



Love Food

National College of Ireland

BSc in Computing

2016/2017

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Love Food

Technical Report



National
College of
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Technical Report

Document Control

Revision History

Date	Version	Scope
11/12/16	1.0	Requirement Specification
04/05/17	2.0	Testing

Distribution List

Name	Title	Version
Cristina Hava Muntean	Supervisor	1.0
Cristina Hava Muntean	Supervisor	2.0

Related Documents

Title	Comments
-	-

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Executive Summary

Love Food was developed with the interests of helping ease the pressures of cooking and meal times. Users can search a massive database for meals of all kinds, receive a list of ingredients and also help plan their day with meal lists, recipes list and cooking timers. The aim is to help improve people's cooking skills and also relieve stress from both the planning and the cooking itself.

I have researched different API's for source code of cook books, recipes and foods and I have tested many of them. The application has been thoroughly thought out but different functionalities were added along the development course.

The application was developed using Android Studio, Firebase authentication, database, and storage, JSON, Google Services API and Food2Fork API.

1 Introduction

This is the Technical Report for my application which is called 'Love Food', it will source both as an application for people to learn how to cook but also to help those who wish to find a meal but aren't sure the ingredients or the guidelines for cooking said meal. The following document will help describe all aspects of the application.

1.1 Background

The reason I am developing this application is because everybody loves food, and I know everybody has the same habits of looking in the cupboard or the fridge and thinking "Oh, there's nothing to eat", when in fact there is a lot to eat we just need to know what.

This application allows users to see beyond the single food products and see a whole meal. It allows the users to learn new recipes and cooking methods and even help those who are trying to be healthy.

The application isn't aimed at a certain group of users', its aimed at everybody.

1.2 Aims

The aims of this project are to create an application that will help users to cook using recipes and instructions and only with the items and foods they've listed as available to them for cooking. It is targeted at users from 13 years and up because it requires the use of ovens, stoves, or other cooking equipment. The app will be made free to play on the app store.

The application will use Fork2Food API which was found online. It will use this to pull a full list of ingredients and recipes for the user to choose from when deciding on foods to cook. The users can then save their favorite recipes into a 'Favorites' section on the application to refer back to at a later date.

The main constraints for this application were the integration of viable API's and the time constraints set out for the deliverables throughout the year.

1.3 Technologies

Android Studio: The IDE used to create all the layouts and class files for the application. This is the environment used to help hold the application together with all its features.

JAVA: This is the programming language supported in Android Studio. This is a class based, object oriented language.

Firestore: This is a mobile and web application development platform. This is used for storage of items and the database. It also handles authentication of users.

Food2Fork: This is a recipe and foods API that holds over 350,000 recipes, images, and titles.

Google API: The Google API is used for maps and searching of nearby stores.

Android Device: An android mobile is used for the testing and running of the application to confirm that features and designs are correct.

Git: Git is used for backing up the files and version control on a git repository.

1.4 Structure

This will provide a brief overview of each section.

The Introduction section explains the background, aims and technologies used for the application.

The System section outlines the requirements, design and architecture, the implementation of main functions, the GUI and testing of all features.

The Conclusion section contains a short summary of all of the interesting things I may have learned during the development of the application along with possible opportunities or limits the application may have.

The Further development or research section outlines possible scenarios that I could implement going forward with development beyond this point.

The References section outlines all of my key resources that have been used during development of the application.

The Appendix contains all other details surrounding the application, such as the Project proposal and the Monthly Journals that have been filled out during development.

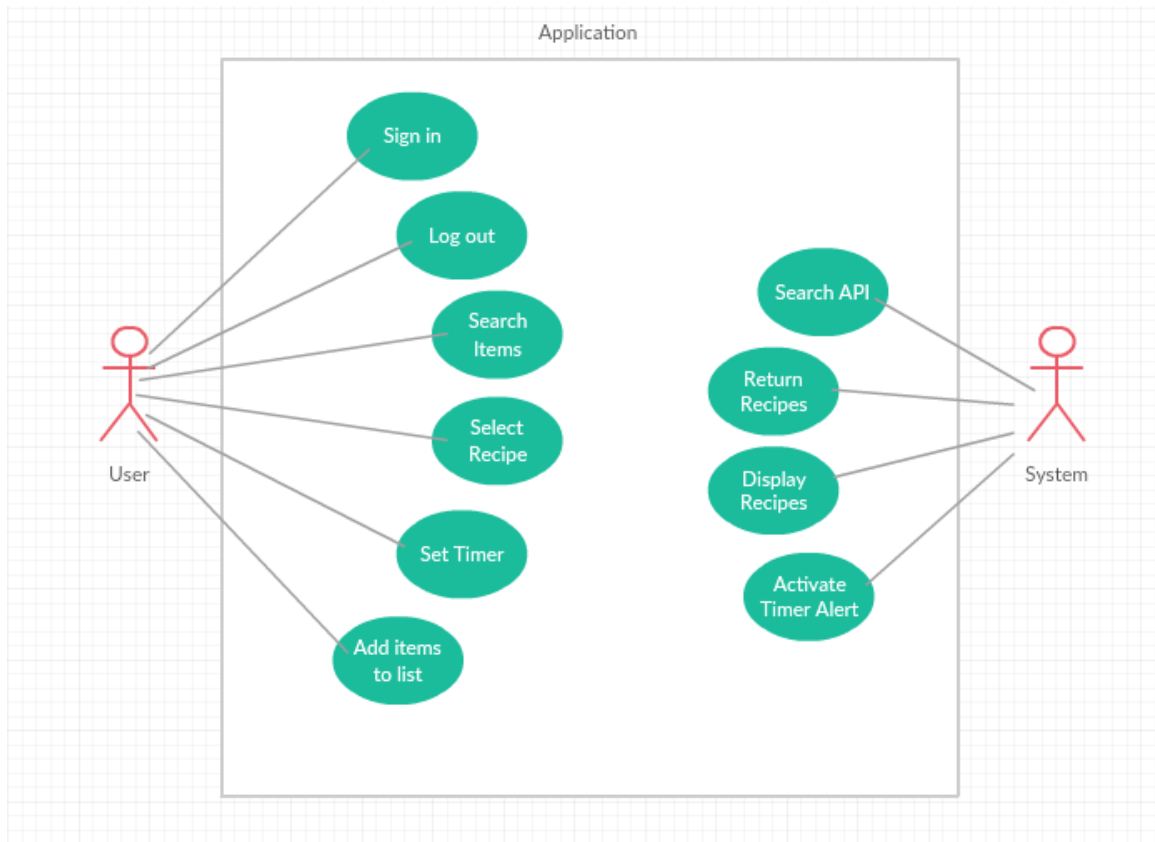
2 System

2.1 Requirements

2.1.1 Functional requirements

- User
 - The system will allow the user to create a new account using firebase
 - The system will allow the user to sign into the app using their firebase authentication
 - The system will allow the user to sign out of their account
 - The system will allow a user to input foods or items into the food search bar
 - The system will allow the user to select from a list of recipes
 - The system will allow the user to set a timer
 - The system will allow the user to add recipes or foods to favorites
 - The system will allow users to search nearby stores
 - The system will allow users to upload and store images
- System
 - The system will take the items inputted and search using the API
 - The system will return a list of recipes containing the food items previously given
 - The system will output the recipe and cooking instructions to the user
 - The system will store the users favorites to the database and retrieve them
 - The system will store images and retrieve them from the database

2.2 Use Case Diagram



2.2.1 Functional Requirement 1 <User Firebase Registration>

2.2.1.1 Description & Priority

This requirement allows the user to register an account with Firebase. It will allow users to log in.

2.2.1.2 Use Case

Scope

The scope of this use case is to allow the user to create an account using Firebase.

Description

This use case describes the user will register an account

Flow Description:

Precondition

The user has downloaded and installed the application.

The user has an internet connection.

The has a valid email address.

Activation

This use case starts when the user selects register new account.

Main flow

1. The system displays the login screen with option to register new account
2. The user selects register new account
3. The user enters their email and password
4. The system verifies the information
5. The information is stored within Firebase
6. The system logs the user into the application

Alternate flow

A1: Invalid Information

1. The system informs the user of the error
2. The user corrects the error in information
3. The use case continues at position 4 of the main flow

Exceptional flow

E1: User does not have valid email address

1. The system returns an error of invalid details
2. The user creates an email address
3. The use case continues at position 3 of the main flow

Termination

The system informs the user they're logged in

Post condition

The system moves the user to the following menu page

2.2.2 Functional Requirement 1 <User Firebase Sign In>

2.2.2.1 Description & Priority

This requirement allows the user to sign in using an account stored within Firebase. It will also help track their meals and recipes.

2.2.2.2 Use Case

Scope

The scope of this use case is to allow the user to sign in using a Firebase authentication

Description

This use case describes the user will sign into the application.

Flow Description:

Precondition

The user has downloaded and installed the application.

The user has an internet connection.

The user has registered an account.

Activation

This use case starts when the user selects login using their firebase account.

Main flow

1. The system displays the login screen with option for email and password
2. The user enters in the required information
3. The user submits the information
4. The system verifies the information
5. The system logs the user into the application

Alternate flow

A1: Invalid Information

1. The system informs the user of the error
2. The user corrects the error in information
3. The use case continues at position 3 of the main flow

Exceptional flow

E1: User does not have Firebase account

1. The system returns an error of invalid details
2. The user creates a Firebase account
3. The use case continues at position 2 of the main flow

Termination

The system informs the user they're logged in

Post condition

The system moves the user to the following menu page.

2.2.3 Functional Requirement 2 <Search Items>

2.2.3.1 Description & Priority

This requirement allows the user to search using the API to find foods or recipes.

2.2.3.2 Use Case

Scope

The scope of this use case is to search the API for foods or recipes

Description

This use case describes the user will search the API

Flow Description:

Precondition

The user is logged into the application and on the main menu.

Activation

This use case starts when the user clicks the search recipes button.

Main flow

1. The system identifies the user has selected the search field
2. The user searches for an item or recipe
3. The system returns a list of possible items or recipes
4. The user selects from the returned list the item they want

Alternate flow

A1: Invalid Item

1. The system returns an error because of a misspelled or invalid item
2. The user enters in a new item
3. The use case continues at position 3 of the main flow

Exceptional flow

E1: No item found

1. The system returns an error of no item found
2. The user searches for a new item
3. The use case continues at position 3 of the main flow

Termination

The system returns a full list of items for the user to select from

Post condition

The user has selected their item and is brought to the ingredients screen.

2.2.4 Functional Requirement 3 <Display Recipe>

2.2.4.1 Description & Priority

The system returns the selected recipe from the foods API.

2.2.4.2 Use Case

Scope

The scope of this use case is to return recipes from the foods API.

Description

This use case describes the system will return a valid recipe from the API.

Flow Description:

Precondition

The system has received the recipe information it must return.

