

# Functional and Non – Functional Requirements

## 1. User Account Registration

- 1.1 User must register with an email not already in the database
- 1.2 User must register with a username not already in the database
- 1.3 User must register with a password of at least 8 characters long
- 1.4 System validates that all fields are entered correctly
- 1.5 System validates that there are no conflicts with the database
  - 1.5.1 System shows an invalid prompt if there are conflicts
  - 1.5.2 System requests user to address conflicts
- 1.6 Account System must record new account in database

## 2. User Account Login

- 2.1 User must login with username and password
- 2.2 System validates that all fields are entered correctly
- 2.3 System validates that information entered matches with database
- 2.4 System redirects user to the main page after successful validation
- 2.5 If username entered is not in database, system will inform user that the username inputted was incorrect
- 2.6 If the username entered is in the database but the password entered is wrong, System will inform User of the error.
  - 2.6.1 User is allowed a total of five tries to input the correct password

## 3. Account Recovery

- 3.1 System sends an email verification associated with that username after the fifth failed attempt to reset the User's password
  - 3.1.1 E-mail verification link expires 5 minutes after e-mail was sent
- 3.2 Users are able to reset their password by clicking on "Forgot your password?" button on login screen
  - 3.2.1 System sends an email to the user to allow them to reset their password
  - 3.2.2 E-mail verification link expires 5 minutes after e-mail was sent

3.3 Account System must be able to change user's password in database

#### **4. Location Service**

4.1 System must be able to gather the User's location through their device's location function

4.2 System must allow User to input their location manually

#### **5. Home Page**

5.1 User must be able to navigate to the find nearest restaurants page.

#### **6. Map**

6.1 System must display a map, centred on the location the User has entered/provided by the location service

6.1.1 Map shows area around User in 3 kilometre radius

6.2 User must be able to scroll through the map

6.3 User must be able to zoom in and out of the map

#### **7. View User's Reviews**

7.1 System must display all reviews made by User

7.2 System must allow User to edit review made by User

7.3 System must allow User to delete review made by User

#### **8. Review Making**

8.1 User must be able to write reviews for restaurants

8.1.1 Reviews are limited to 300 characters long

8.2 User must be able to add ratings to restaurants

8.2.1 Ratings are on a scale from 1 to 5

8.3 User must be able to edit reviews

8.4 User must be able to edit ratings.

#### **9. View Nearby Restaurants**

9.1 System must be able to retrieve restaurant information from database provided

9.2 System must be able to display restaurants in a 3 kilometre radius from the location specified by User

- 9.2.1 The displayed restaurants must show their cuisine type, proximity and ratings
- 9.3 User must be able to input a restaurants name manually to view its information
- 9.4 The restaurants should be displayed on the map overlay
- 9.5 System must be able to filter the restaurants to display
  - 9.5.1 The filters are “cuisine” , “proximity” or “rating”
  - 9.5.2 Proximity must range from 0.5 kilometre to 5 kilometre
- 9.6 System must be able to display a random restaurant in a 3 kilometre radius if the User selects the “random” button
  - 9.6.1 The random button takes in to account any filters applied on the System by the User
- 9.7 System must display the map as specified in section 5

## **10. User Profile Page**

- 10.1 User must be logged in to their account to access this page.
  - 10.1.1 System must redirect users to login page if they are not logged in
  - 10.1.2 System must redirect users back to profile page after successful login
- 10.1 User must be able to view information about his profile
- 10.2 User must be able to view their past reviews in a table. (section 6)
- 10.3 User must be able to update their particulars
  - 10.3.1 User must be able to update their email address
- 10.4 User must be able to change their password
  - 10.4.1 User must input their current correct password first before attempting to change their password
  - 10.4.2 New Password must be at least 8 characters long
  - 10.4.3 System will inform the user if password does not meet requirements
  - 10.4.4 If new password does not meet the password requirements, system will re-prompt the user to key in the new password again.

## **11. View Specific Restaurants**

- 11.1 User must be able to select a restaurant to view more information
  - 11.1.1 Information such as cuisine type, distance, rating and opening hours must be displayed
- 11.2 User must be able to read reviews left by other users
- 11.3 User must be able to add reviews to the restaurant
- 11.4 User must be able to add ratings to the restaurant
  - 11.4.1 Ratings are on a scale from 1 to 5

## **12. View Nearby Parking**

- 12.1 System must show available parking spaces that are at most 1 kilometre away from the restaurant
  - 12.1.1 System must have a filter to lower search radius up to 0.5 kilometres
- 12.2 User must be able to select a specific parking space from those displayed to navigate to.
- 12.3 System must display the number of available lots and total number of lots at parking space specified

## **13. Pathfinding**

- 13.1 User must be able to select "Get directions" at either the "Specific Restaurant" page or "View Nearby Parking" page
  - 13.1.1 System must redirect User to Google Maps, inputting the location for the User

## **14. Frequently Asked Questions (FAQ)**

- 14.1 System must be able to display frequently asked questions

## **15. Non-functional Requirements**

- 15.1 The system must be able to support up to 100 concurrent users
- 15.2 The system must take up to 3 seconds to load under normal network conditions
- 15.3 The system must be supported by the common web-browsers used
- 15.4 The system must scale according to the screen size of the device used by the User
- 15.5 The database must support standard SQL/MySQL queries