Flavor Town Requirements

Ian Campbell, Tyler Gabriel, Austyn Trull, and Joe Xu

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Flavor Town Change History

Version Summary Author Date

0.1 Initial Wireframe Joe Xu 9/18/2016

0.2 Reviewed and commented wireframe Ian Campbell 9/19/2016

0.3 Filled in descriptions Joe Xu 9/21/2016

0.4 Added Main Activity Diagram to the document Tyler Gabriel 9/21/2016

0.5 Added Use Case Diagrams Austyn Trull 9/21/2016

0.6 Added Class Diagrams Ian Campbell 9/21/2016

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1. Introduction

1.1 Purpose

The purpose of this document is to outline the requirements specifications for the Flavor Town food app. This documents will give an overall descriptions of the project. The documents will further list the functional and nonfunctional requirements. Attached will also be UML documentation for specific use cases, user activity or interaction flows, and an overarching class diagram.

1.2 Scope

This application will attempt to create a platform for people to try, rate, and share new foods in their local area. The project will be developed on android. Users will hopefully find this app to be a innovative and engaging way to find the best food item at a restaurant.or in an area. This app should be the first point of reference when someone wants to go eat something new.

1.3 Definitions

Flavor Town - The name of of android application being developed

Rating - A scale from 1-5 that allows users to rate their food

2. Overall Description

2.1 Product Perspective

Finding new food has always been an ordeal, especially when at a new restaurant facing a new menu loaded with options. Hard earned money is at stake and ordering the wrong item can ruin one’s day. Today there exists applications that will lists what restaurants are good, but none go as far as to tell items on that restaurant's menu that makes that restaurant great. This need gives FlavorTown the opportunity to truly give the user a good idea of what food to order.

2.2 Product Features

This will be a crowd sourced application with user rating as the backbone of the app. The user will be able to open up the app and locate restaurants in the area, either through the interactive map or through a list of nearby restaurants. Once having reached the locale, and having tried an item, the user is then able to rate the food. This rating will be aggregated and computed on the back end. Theses calculation will allow future eaters to be better informed about the food that they will choose to eat.

2.3 Android Application - User Interaction

The main method users will use this application is through their Android phone. The application will use standard touchscreen interfaces that should be intuitive enough for casual users to quickly understand. The application will try to pull resources from the user's phone such as GPS.

2.4 Database

To store the ratings for our application we will use a database. The database will associate users with their ratings. These ratings will be aggregated to find the best food for particular restaurants. The database will hold all the data on the restaurants, the menus, and the users.

2.5 User Accounts

Each user will create an account upon first use of the app. This will help keep track of the user's voting, preferences, and other things associated directly with the user.

2.6 Assumptions and Dependencies

The minimum SDK version the application will be developed on "Ice Cream Sandwich". The user would need the minimum version supported by this SDK to run the application. The application will require data connection in order to update maps and receive the aggregated ratings from the database.

3. Functional Requirements

3.1 Main Feature

Feature	Description	Priority
Search Restaurants	The restaurant is able to be found through the map or through a search, based on what restaurant is listed in the backend.	High
Obtain Menu Display	The items within the restaurants will be ranked. These items will allow the user to see what food item is worth considering.	High
Display Best Item	The best items within the restaurants will be ranked based the the ratings that the user gives.	High

3.2 User Rating

Feature	Description	Priority
Rate Food	Ratings of the menu items are gathered from the users. These ratings are to be stored in a database and will return a calculated list of ranked food items.	High

3.3 Map

Feature	Description	Priority

Has Location Tracking	The map will have the option of tracking the user as they move about, calculating the most relevant restaurants in the area.	Medium
Calculate Best Item in Area	The app will be able to return the best food item within a given radius of the user.	Medium

3.4 Database

Feature	Description	Priority
Database Updates	The database stores user accounts, restaurants, restaurant menu items, user ratings, and rating comments.	High
Calculate Ratings	The restaurants and menu items are associated in the database along with the rating for the item. The database updates according to new information	High
Show Restaurant Hours	The app is able return food recommendations based on what restaurants are open	Low

3.5 User Preferences

Feature	Description	Priority
Food Filter Preferences	The user is allowed to save their food preferences. Future searches will be filtered on these preferences	Low
User history	The user is able to find previously rated food through a history feature.	Low
Guess Preference	The app is able to recommend a food item based on previously well rated items	Low

4. Nonfunctional Requirements

4.1 Usability

- **FlavorTown should be intuitive to the user - user should be able to see recommendations and rate food with relative ease.**
- **The application should be non-intrusive, allowing users to browse and rate foods**

at their own pace.