Activation

This use case starts when the user selects the recipe they wish to view.

Main flow

1. The user selects the recipe they want
2. The system sends the user to the details page
3. The system returns the recipe and instructions to the user
4. The user can view the recipe

Alternate flow

A1: No recipe is returned

1. The system does not return a recipe
2. The user enters in a new recipe
3. The use case continues at position 1 of the main flow

Exceptional flow

E1: No recipe found

1. The system returns an error of no recipe found
2. The user searches for a new recipe
3. The use case continues at position 2 of the main flow

Termination

The system returns the recipe details and ingredients the user has selected

Post condition

The user is on the recipe instructions page and is ready to cook.

2.2.5 Functional Requirement 4 <Set Timer >

2.2.5.1 Description & Priority

This requirement allows the user set a reminder timer when cooking foods.

2.2.5.2 Use Case

Scope

The scope of this use case is to set a timer on while cooking foods.

Description

This use case describes the user will set a timer.

Flow Description:

Precondition

The system is in on the home page.

Activation

This use case starts when the user has begun cooking and is on the main menu.

Main flow

1. The user selects the timer option
2. The system allows the user to set a time in minutes
3. The user confirms the time option and begins counting down
4. The system alerts the user once the time has allotted.

Alternate flow

A1: Invalid time

1. The system returns an error because the user has not entered a valid time
2. The user enters in a new time
3. The use case continues at position 3 of the main flow

Termination

The system alerts the user when the time has finished counting down.

Post condition

The system returns the user to the recipe page.

2.2.6 Functional Requirement 5 <Favourites List>

2.2.6.1 Description & Priority

This requirement allows the user to add items to a favourites list.

2.2.6.2 Use Case

Scope

The scope of this use case is to add recipes to a favourites list.

Description

This use case describes the method of searching and adding favourites.

Flow Description:

Precondition

The system is searching for items or recipes.

Activation

This use case starts when the user selects a recipe returned from the API.

Main flow

1. The system identifies the user has selected a recipe
2. The user selects favourite button on the details screen
3. The system confirms the recipe has been added to the list
4. The user can access their favourite from the main menu

Alternate flow

A1: No valid information

1. The system returns in invalid recipe
2. The system cannot add blank information
3. The system returns an error
4. The use case continues at position 1 of the main flow

Termination

The system adds the item to the favourites section.

Post condition

The user can continue to the details page.

2.2.7 Data requirements

The data requirements show how the data is stored and used in the application.

Firebase was used to store all authentication information from the user, such as passwords and email. The users favourite meals and images are also stored within Firebase and is then retrieved back for display within the application.

Firebase stores all this information in a cloud database.

2.2.8 User requirements

- The system should start and bring the user to the login screens
- The user should be given a choice to log in or create a new account
- The user should have access to all elements of the application no matter what device they use
- The user can set a timer for when they're cooking
- The user can access the recipes and foods available through the source API
- The user can take a picture of their foods and save it
- The user can select their favourite meals and store them
- The user can search nearby stores using Google Places API

2.2.9 Usability requirements

The application provides introduction slides on first start up explaining briefly the features available and how to use said features. The application has been developed to help outline each section and create a unique feel in each so that the user does not become confused with a previous section of the application. The application uses real-world language and expression to help ease certain processes the user undertakes. The system attempts to handle all processes effectively without much effort required from the user. The colour and navigation remains consistent throughout the application as to not throw the user off. Most possible user errors are handles to attempt to minimise crashes or defects.

2.2.10 Non-Functional Requirements

This section outlines the non-functional requirements for the application system. The requirements outline how the system performs.

Availability requirement

- The application is available to all users who have registered an account with the system.
- The application should be running 24/7 without downtime.
- All maintenance or future releases should require zero downtime.

Recover requirement

- All user related information and items should be backed up in the database.
- All information should be recoverable from the database.

Security requirement

- The application validates the user's login credentials against those stored in the database before allowing access.
- The user's may only add or remove from their own images and favourites.
- The development team may only remove all items stored in the database.

Reliability requirement

- The authentication is stored within Google Firebase and should always be available.
- The search feature should always be available unless Food2Fork is down on their end.
- The maps nearby search should always be available unless Google API is down on their end.

Maintainability requirement

- With both APIs and Firebase, the services and system should be maintained a lot easier.

Portability requirement

- With the correct iOS team the application should be easily portable to other devices.

Reusability requirement

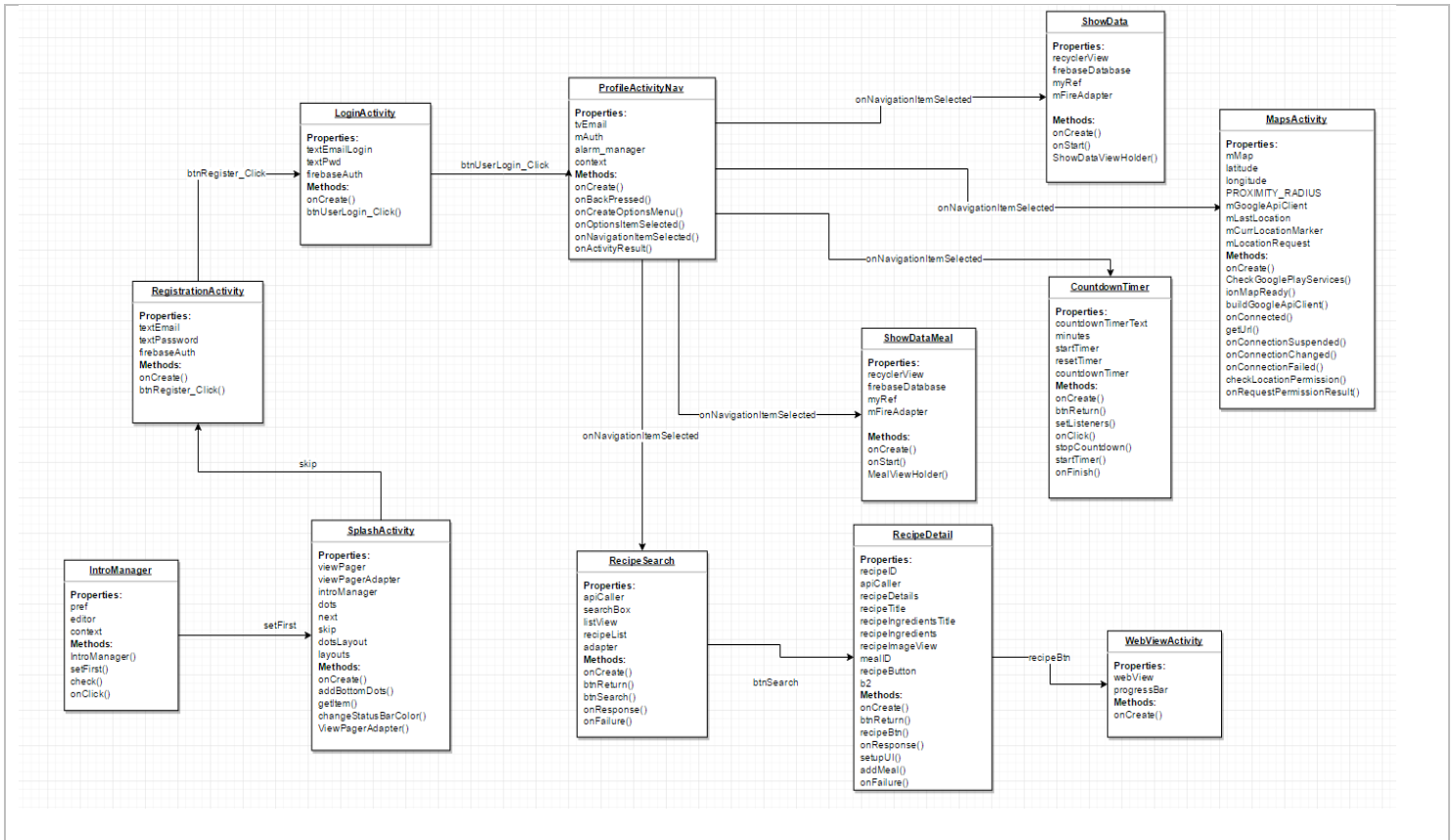
- The application can be continuously used and items stored in the database without a user limit.

Physical requirement

- The user will require a device with API level 18 and above to use all of the applications features.
- The user will require internet access.

2.3 Design and Architecture

2.3.1 Logical View



2.3.2 Software Architecture

The architecture of an android application attempts to follow a similar path to that of a typical MVC application pattern, although instead of using model view and controllers it groups the two into what is called ‘activities’.

Activity

An activity helps to represent a user interface class. These are packed together among each other to help create the UI of the application.

Service

These allow background threads to be ran without effecting any of the UI.

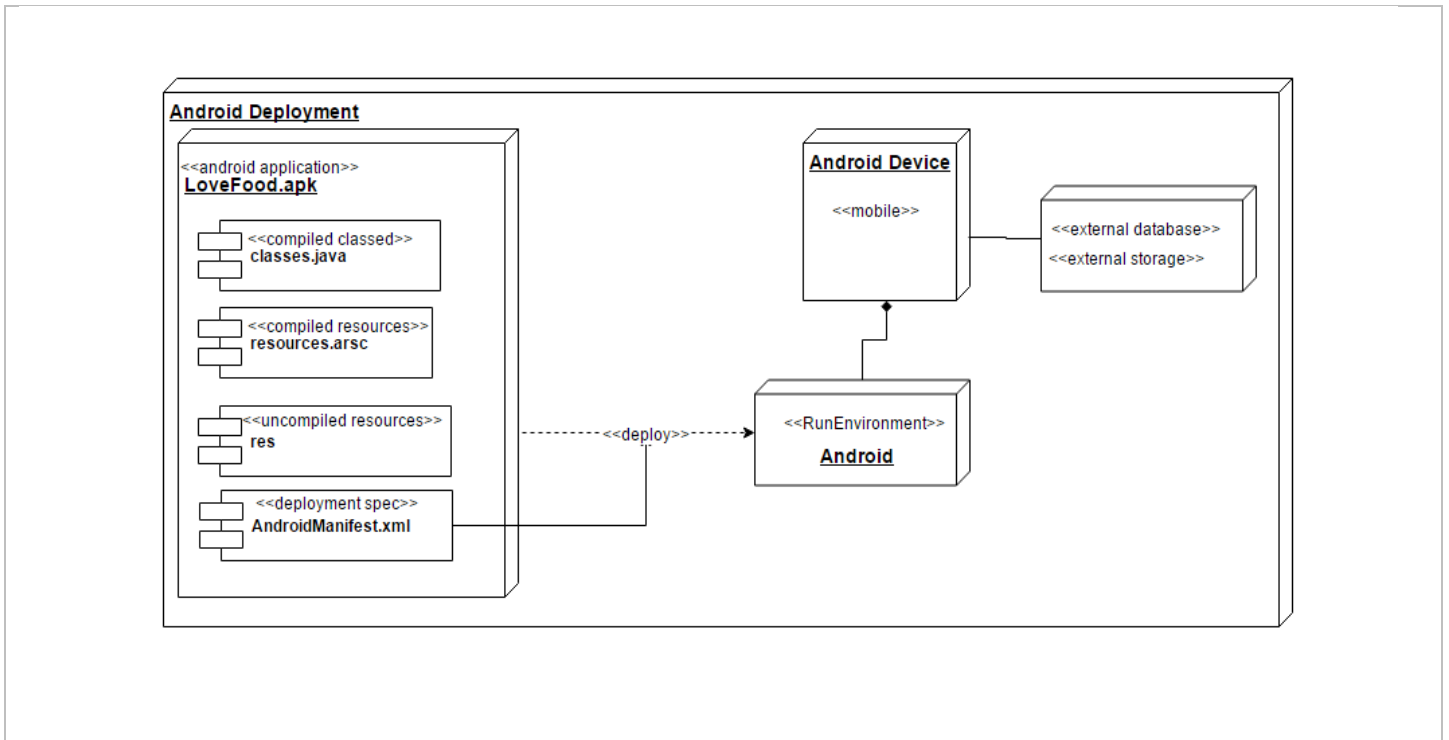
Content Provider

This takes hold in the way of SharedPreferences. Allowing data to be stored internally.

