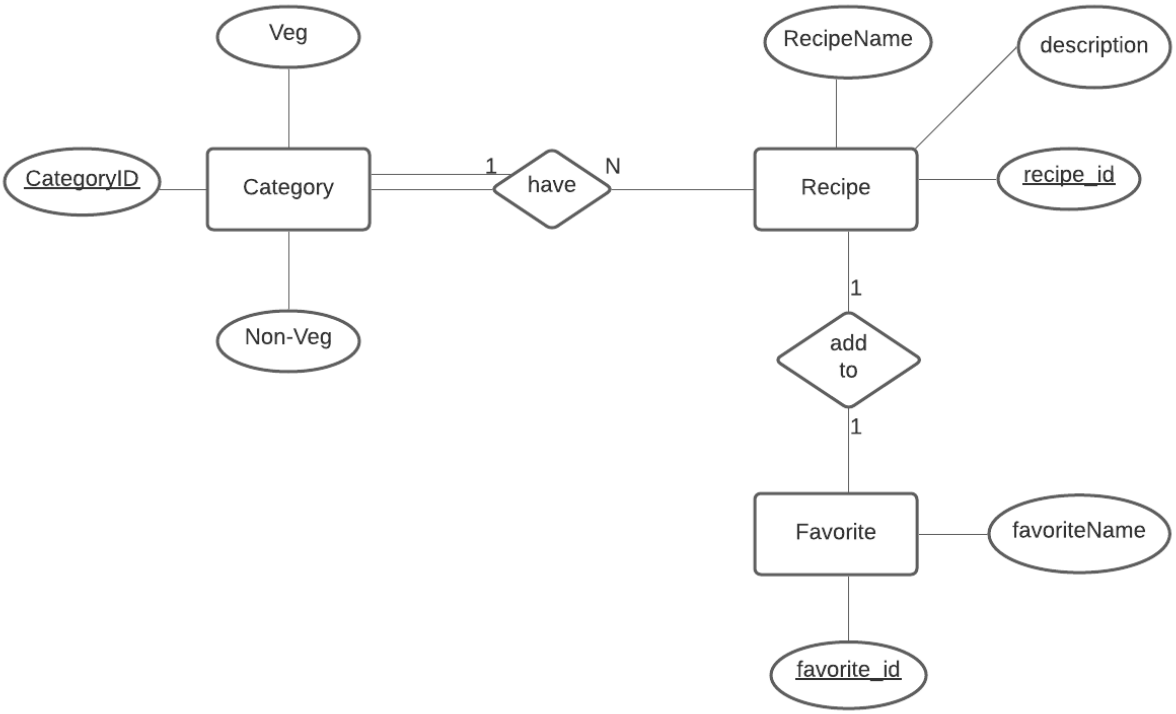
Description

A sequence diagram is drawn to describe how and in what order a group of objects works together in order to help identify high level messages that enters and exits the system. It will also help in visualizing and validating various runtime scenarios.

Sequence Flow

Categories ⟶ Searching ⟶ View(Displaying)

3. Entity Relationship Diagram



Description

An entity relationship diagram will give a snapshot of how the entities relate to each other and provides visual representation of the relationships between different sets of entities.

In this diagram we have three entities i.e category, recipe and favorite. The entity category has attributes like, categoryID, Veg and Non-Veg where categoryID is the primary key that will identify the categories uniquely.

The entity recipe has attributes like, RecipeName, description and recipe_id which is the primary key. The entity favorite has attributes like, favoriteName which will have all the details of the recipe and favorite_id which is the primary key.

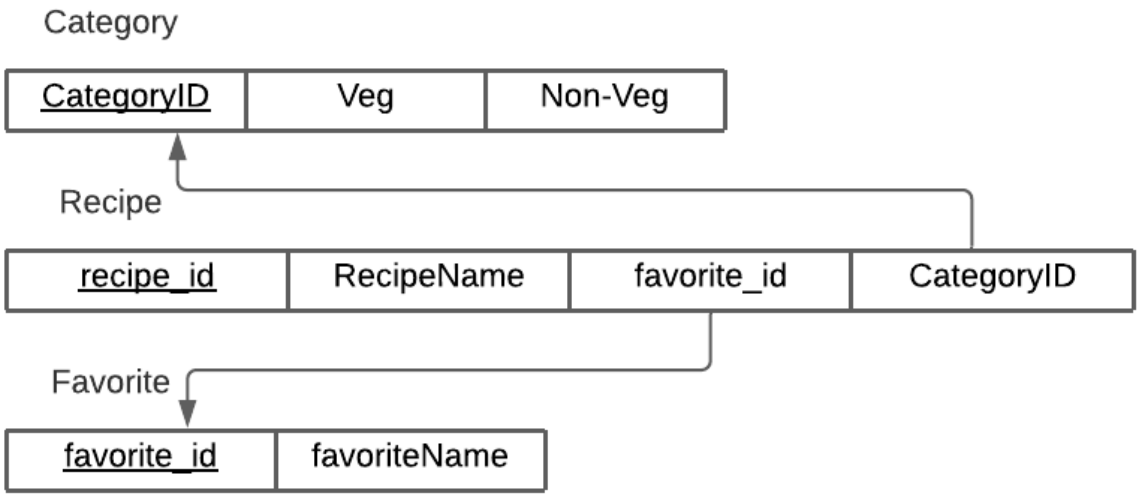
Relationship

We have two relationships in this er diagram. They are:

1. Have
   Cardinality ratio: 1:N (one-to-many)
   Participation: Total participation in 1's side and partial participation in N's side
2. Add to
   Cardinality ratio: 1:1 (one-to-one)

Participation: Partial participation in both side.

4. Relational Schema



Description

A relational schema will give an outline of how data is organized to understand how each table is laid out, including the columns and types of data they hold and how tables connect.

In this relational schema, we have three tables and they are:

1. Category with category as the primary key
2. Recipe with recipe_id as the primary key
   In this table we have, favorite_id and categoryID as the foreign key.
3. Favorite with favorite_id as the primary key