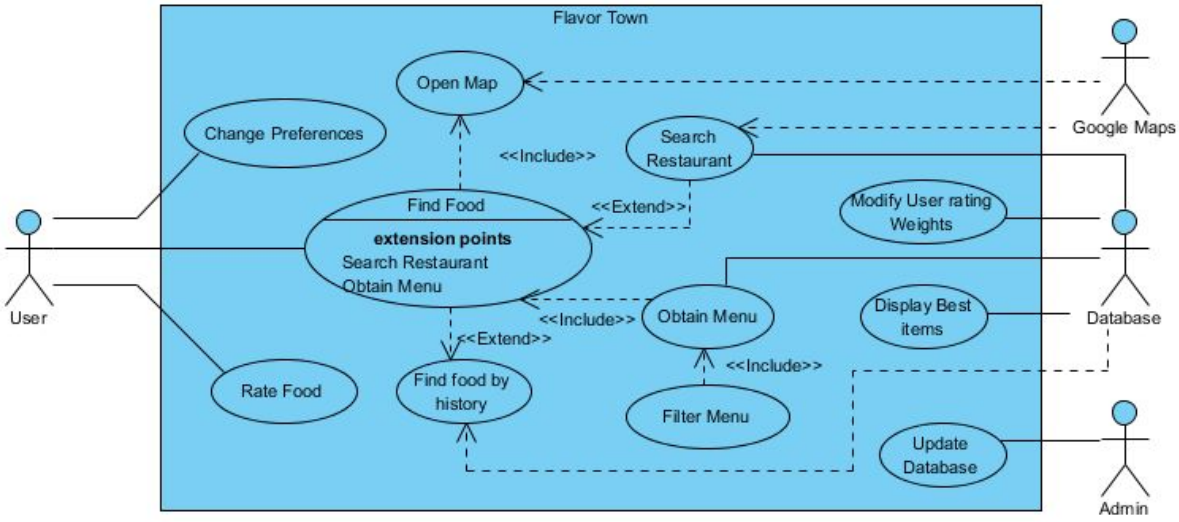
- The application should have fast response times where the calculations done on the backend are unnoticed to the user.

4.2 Scalability

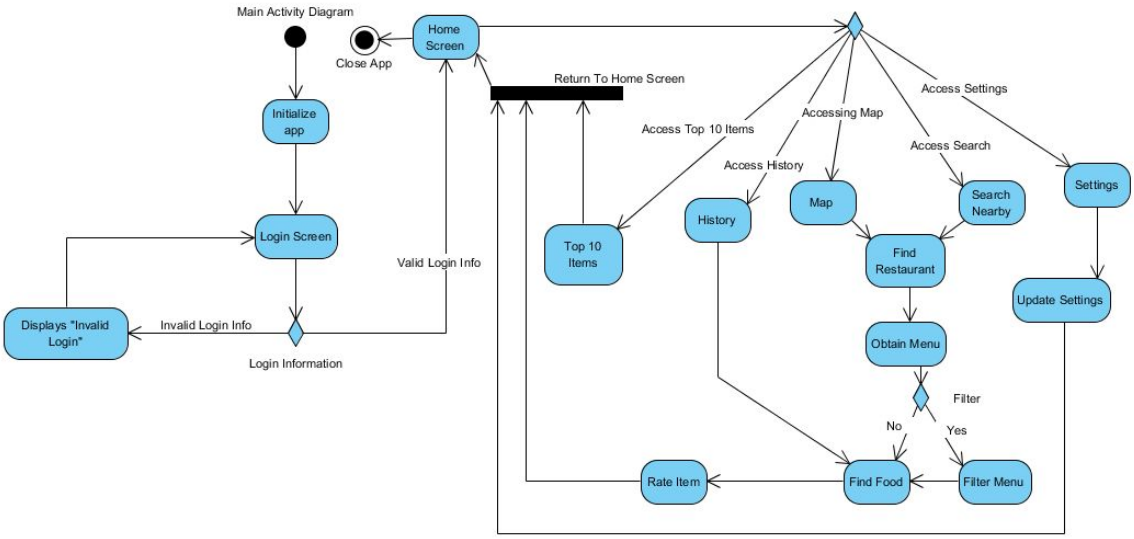
- Popular enough for users to populate database, improving the reliability and trustworthiness of the application