Broadcast Receiver

This helps to provide notifications to users by responding to system messages.

2.3.3 Deployment Diagram

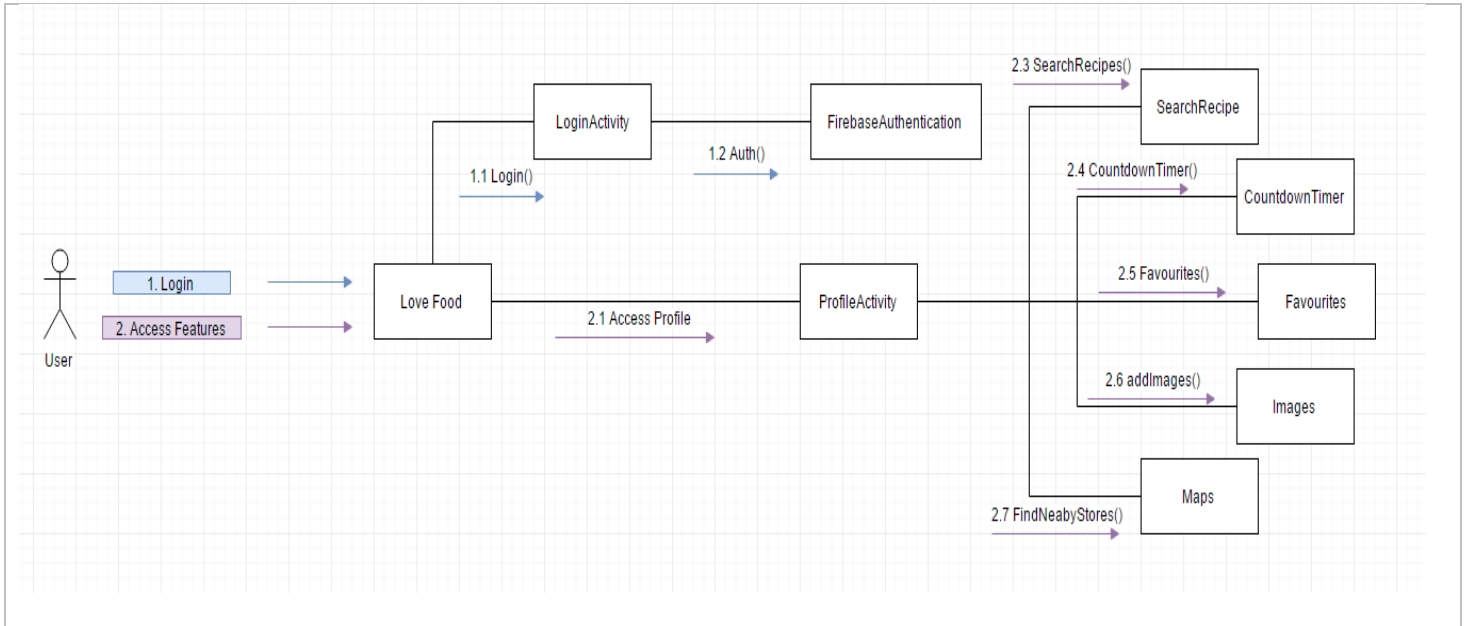


2.3.4 Security Architecture

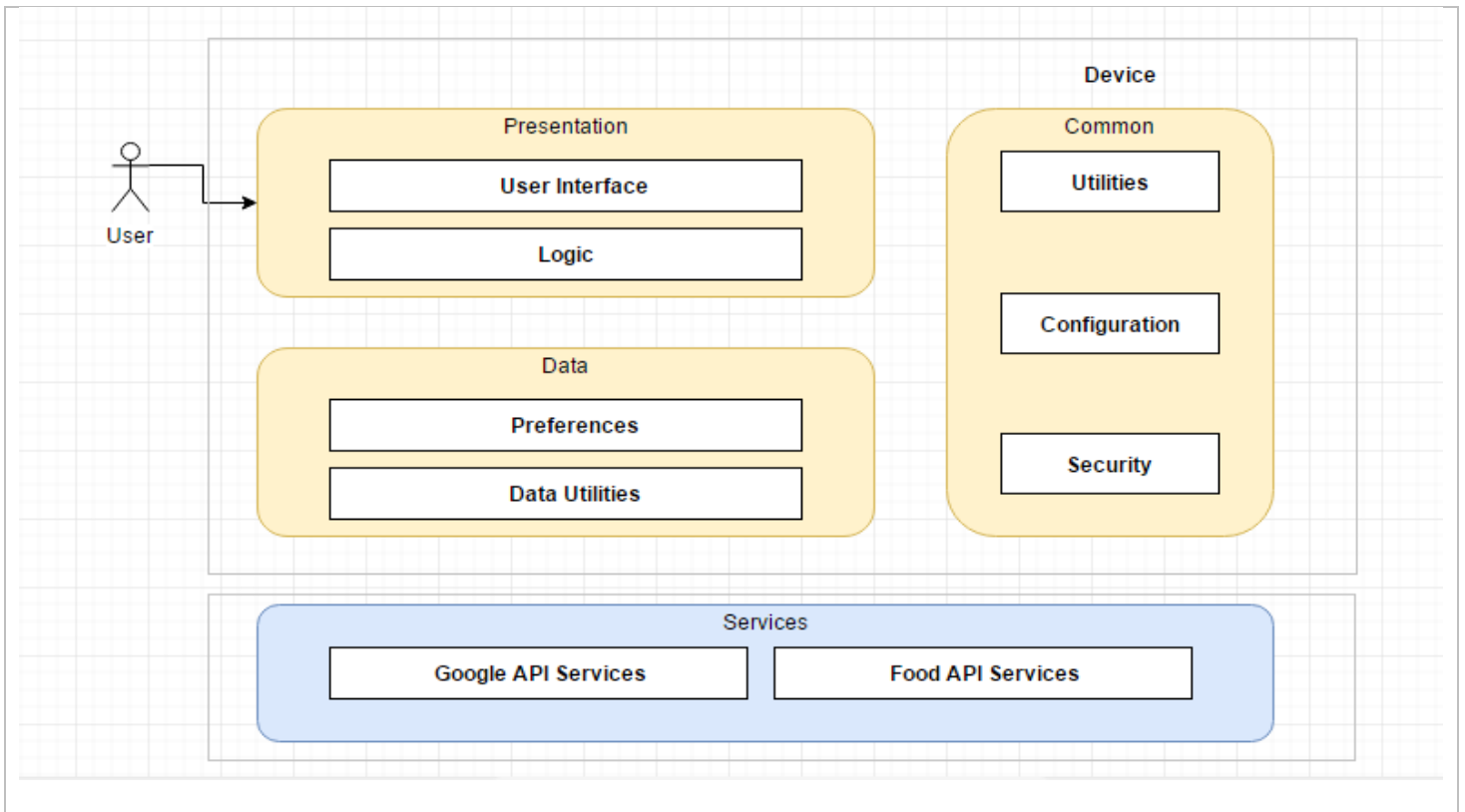
Android security architecture by default does not allow permission to perform actions or operations that may cause damage to the device or any of the other applications installed. Reading and writing of data is also set under certain permissions that need to be passed before any data can be accessed.

These permissions are set first inside of the applications Manifest.xml which will only request permission to access certain areas of the device, and the owner must first accept any permission requests before they can be executed.

2.3.5 Communication Architecture



2.3.6 Architecture Diagram



2.4 Implementation

The implementation sections will cover the main classes within the application and the functions that have been used for the development of the application.

2.4.1 Application Programming Interfaces

The Firebase API allows users to store information and data in real time, with options for read, write, update, and delete. Firebase prides itself on ease of use and access for users.

Food2Fork is a free to access API that offers developers access to over 350,000 recipes, images, ingredients, and further information URL's.

Google Places API'S allow users to search and access millions of place names, areas, and information.

Retrofit, a REST Client for android is used to help retrieve and upload JSON through a REST based web service.

```

dependencies {
    compile fileTree(include: ['*.jar'], dir: 'libs')
    androidTestCompile
    ('com.android.support.test.runner:0.5'){
        exclude group: 'com.android.support', module:
        'support-annotations'
    }
    androidTestCompile 'com.android.support.test:testing-
support-lib:0.1'
    androidTestCompile
    ('com.android.support.test.espresso:espresso-core:2.2.2'){
        exclude group: 'com.android.support', module:
        'support-annotations'
    }

    compile files('libs/PhotoUtil.jar')
    compile 'com.android.support:appcompat-v7:25.3.1'
    compile 'com.android.support:mediarouter-v7:25.3.1'
    compile 'com.android.support:design:25.3.1'
    compile 'com.google.firebase:firebase-auth:10.2.1'
    compile 'com.android.support:support-v4:25.3.1'
    compile 'com.google.android.gms:play-services:10.2.1'
    compile 'com.google.firebase:firebase-storage:10.2.1'
    compile 'com.google.firebase:firebase-database:10.2.1'
    compile 'com.firebase:firebase-client-android:2.4.0'
    compile "com.firebaseui:firebase-ui-storage:1.2.0"
    compile "com.firebaseui:firebase-ui-database:1.2.0"
    compile 'com.google.firebase:firebase-core:10.2.1'
    compile 'com.android.support:cardview-v7:25.3.1'
    compile 'com.squareup.retrofit2:retrofit:2.2.0'
    compile 'com.squareup.retrofit2:converter-gson:2.2.0'
    compile 'com.google.android.gms:play-services-
maps:10.2.1'
    compile 'com.squareup.picasso:picasso:2.5.2'
    compile 'com.android.support.constraint:constraint-
layout:1.0.0-alpha8'
    compile "com.android.support:recyclerview-v7:25.3.1"
    testCompile 'junit:junit:4.12'
}
apply plugin: 'com.google.gms.google-services'

```

2.4.2 Recipe Search

The main function of this application is for users to be able to search for all types of meals they may desire. The search was done using Food2Fork API and calls for titles, ingredients and images which are being made and retrieved using a modal view. Retrofit is used to help pull the information from the API transforming the JSON.

```
public void init() {
    Gson gson = new GsonBuilder()
        .setLenient()
        .create();

    Retrofit retrofit = new Retrofit.Builder()
        .baseUrl(BASE_URL)

        .addConverterFactory(GsonConverterFactory.create(gson))
        .build();

    apiService = retrofit.create(RecipeAPIService.class);
}

public void getRecipes(String food, Callback<RecipeList>
callback){
    Call<RecipeList> call = apiService.getRecipes(food);
    call.enqueue(callback);
}
```

Once we've received the information and its transformed we used our earlier set up Model.class and set the text and image areas with the content we've received from the API.

```
private void setupUI(Recipe recipeDetails) {
    if (recipeDetails != null) {
        recipeTitle.setText(recipeDetails.getTitle());

        //setting up format for details
        String ingredientText = "";
        for (String ingredient :
recipeDetails.getIngredients()) {
            ingredientText = ingredientText.concat(" -
").concat(ingredient).concat("\n");
        }
    }
}
```



```

    }
    recipeIngredients.setText(ingredientText);
    String url = recipeDetails.getImageUrl();
    Picasso.with(this).load(url).into(recipeImageView);
    recipeButton.setVisibility(View.VISIBLE);
    recipeIngredientsTitle.setVisibility(View.VISIBLE);
} else {
    recipeTitle.setText("Loading...");
    recipeButton.setVisibility(View.INVISIBLE);

recipeIngredientsTitle.setVisibility(View.INVISIBLE);
}

}

```

2.4.3 Countdown Timer

The countdown timer was an addition for users to keep track of their meals while cooking and without the addition of other applications. By setting the desired amount of minutes the timer ticks down until it hits zero and an alarm, notification and vibration occur. The user must first enter minutes into the EditText.

```

@Override
public void onClick(View v) {
    switch (v.getId()) {
        case R.id.startTimer:
            //If null then start timer
            if (countDownTimer == null) {
                String getMinutes =
minutes.getText().toString();//Get minutes
                //validate edittext
                if (!getMinutes.equals("") &&
getMinutes.length() > 0) {
                    int noOfMinutes =
Integer.parseInt(getMinutes) * 60 * 1000;//conversion into
milliseconds

                    startTimer(noOfMinutes);//start
countdown

startTimer.setText(getString(R.string.stop_timer)); //Change
Text

```

The above code uses a switch to check if the timer has started and if not what minutes are entered. It then converts the minutes into milliseconds.

```
public void onFinish() {
    countdownTimerText.setText("TIME'S UP!!"); //On finish
change timer text
    countdownTimer = null; //set CountdownTimer to null

startTimer.setText(getString(R.string.start_timer)); //Change
button text
    if(!mp.isPlaying()) {
        mp.start();
        v.vibrate(400);
    }
}
```

When the timer is up the alarm will initiate the sound and vibration to alert the user of their food being cooked.

2.4.4 Favourite Meal

This function allows users to select their favourite meals while browsing the API service. If a user selects a favourite it is then stored in the Firebase database and retrieved into another section of the application inside of a RecyclerView with an option to delete there selections.

```
public void onStart() {
    super.onStart();
    mFirebaseAdapter = new FirebaseRecyclerAdapter<Meal,
MealViewHolder>
        (Meal.class, R.layout.show_data_single_meal,
MealViewHolder.class, myRef) {

        public void populateViewHolder(final MealViewHolder
viewHolder, Meal model, final int position) {
            viewHolder.Info(model.getInfo());
            viewHolder.IngredTitle(model.getIngredTitle());
        }
    };
}
```

2.4.5 Firebase authentication

Firestore was used to store and authenticate users with their authentication system. If a user registers their information and then attempt to log in, the information is passed back and then given an `<AuthResult>`.

```
public void btnUserLogin_Click(View v) {
    final ProgressDialog progressDialog =
ProgressDialog.show(LoginActivity.this, "Please wait...",
"Processing...", true);

    (firebaseAuth.signInWithEmailAndPassword(textEmailLogin.getText().toString(),
textPwd.getText().toString())).addOnCompleteListener(new
OnCompleteListener<AuthResult>() {
        @Override
        public void onComplete(@NonNull Task<AuthResult>
task) {
            progressDialog.dismiss();

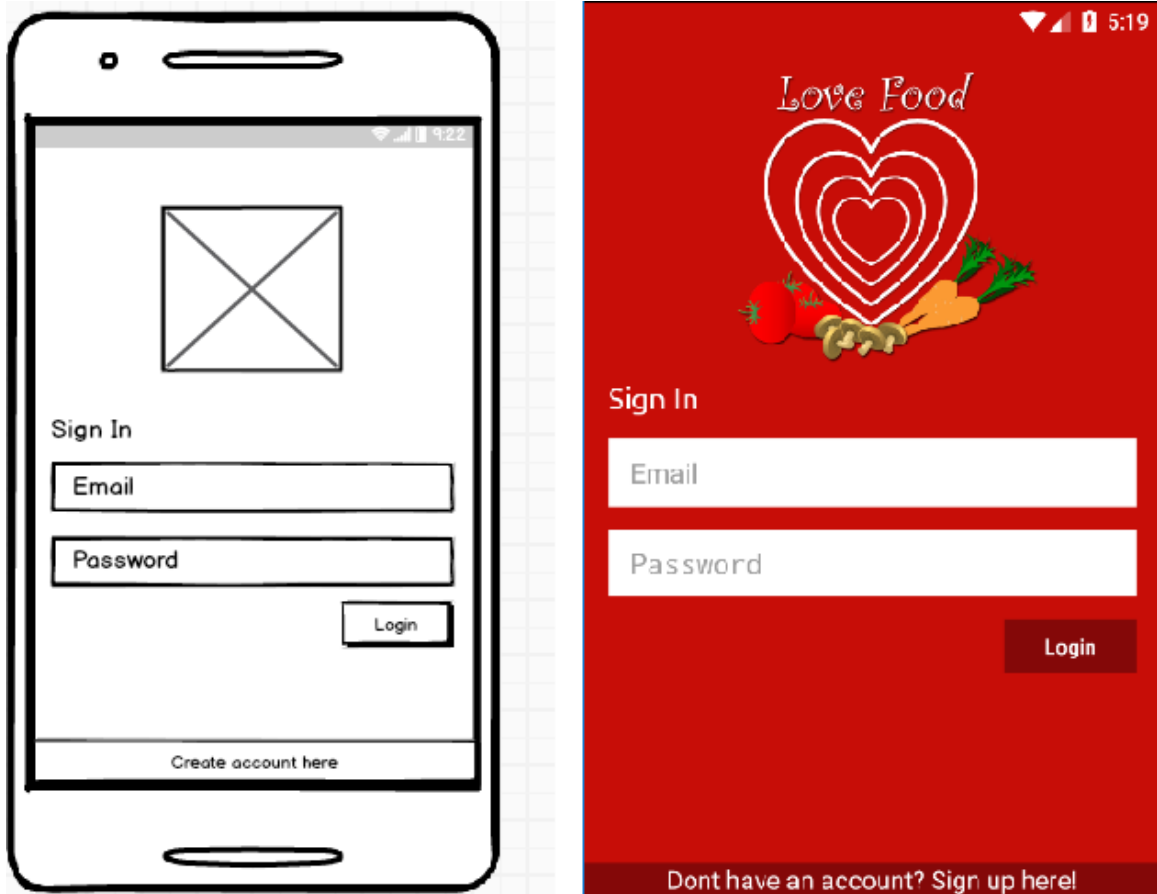
            if (task.isSuccessful()) {
                Toast.makeText(LoginActivity.this, "Login
Successful", Toast.LENGTH_LONG).show();
                Intent i = new Intent(LoginActivity.this,
ProfileActivityNav.class);
                i.putExtra("Email",
firebaseAuth.getCurrentUser().getEmail());
                startActivity(i);
            }
        }
    });
}
```

If the authentication is successful the user will be passed to a new intent with their authentication available for `getCurrentUser` on any of the following activities.

2.5 Graphical User Interface (GUI) Layout

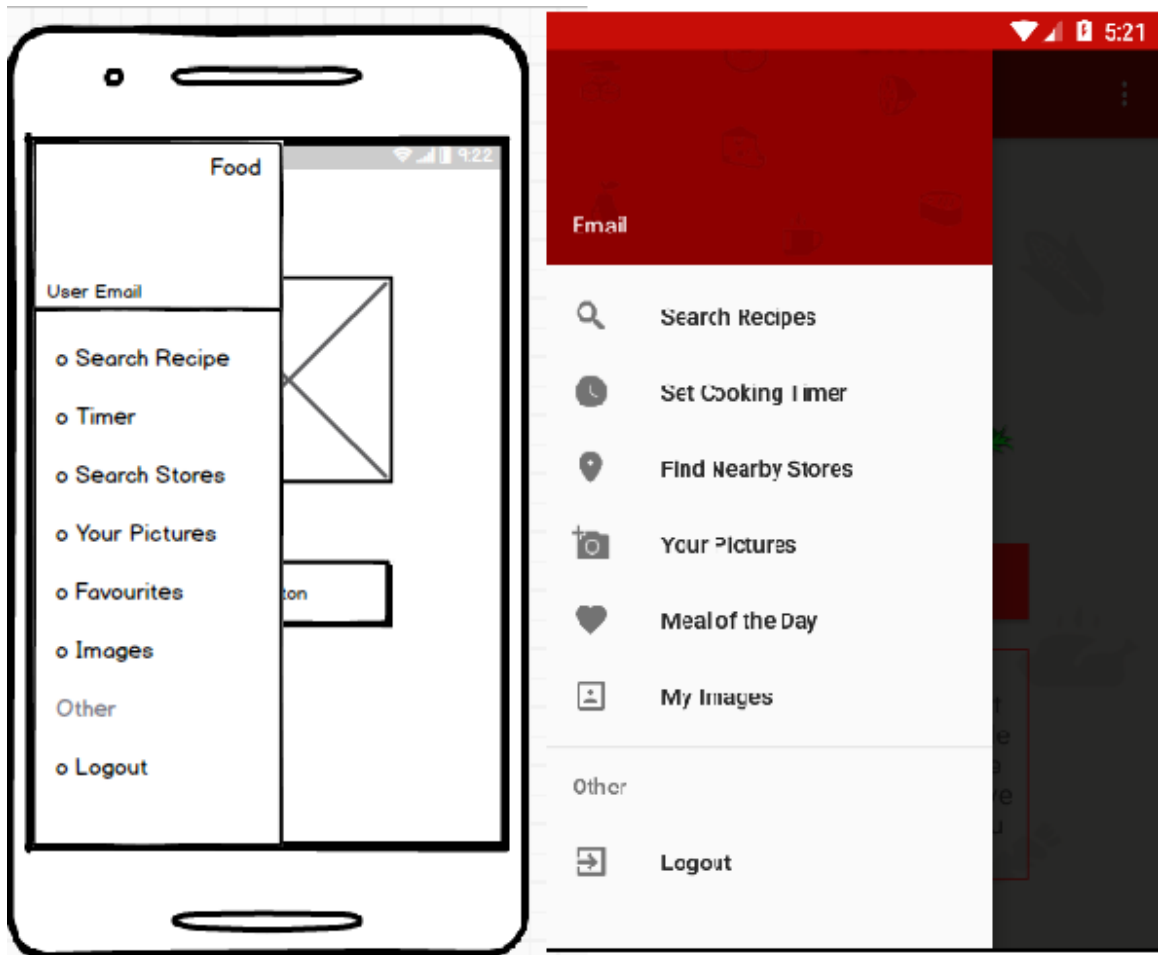
The GUI is created android layouts. Layouts are a visual structure for a UI, like an activity. Layouts are usually declared using XML elements. The elements on screen will be operated using touch and will be clearly defined.