5. UML Diagrams

5.1 Use Case Diagram



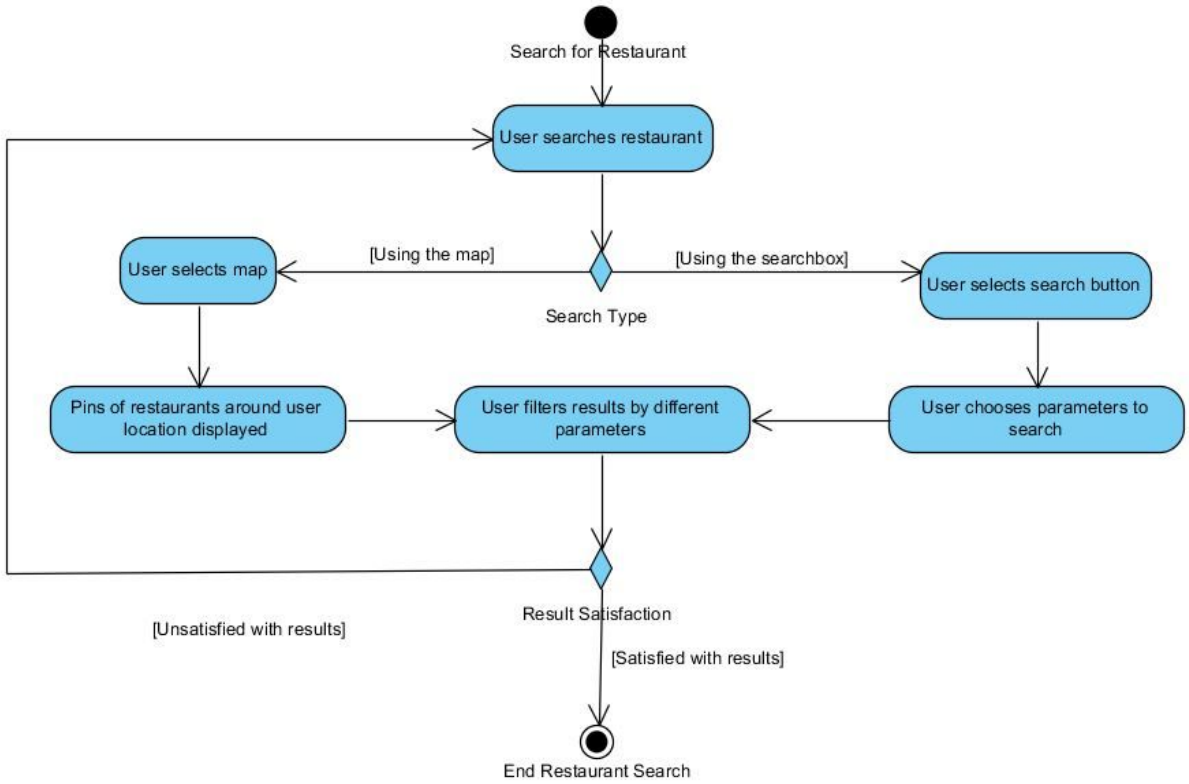
5.2 Main Activity Diagrams



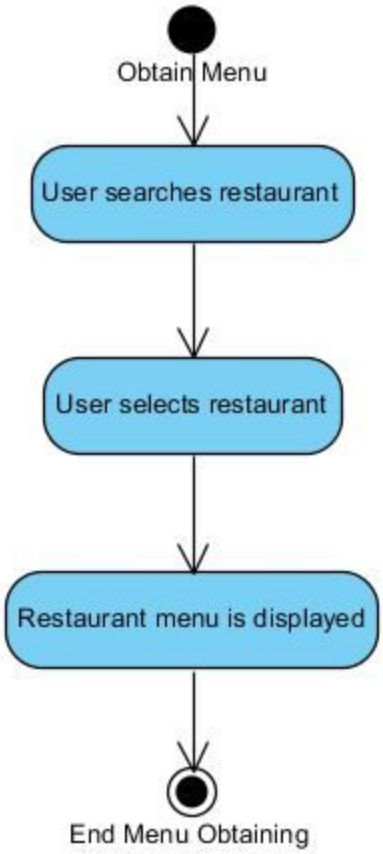
Activity Diagram - Main Activity Diagram

Details the basic functions of the application.