2.5.1 Login Activity

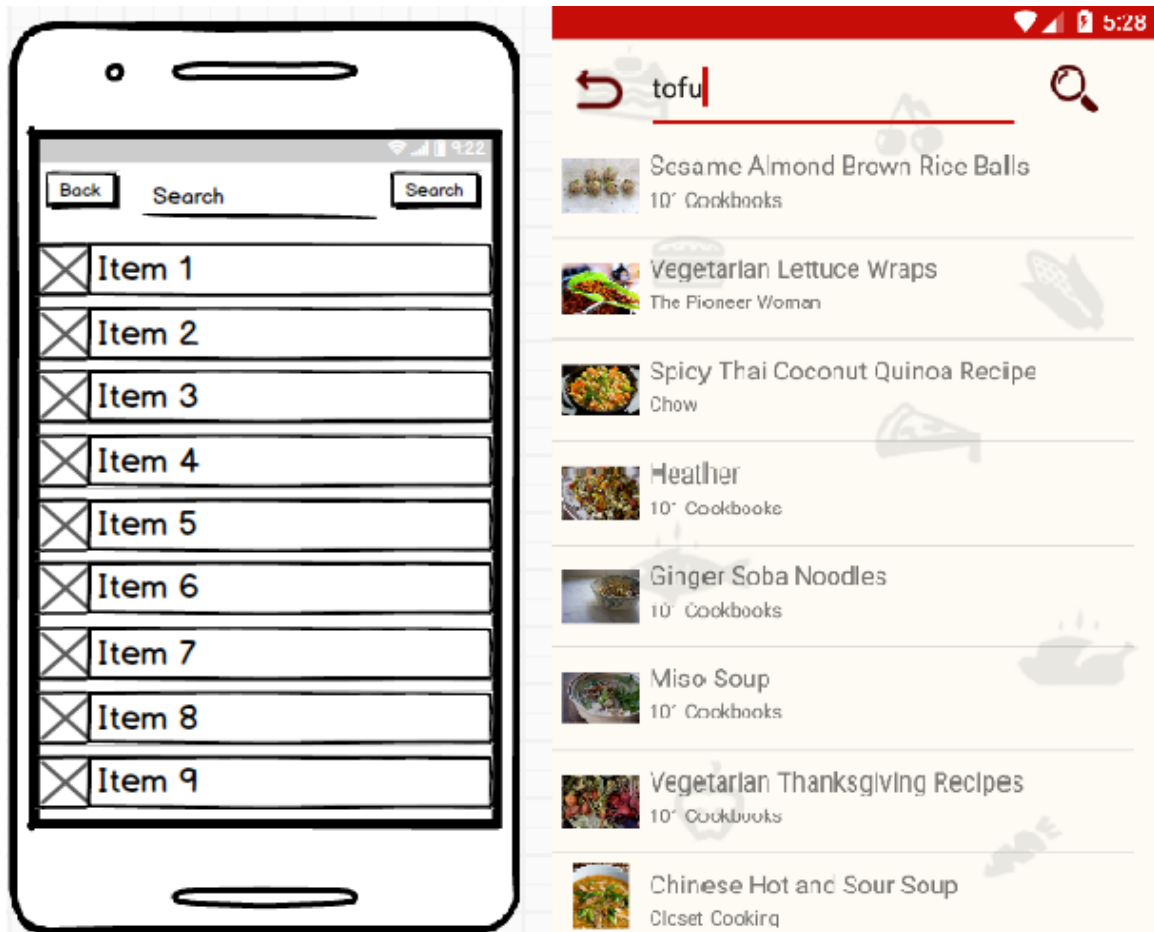


The above activity has the same layout and functions as the registration page.

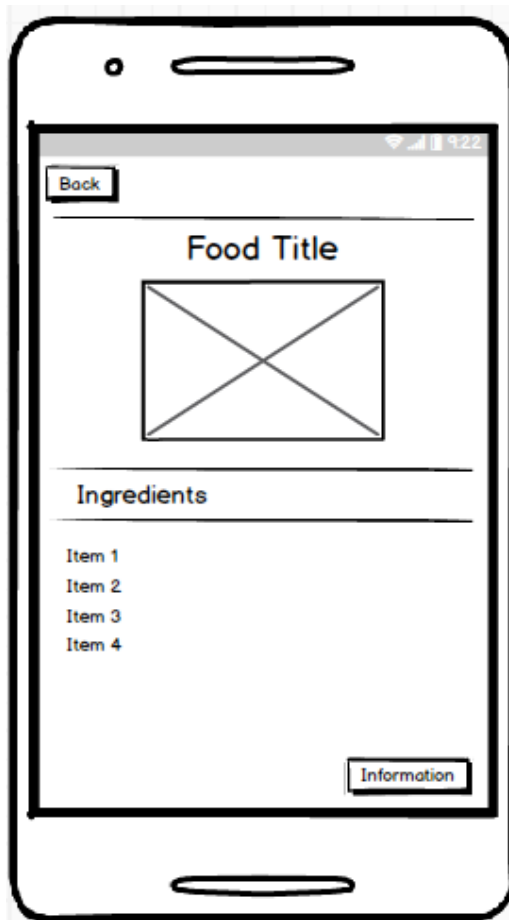
2.5.2 Main Menu



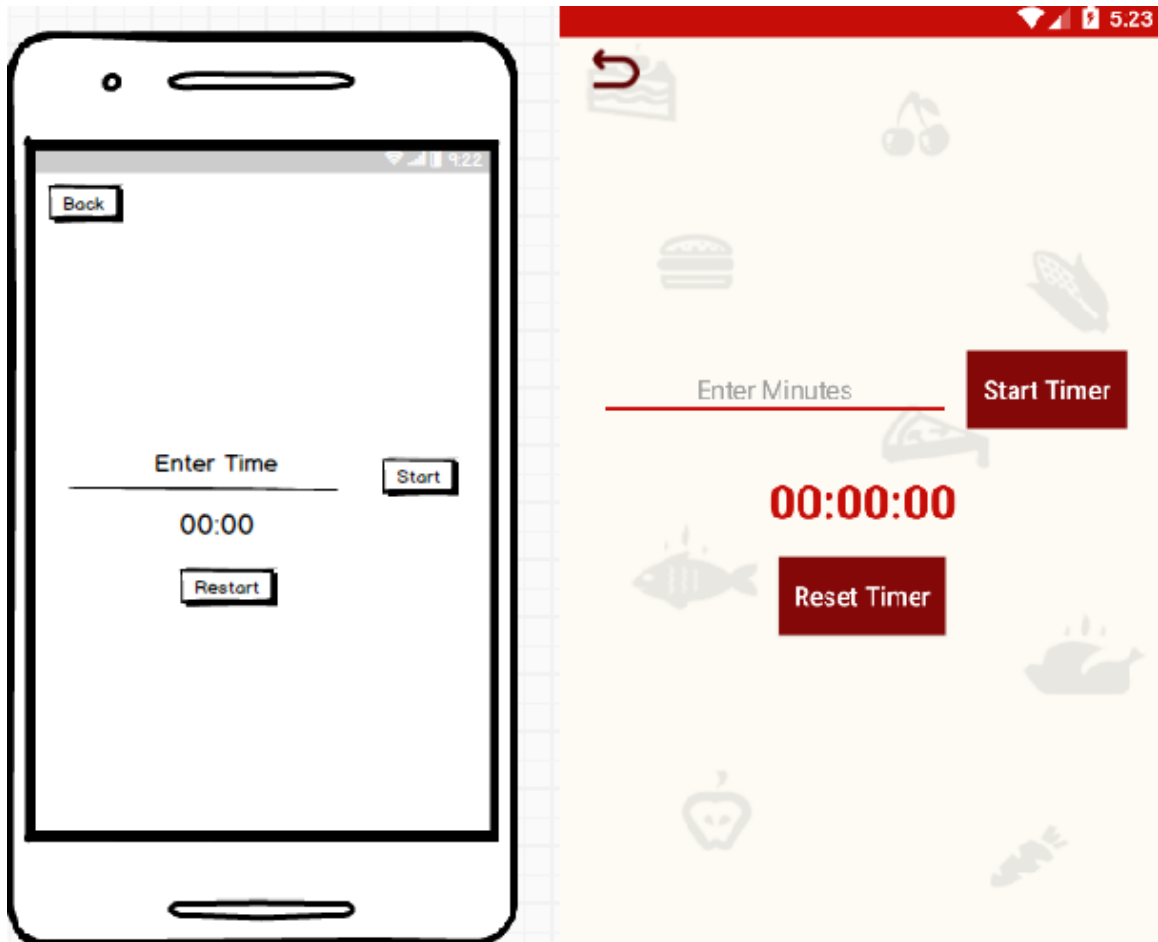
2.5.3 Recipe Search



2.5.3.1 Recipe Details



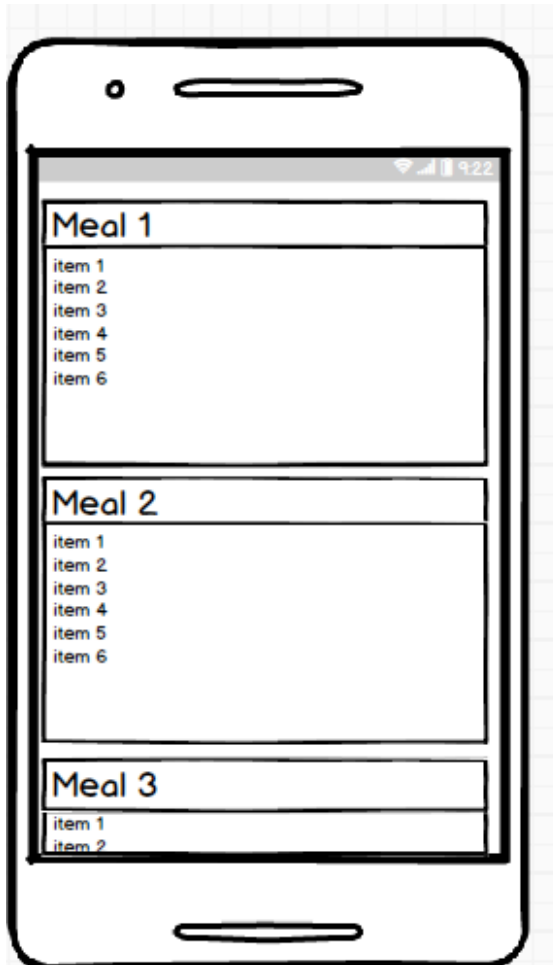
2.5.4 Timer



2.5.5 Image Upload



2.5.6 Favourite Meal



5.22

Bacon Double Cheese Burger Dip

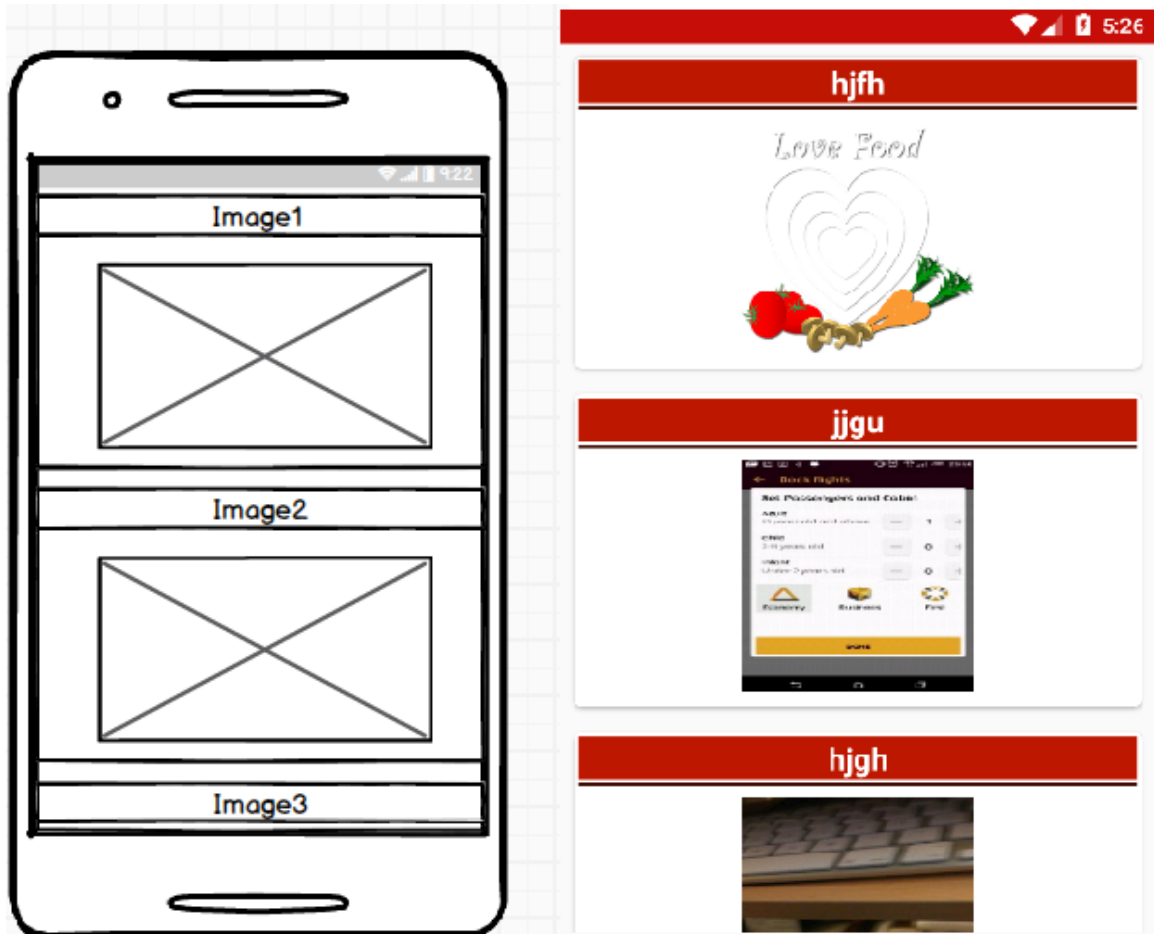
- 1/2 pound ground beef
- 6 strips bacon, cut into 1 inch pieces
- 1 small onion, diced
- 1 clove garlic, chopped
- 4 ounces cream cheese, room temperature
- 1/2 cup sour cream
- 1/4 cup mayonnaise
- 1/2 cup mozzarella, shredded
- 1/2 cup cheddar cheese, shredded
- 1 tablespoon worcestershire sauce
- 2 tablespoons ketchup

Heather

- a splash of extra-virgin olive oil
- a pinch of fine grain sea salt
- 1 shallot, minced
- 3 cups cooked quinoa* (or brown rice, or other grain)
- 1 cup corn, fresh or frozen
- 1 1/2 cups kale, spinach or other hearty green, finely chopped
- 2 cups extra-firm nigari tofu, browned in a skillet a bit
- 1/3 cup
- pesto
- 1/3 cup pumpkin seeds, toasted
- 1/4 cup roasted cherry tomatoes** (or chopped sun-dried tomatoes)

Cookie Monster cupcakes

2.5.7 Display Images



2.6 Testing

The testing section will outline all the testing methods used throughout the project development to help gauge design and functionality improvements and accessibility.

2.6.1 Test Cases

2.6.1.1 Login Activity

Test Case ID	Test Name	Description
TC_SI	Login Activity	The user can enter in an email and password and login to their account.

Tester:	Karl King x13565467
Date	04/05/2017

Test Case ID	Description	Preconditions	Expected	Actual Result	Notes
TC_SI_01	User logs in to their account	User has created an account and entered their details	The application verifies the user and the user is logged in	The user is logged into the application	Test Pass
TC_SI_02	User attempts to log in without a password	User has entered their email and no password	The user receives an error and is asked to enter password	The user is shown an error about invalid password	Test Pass

TC_SI_03	User attempts to log in without an email or password	Both email and password field are blank	Invalid email and password errors are returned	The user receives errors of invalid email and password	Test Pass
TC_SI_04	User attempts to log in without email and only password	Only a password is entered	Invalid email error is shown to the user	The user receives an invalid email error	Test Pass

2.6.1.2 Register Activity

Test Case ID	Test Name	Description
TC_SU	Register Activity	The user can enter in an email and password and create an account

Tester:	Karl King x13565467
Date	04/05/2017

Test Case ID	Description	Preconditions	Expected	Actual Result	Notes
TC_SU_01	User creates an account	User has entered their information into the fields	The application verifies the information and creates an account	The app verifies the information and creates an account for the user	Test Pass
TC_SU_02	User enters invalid email	The user has entered an invalid or empty email	The application returns an error of invalid email	The app informs the user of an invalid email	Test Pass
TC_SU_03	User enters invalid password	The user has entered an invalid or empty password	The application returns an error of invalid password	The app informs the user of an invalid password	Test Pass

2.6.1.3 Search Activity

Test Case ID	Test Name	Description
TC_SA	Search Activity	The user can enter in a food item and the system returns a list

Tester:	Karl King x13565467
Date	04/05/2017

Test Case ID	Description	Preconditions	Expected	Actual Result	Notes
TC_SA_01	User enters an item name	User has entered an item name such as 'chicken'	The item list fields below the search populate with results for the item	The API returns the list of possible recipes for the users item	Test Pass
TC_SA_02	User enters invalid item	The user has entered in an invalid	The system does not return any items	The system does not return any items	Test Pass
TC_SA_03	User does not enter an item	The user submits with the field blank	The system returns an error of blank field	The system informs the user of the error	Test Pass

2.6.1.4 Timer Activity

Test Case ID	Test Name	Description
TC_TA	Timer Activity	The user can enter in a time in minutes and begin a countdown

Tester:	Karl King x13565467
Date	04/05/2017

Test Case ID	Description	Preconditions	Expected	Actual Result	Notes
TC_TA_01	User enters a time in minutes	User has entered 1 minute into the timer	The application begins counting down from 1 minute	The app counts down from 1 minute	Test Pass
TC_TA_02	User enters no time	The user has not entered a time	The application returns an error of invalid time	The app informs the user of the invalid time amount	Test Pass
TC_TA_03	The timer finishes counting down	User has entered a time and the timer is ticking down to zero	The application begins beeping and buzzing	The timer hits zero and the app plays a sound and vibrates	Test Pass

2.6.1.5 Upload Image Activity

Test Case ID	Test Name	Description
TC_UI	Upload Image Activity	The user selects an image to store online and in their images folder

Tester:	Karl King x13565467
Date	04/05/2017

Test Case ID	Description	Preconditions	Expected	Actual Result	Notes
TC_UI_01	User uploads an image to the database and adds it to their folder	User selects upload and adds an image	The application confirms the image selection and adds it to their collection	The app verifies the image upload and has added it to their collection	Test Pass
TC_UI_02	User attempts to upload without an image	User has not selected an image	The application informs the user that they must select an image	The application informs the user that they have not selected an image	Test Pass
TC_UI_03	User attempts to upload without a title	User has selected an image but has not entered a title	An error occurs requiring a title to be entered	User receives the error and must enter a title	Test Pass

2.6.1.6 Nearby Store Activity

Test Case ID	Test Name	Description
TC_NS	Nearby Store Activity	The user can find nearby stores within google maps

Tester:	Karl King x13565467
Date	04/05/2017

Test Case ID	Description	Preconditions	Expected	Actual Result	Notes
TC_NS_01	User can find nearby stores within the google maps activity	User opens the google maps activity and clicks the nearby store button	The application returns all nearby stores	The app returns all nearby stores	Test Pass

2.6.1.7 Profile Activity

Test Case ID	Test Name	Description
TC_PA	Profile Activity	The user can select the navigation bar and all of its options