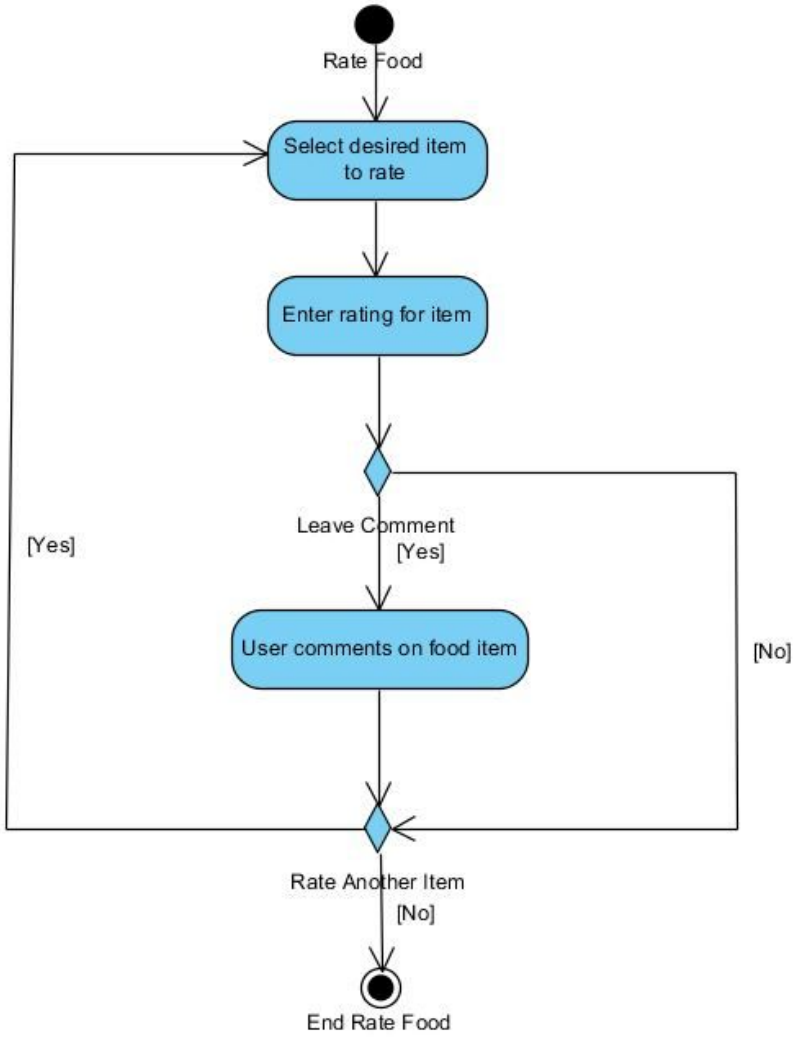
5.3 Individual Activity Diagrams



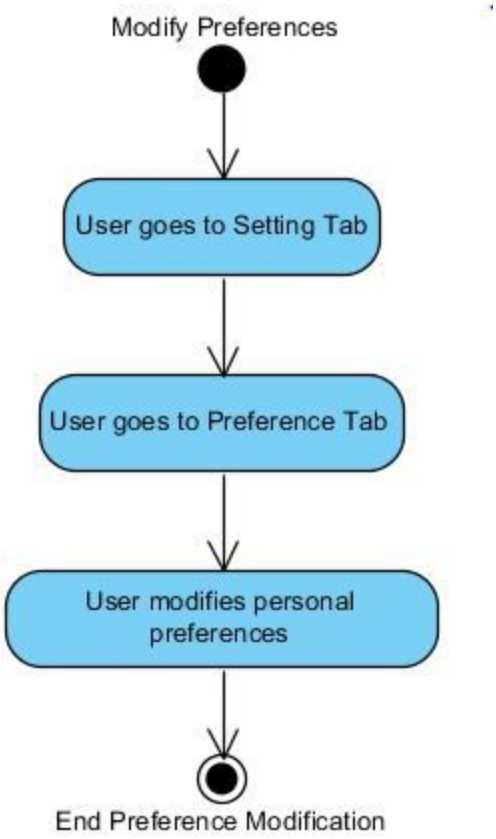
Use Case Scenario - Find Restaurant



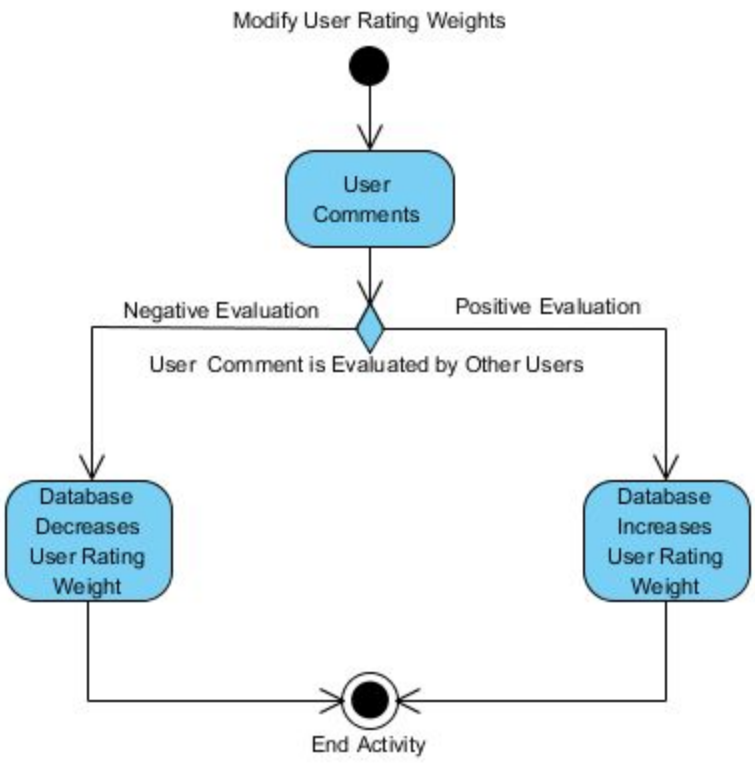
Use Case Scenario - Obtain Menu



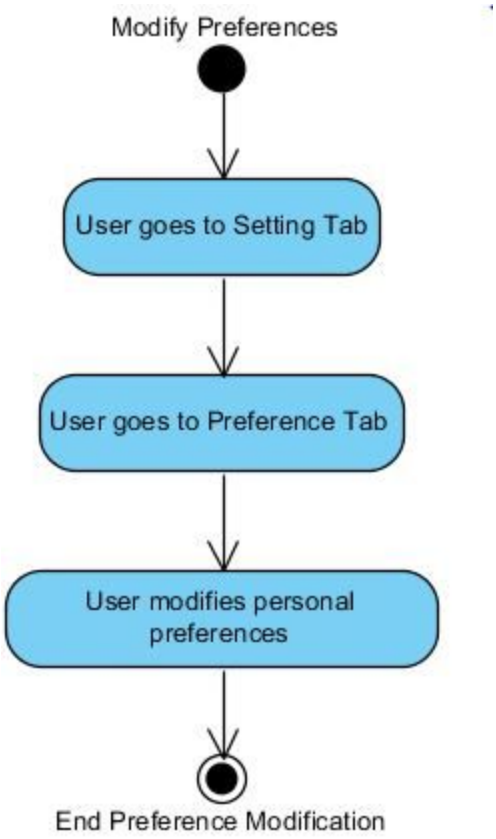
Use Case Scenario - Rate Food