Tester:	Karl King x13565467
Date	04/05/2017

Test Case ID	Description	Preconditions	Expected	Actual Result	Notes
TC_PA_01	User can select the navigation bar and access all its properties	User is on the profile page and clicks the navigation button	The navigation bar opens and all the properties are available to the user	The navigation bar opens and all the properties are available to the user	Test Pass
TC_PA_02	The user can open the Recipe Search, Timer, Nearby Stores, Images, and Pictures sections	User is on the navigation bar and is selecting all of the options	The user selects an option and the chosen activity loads	The chosen activity loads on the application screen like expected	Test Pass

2.6.1.8 Favourites Activity

Test Case ID	Test Name	Description
TC_FA	Favourites Activity	The user can view and remove their favourite meals from the list

Tester:	Karl King x13565467
Date	04/05/2017

Test Case ID	Description	Preconditions	Expected	Actual Result	Notes
TC_FA_01	User can view and remove their favourite meals from the list	User is on the favourites activity	The list is populated with all the users favourite meals they've added	The list is populated with all the users favourite meals they've added	Test Pass
TC_FA_02	User can remove an item from their list	User is on the favourites activity with a populated list	The user can select and remove a meal from the list	The item is removed from the list, pending confirmation from the user	Test Pass

2.6.1.9 Recipe Details Activity

Test Case ID	Test Name	Description
TC_RD	Recipe Details Activity	The user view their recipe details and add it to their favourites

Tester:	Karl King x13565467
Date	04/05/2017

Test Case ID	Description	Preconditions	Expected	Actual Result	Notes
TC_RD_01	User can view the recipe details as populated on a list	User has searched for a meal and selected their meal	The list is populated with the title, image, and ingredients for the meal	The list is populated with the title, image, and ingredients for the meal	Test Pass
TC_RD_02	User can add the meal to their favourites	User has populated the details section with their meal	The meal is added to their favourites and the user is informed of this action	The meal is added to their favourites and the user is informed of this action	Test Pass

2.6.2 User Testing

The user testing section includes the results from Trunk testing and Think Aloud testing.

2.6.2.1 Trunk Test

Task ID	TT_01
Date	3/5/17
Start Time	10:23am
End Time	10:24am
Activity Name	Recipe Search
What page are you on?	I'm on a search page.
What are the major sections and are they outlined?	A back button, a search field, and if I use the search field there's recipes on the screen.
What navigation options are available?	A back button at the top, and a search button. If I click a recipe I move to a different screen.
Is there a search option available?	Yes, there's a search at the top of the screen.
Notes	User was very blunt and quick with replies.

Task ID	TT_02
Date	3/5/17
Start Time	10:53am
End Time	10:55am
Activity Name	Recipe Search
What page are you on?	Some sort of search page? It doesn't say anywhere.
What are the major sections and are they outlined?	There's search field at the top, I think that's it.
What navigation options are available?	A back button on the top left of the screen. If I can count the search as navigation there's a search field in the middle at the top.
Is there a search option available?	At the top of the screen in the middle.
Notes	User was slightly unsure of what major sections and navigation could mean. Required some slight guidance.

Task ID	TT_03
Date	3/5/17
Start Time	13:13pm
End Time	13:15pm
Activity Name	Recipe Search
What page are you on?	A search screen.
What are the major sections and are they outlined?	Seems pretty blank, it has a search at the top and two buttons.
What navigation options are available?	I can go back to a previous screen.
Is there a search option available?	Yes, there's a search option.
Notes	The screen is blank before the search, and the user said he wasn't sure what he was searching for unless he had previously clicked into that screen.

Task ID	TT_04
Date	3/5/17
Start Time	14:27pm
End Time	14:28pm
Activity Name	Recipe Search
What page are you on?	A recipe screen
What are the major sections and are they outlined?	The only major section I can see is the search.
What navigation options are available?	There's search available and I can press the back button
Is there a search option available?	There is.
Notes	User found all the details on the screen, including searching and displaying recipes

Task ID	TT_05
Date	3/5/17
Start Time	15:01pm
End Time	15:02pm
Activity Name	Recipe Search
What page are you on?	I'm on the search page, presumably for foods.
What are the major sections and are they outlined?	There's a search field and output below it.
What navigation options are available?	There's buttons at the top for returning to a previous screen and searching, along with a search space for typing foods.
Is there a search option available?	Yes, at the top of the screen.
Notes	User was blunt and finished very quickly. Had very little trouble on the page.

Task ID	TT_06
Date	4/5/17
Start Time	9:10am
End Time	9:13am
Activity Name	Image Upload
What page are you on?	I am on a screen for uploading images
What are the major sections and are they outlined?	I can select an image, add a title and then upload my inputs.
What navigation options are available?	Select an image, and back button
Is there a search option available?	There is no search option, unless the select image button counts.
Notes	Unsure if image selection counts as search, otherwise confident.

Task ID	TT_07
Date	4/5/17
Start Time	9:39am
End Time	9:42am
Activity Name	Image Upload
What page are you on?	Page for adding images somewhere.
What are the major sections and are they outlined?	Select an image, add a title, and upload
What navigation options are available?	I can return to the main menu.
Is there a search option available?	No.
Notes	Similar in response to TT_06.

Task ID	TT_08
Date	4/5/17
Start Time	10:10am
End Time	10:12am
Activity Name	Image Upload
What page are you on?	Upload an image page
What are the major sections and are they outlined?	Add the image, give it a name and the upload it.
What navigation options are available?	I can click select an image, and it then brings me to the phone images, where I can select one and then return to the image upload screen.
Is there a search option available?	Not that I can see.
Notes	User spent more time than previous with details on navigation.

Task ID	TT_09
Date	4/5/17
Start Time	10:44am
End Time	10:48am
Activity Name	Image Upload
What page are you on?	I am currently on the image select and upload page.
What are the major sections and are they outlined?	I have options for selecting an image at the top using a very clear button, I can then add a title, presumably to the image. And then I can upload the image.
What navigation options are available?	It seems like a static page, without many navigation options except for the back button.
Is there a search option available?	No search options available.
Notes	Clearly defined and helpful tester.

Task ID	TT_10
Date	4/5/17
Start Time	11:35am
End Time	11:37am
Activity Name	Image Upload
What page are you on?	The select image page
What are the major sections and are they outlined?	Title field, and then the buttons for uploading.
What navigation options are available?	No navigation options that I can see.
Is there a search option available?	The user can search for an image on their device.
Notes	The user was unable to give the correct name for the page they were on.

2.6.2.2 Think Aloud Test

Task ID	TA_01
Date	3/5/17
Start Time	9:15am
End Time	9:17am
Task	Add a recipe to Favourites
Expected Behaviour	<ul style="list-style-type: none">• User logs into the application• User is redirected to the Main Menu page• User opens the navigation drawer• User select Recipe Search• User enters a recipe and searches• User selects from the list returned• User is brought to the details page• User clicks the add to favourites button.
Actual Behaviour	<ul style="list-style-type: none">• User logs into the application• User is redirected to the main menu page• User clicks the Recipe Search button on the main menu• User enters a recipe• User selects a recipe• User is brought to the details page• User clicks favourite
Notes	User has said they did not find the task very difficult.

Task ID	TA_02
Date	3/5/17
Start Time	9:26am
End Time	9:29am
Task	Add a recipe to Favourites
Expected Behaviour	<ul style="list-style-type: none"> • User logs into the application • User is redirected to the Main Menu page • User opens the navigation drawer • User select Recipe Search • User enters a recipe and searches • User selects from the list returned • User is brought to the details page • User clicks the add to favourites button.
Actual Behaviour	<ul style="list-style-type: none"> • User logs into the application • User is redirected to the main menu page • User clicks the drawer navigation • User is brought to the recipe search page • User enters a recipe • User selects a recipe • User is brought to the details page • User clicks favourite
Notes	User has said they did not find the task very difficult and used the drawer navigation.

Task ID	TA_03
Date	3/5/17
Start Time	10:01am
End Time	10:02am
Task	Add a recipe to Favourites
Expected Behaviour	<ul style="list-style-type: none"> • User logs into the application • User is redirected to the Main Menu page • User opens the navigation drawer • User select Recipe Search • User enters a recipe and searches • User selects from the list returned • User is brought to the details page • User clicks the add to favourites button.
Actual Behaviour	<ul style="list-style-type: none"> • User logs into the application • User types the password wrong and must re-enter details • User is redirected to the main menu page • User clicks the Recipe Search button on the main menu • User enters a recipe • User scrolls the list looking for details or a button • User selects a recipe • User is brought to the details page • User clicks favourite
Notes	User mistakenly types in the wrong password, and then is unsure they can click the list that has been returned by the search engine.

Task ID	TA_04
Date	3/5/17
Start Time	10:15am
End Time	10:18
Task	Add a recipe to Favourites
Expected Behaviour	<ul style="list-style-type: none"> • User logs into the application • User is redirected to the Main Menu page • User opens the navigation drawer • User select Recipe Search • User enters a recipe and searches • User selects from the list returned • User is brought to the details page • User clicks the add to favourites button.
Actual Behaviour	<ul style="list-style-type: none"> • User logs into the application • User is redirected to the main menu page • User opens the navigation drawer • User selects favourites • User is unsure of why the list is blank • User presses the back button and is returned to the main menu • User again opens the navigation drawer • User realises they have no favourites unless selected • User selects Recipe Search • User enters recipe • User selects from list returned • User clicks the add to favourites button.
Notes	User entered the favourites section and waited for something to appear, the user later realised they must add a favourite first.

Task ID	TA_05
Date	3/5/17
Start Time	11:20am
End Time	11:21am
Task	Add a recipe to Favourites
Expected Behaviour	<ul style="list-style-type: none"> • User logs into the application • User is redirected to the Main Menu page • User opens the navigation drawer • User select Recipe Search • User enters a recipe and searches • User selects from the list returned • User is brought to the details page • User clicks the add to favourites button.
Actual Behaviour	<ul style="list-style-type: none"> • User logs into the application • User is redirected to the main menu page • User clicks the Recipe Search button on the main menu • User enters a recipe • User selects a recipe • User is brought to the details page • User clicks favourite
Notes	User has said they did not find the task very difficult.

Task ID	TA_06
Date	4/5/17
Start Time	12:02pm
End Time	12:04pm
Task	Add a recipe to Favourites
Expected Behaviour	<ul style="list-style-type: none"> • User logs into the application • User is redirected to the Main Menu page • User opens the navigation drawer • User select Recipe Search • User enters a recipe and searches • User selects from the list returned • User is brought to the details page • User clicks the add to favourites button.
Actual Behaviour	<ul style="list-style-type: none"> • User logs into the application • User is redirected to the main menu page • User opens the navigation drawer • User selects Recipe Search • User enters a recipe • User selects a recipe • User is brought to the details page • User clicks favourite
Notes	User has successfully completed the expected behaviours without any misdirection's.