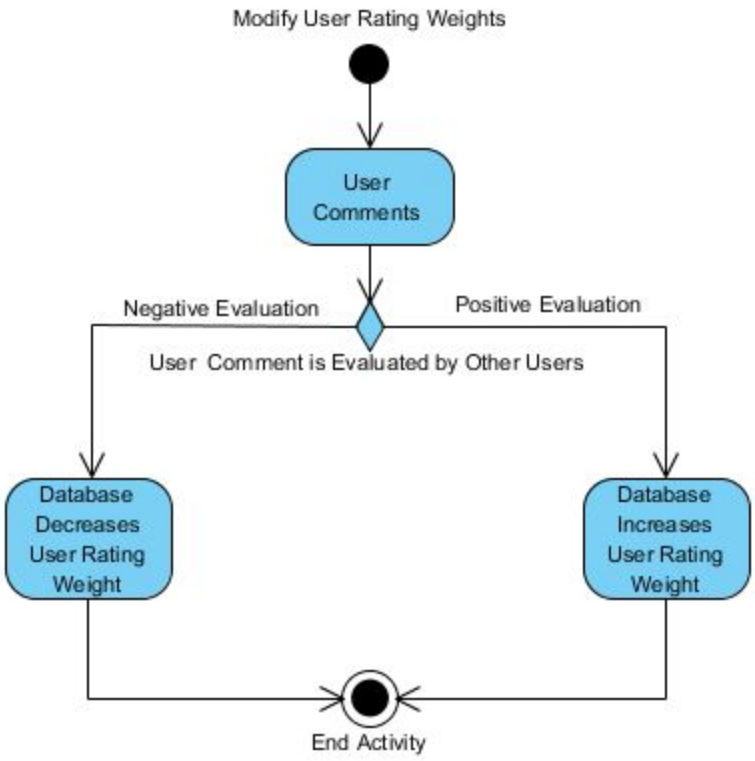
Use Case Scenario - Modify Preferences



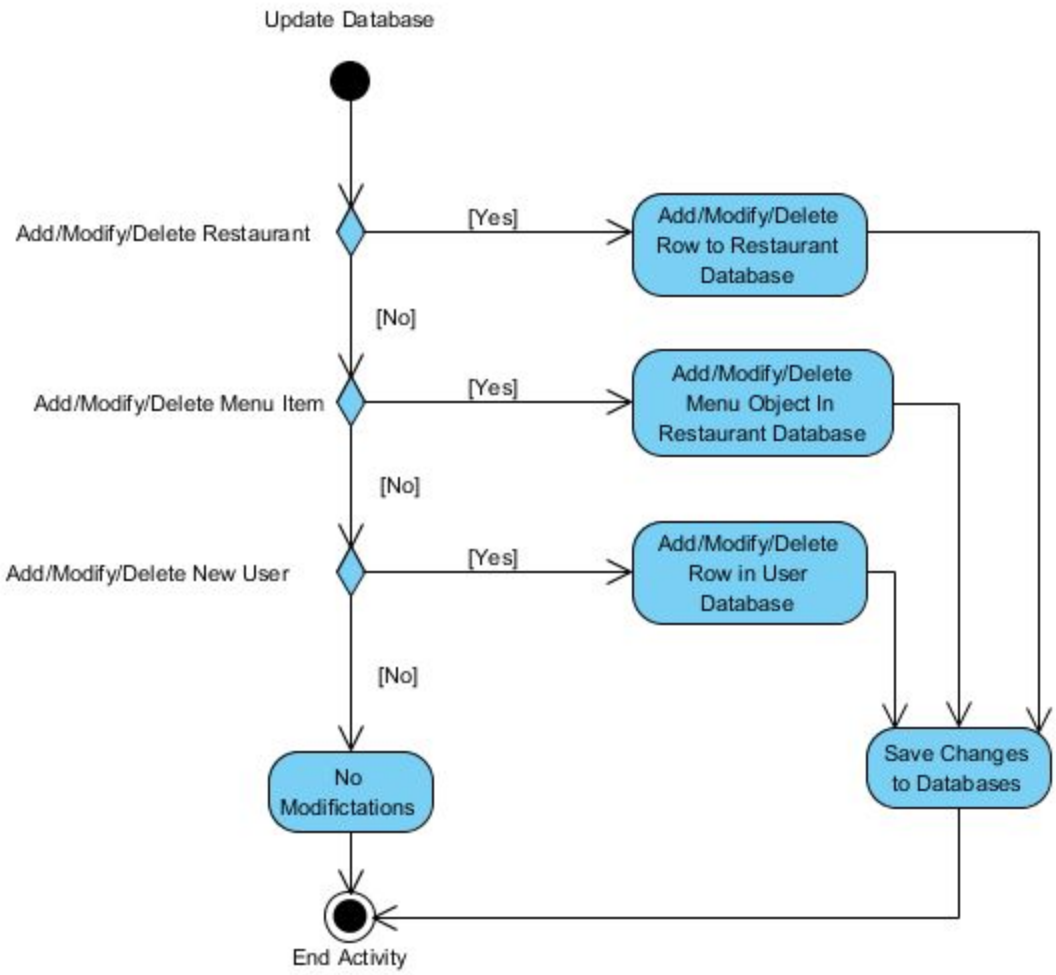
Use Case Scenario - Modify User Weights



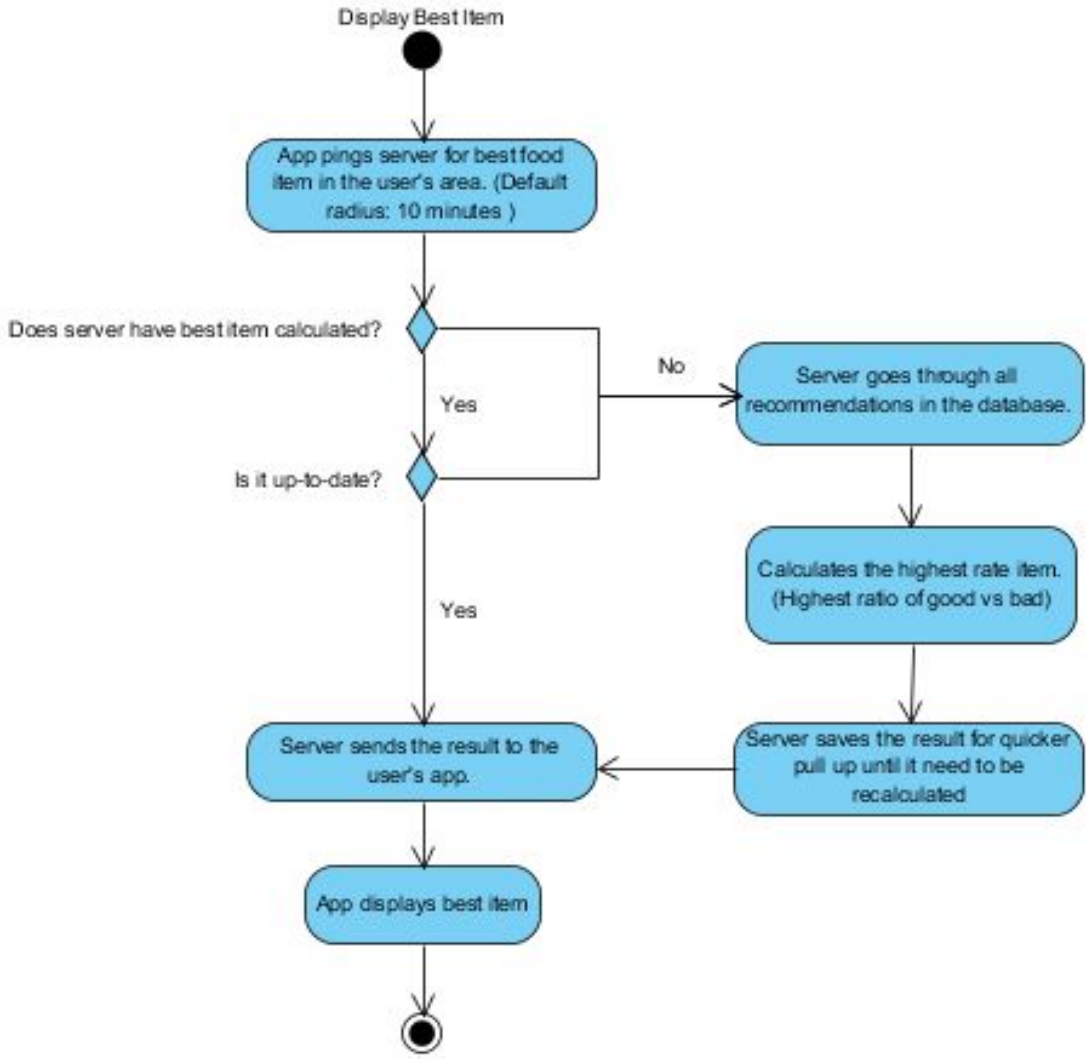
Use Case Scenario - Modify Preferences



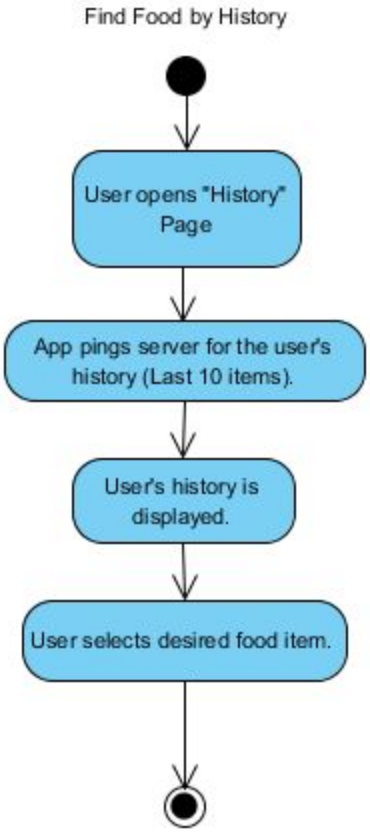
Use Case Scenario - Modify Rating Weights



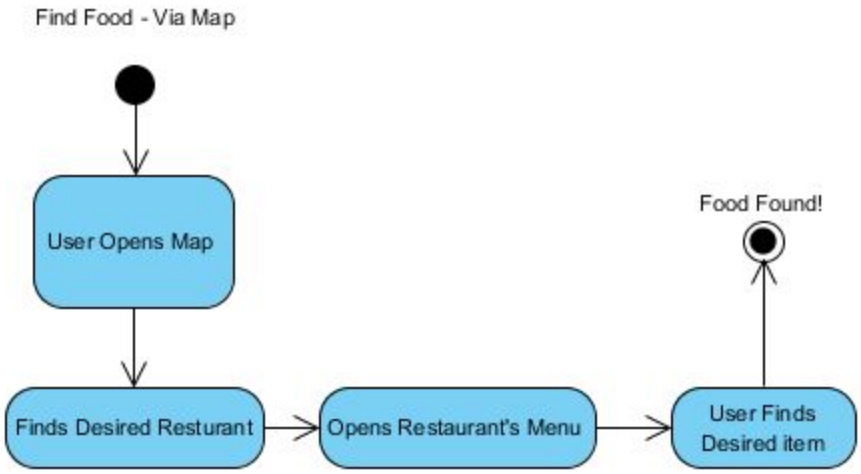
Use Case Scenario - Update Database



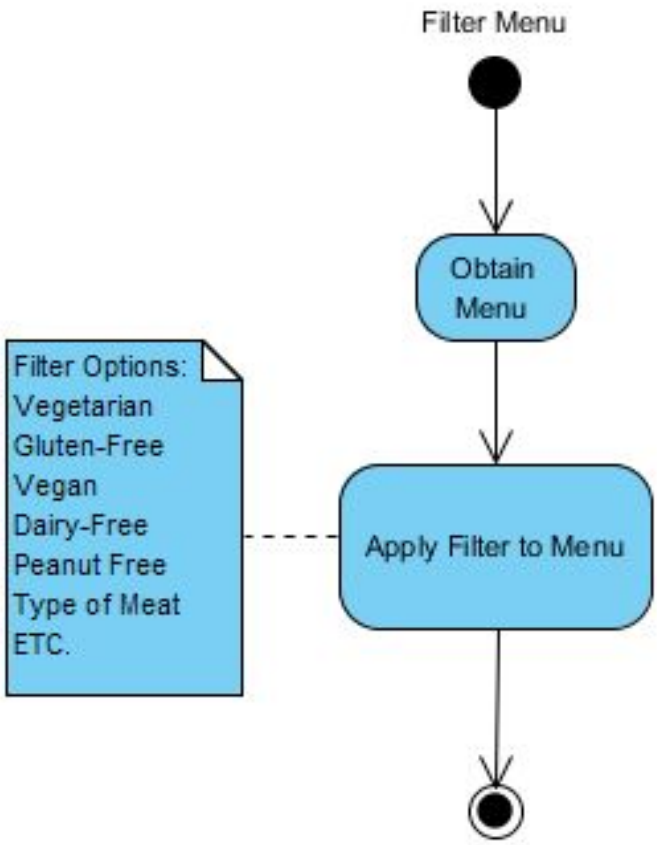
Use Case Scenario - Display Best Item



Use Case Scenario - Find Food by History

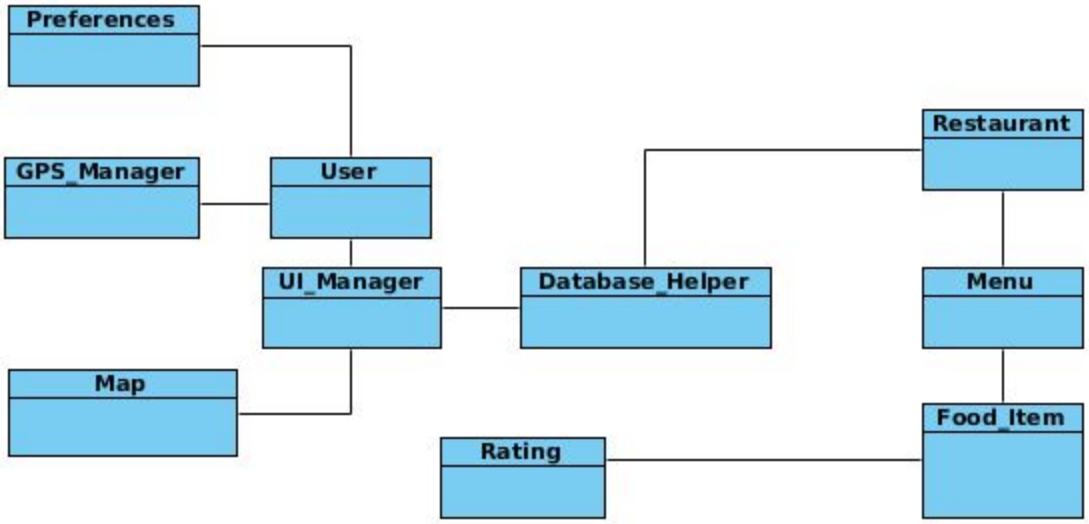


Use Case Scenario - Find Food using Map



Use Case Scenario - Filter Menu

5.4 Class Diagram



High-level Class Diagram – Android FlavorTown App