Task ID	TA_07
Date	4/5/17
Start Time	12:30pm
End Time	12:33pm
Task	Add a recipe to Favourites
Expected Behaviour	<ul style="list-style-type: none"> • User logs into the application • User is redirected to the Main Menu page • User opens the navigation drawer • User select Recipe Search • User enters a recipe and searches • User selects from the list returned • User is brought to the details page • User clicks the add to favourites button.
Actual Behaviour	<ul style="list-style-type: none"> • User logs into the application • User is redirected to the main menu page • User opens the navigation drawer • User selects favourites • User realises their mistake and returns to the main menu • User then opts to click the Recipe Search button on the main menu • User enters a recipe • User selects a recipe • User is brought to the details page • User clicks favourite
Notes	User has both opened the navigation bar and selected the recipe search button from the main menu. Uses has said they did not find the navigation overly complicated and that they have just made a silly mistake.

Task ID	TA_08
Date	4/5/17
Start Time	9:33am
End Time	9:34am
Task	Add a recipe to Favourites
Expected Behaviour	<ul style="list-style-type: none"> • User logs into the application • User is redirected to the Main Menu page • User opens the navigation drawer • User select Recipe Search • User enters a recipe and searches • User selects from the list returned • User is brought to the details page • User clicks the add to favourites button.
Actual Behaviour	<ul style="list-style-type: none"> • User logs into the application • User is redirected to the main menu page • User decides not to click the button on main menu • User opens the navigation draw and reads options • User Select Search Recipe • User is brought to the recipe search screen • User enters a recipe • User then selects a recipe from the returned list • User is brought to the details page • User clicks favourite
Notes	-

Task ID	TA_09
Date	4/5/17
Start Time	11:57am
End Time	12:00pm
Task	Add a recipe to Favourites
Expected Behaviour	<ul style="list-style-type: none"> • User logs into the application • User is redirected to the Main Menu page • User opens the navigation drawer • User select Recipe Search • User enters a recipe and searches • User selects from the list returned • User is brought to the details page • User clicks the add to favourites button.
Actual Behaviour	<ul style="list-style-type: none"> • User incorrectly enters the email/password given • User re-enters both authentications • User logs into the application • User is redirected to the main menu page • User clicks the Recipe Search button on the main menu • User is brought to the recipe search screen • User enters a recipe • User selects a recipe • User is brought to the details page • User clicks favourite
Notes	User has stated they like the design, it's very clear, and that they believe the details page layout is also very clear.

Task ID	TA_10
Date	4/5/17
Start Time	13:40pm
End Time	13:42pm
Task	Add a recipe to Favourites
Expected Behaviour	<ul style="list-style-type: none"> • User logs into the application • User is redirected to the Main Menu page • User opens the navigation drawer • User select Recipe Search • User enters a recipe and searches • User selects from the list returned • User is brought to the details page • User clicks the add to favourites button.
Actual Behaviour	<ul style="list-style-type: none"> • User enters the details provided • The user successfully logs into the application • The user is brought to the main menu page • The user noticed the recipe button, and enquires about it • The user then decides to click the button and see • The user is unsure of what screen they're on • The user enters a food into the search bar • The user then selects from the list returned • The user clicks favourite
Notes	User has said they were confused when they arrived on the search screen as they did not know what page they were on and presumed it was to enter a food source.

2.6.2.3 System Usability Scales

Test ID: TA-01

Application Name: Lovefood

Date: 3/5/17

System Usability Scale

Please mark 1 box for each question below.

		Strongly Disagree				Strongly Agree
1.	I think that I would like to use this application frequently	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.	I found the application unnecessarily complex.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	I thought the application was easy to use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4.	I think that I would need the support of a technical person to be able to use this app.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	I found the various functions in this application were well integrated.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6.	I thought there was too much inconsistency in this application.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	I would imagine that most people would learn to use this application very quickly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8.	I found the application very cumbersome to use.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	I felt very confident using the application.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10.	I needed to learn a lot of things before I could get going with this application.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Test ID: TA_02

Application Name: LoveFood

Date: 3/5/17

System Usability Scale

Please mark 1 box for each question below.

		Strongly Disagree				Strongly Agree
1.	I think that I would like to use this application frequently	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.	I found the application unnecessarily complex.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	I thought the application was easy to use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4.	I think that I would need the support of a technical person to be able to use this app.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	I found the various functions in this application were well integrated.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6.	I thought there was too much inconsistency in this application.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	I would imagine that most people would learn to use this application very quickly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8.	I found the application very cumbersome to use.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	I felt very confident using the application.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10.	I needed to learn a lot of things before I could get going with this application.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Test ID: TA-03

Application Name: LoveFood

Date: 3/5/17

System Usability Scale

Please mark **1 box** for each question below.

		Strongly Disagree				Strongly Agree
1.	I think that I would like to use this application frequently	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.	I found the application unnecessarily complex.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	I thought the application was easy to use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4.	I think that I would need the support of a technical person to be able to use this app.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5.	I found the various functions in this application were well integrated.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6.	I thought there was too much inconsistency in this application.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	I would imagine that most people would learn to use this application very quickly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8.	I found the application very cumbersome to use.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	I felt very confident using the application.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10.	I needed to learn a lot of things before I could get going with this application.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Test ID: TA-074

Application Name: LoveFood

Date: 3/8/17

System Usability Scale

Please mark 1 box for each question below.

		Strongly Disagree				Strongly Agree
1.	I think that I would like to use this application frequently	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.	I found the application unnecessarily complex.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	I thought the application was easy to use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.	I think that I would need the support of a technical person to be able to use this app.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	I found the various functions in this application were well integrated.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6.	I thought there was too much inconsistency in this application.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	I would imagine that most people would learn to use this application very quickly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8.	I found the application very cumbersome to use.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	I felt very confident using the application.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10.	I needed to learn a lot of things before I could get going with this application.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Test ID: TA_05

Application Name: Love Food

Date: 3/5/17

System Usability Scale

Please mark 1 box for each question below.

		Strongly Disagree				Strongly Agree
1.	I think that I would like to use this application frequently	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	I found the application unnecessarily complex.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	I thought the application was easy to use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.	I think that I would need the support of a technical person to be able to use this app.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	I found the various functions in this application were well integrated.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6.	I thought there was too much inconsistency in this application.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	I would imagine that most people would learn to use this application very quickly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8.	I found the application very cumbersome to use.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	I felt very confident using the application.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10.	I needed to learn a lot of things before I could get going with this application.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Test ID: TA-06

Application Name: Love Food

Date: 4/5/17

System Usability Scale

Please mark 1 box for each question below.

		Strongly Disagree				Strongly Agree
1.	I think that I would like to use this application frequently	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.	I found the application unnecessarily complex.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	I thought the application was easy to use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.	I think that I would need the support of a technical person to be able to use this app.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	I found the various functions in this application were well integrated.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6.	I thought there was too much inconsistency in this application.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	I would imagine that most people would learn to use this application very quickly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8.	I found the application very cumbersome to use.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	I felt very confident using the application.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10.	I needed to learn a lot of things before I could get going with this application.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Test ID: TA-07

Application Name: LoveFood

Date: 4/5/17

System Usability Scale

Please mark 1 box for each question below.

		Strongly Disagree				Strongly Agree
1.	I think that I would like to use this application frequently	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.	I found the application unnecessarily complex.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	I thought the application was easy to use.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	I think that I would need the support of a technical person to be able to use this app.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	I found the various functions in this application were well integrated.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6.	I thought there was too much inconsistency in this application.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7.	I would imagine that most people would learn to use this application very quickly.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	I found the application very cumbersome to use.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	I felt very confident using the application.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10.	I needed to learn a lot of things before I could get going with this application.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Test ID: TA-08

Application Name: Lovefood

Date: 4/5/17

System Usability Scale

Please mark 1 box for each question below.

		Strongly Disagree				Strongly Agree
1.	I think that I would like to use this application frequently	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.	I found the application unnecessarily complex.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	I thought the application was easy to use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.	I think that I would need the support of a technical person to be able to use this app.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	I found the various functions in this application were well integrated.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6.	I thought there was too much inconsistency in this application.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	I would imagine that most people would learn to use this application very quickly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8.	I found the application very cumbersome to use.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	I felt very confident using the application.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10.	I needed to learn a lot of things before I could get going with this application.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Test ID: IA-09

Application Name: Lovefood

Date: 4/5/17

System Usability Scale

Please mark 1 box for each question below.

		Strongly Disagree				Strongly Agree
1.	I think that I would like to use this application frequently	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.	I found the application unnecessarily complex.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	I thought the application was easy to use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.	I think that I would need the support of a technical person to be able to use this app.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	I found the various functions in this application were well integrated.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6.	I thought there was too much inconsistency in this application.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	I would imagine that most people would learn to use this application very quickly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8.	I found the application very cumbersome to use.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	I felt very confident using the application.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10.	I needed to learn a lot of things before I could get going with this application.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Test ID: TA-10

Application Name: Lowe food

Date: 4/5/17

System Usability Scale

Please mark 1 box for each question below.

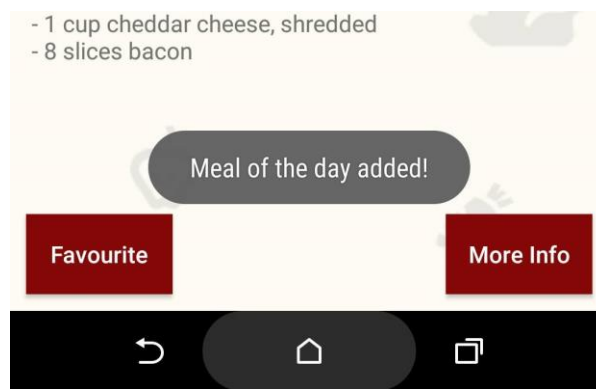
		Strongly Disagree				Strongly Agree
1.	I think that I would like to use this application frequently	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.	I found the application unnecessarily complex.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	I thought the application was easy to use.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	I think that I would need the support of a technical person to be able to use this app.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	I found the various functions in this application were well integrated.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	I thought there was too much inconsistency in this application.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	I would imagine that most people would learn to use this application very quickly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8.	I found the application very cumbersome to use.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	I felt very confident using the application.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	I needed to learn a lot of things before I could get going with this application.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

2.6.2.4 Heuristic Evaluation

To complete heuristic evaluation of the application, during the process of Trunk testing and Think aloud testing I have asked each of the users to give feedback regarding the heuristics of the application. Each user has given feedback for one or more of the following sections.

Visibility of Feedback

The application informs the users of when they add a meal to their favourites list or when they upload an image.



Use of Real World Language

The application uses easy to understand responses and phrases at all times across all activities. The application refrains from using uncommon words or structure. All output is labelled clearly so that the user understands fully.

Navigation and User Controls

Users have a lot of freedom within the application and can access all areas of the application without restrictions. Users can control their favourite meals and images through a series of selections and can remove these selections at any time.

Consistency and Standards

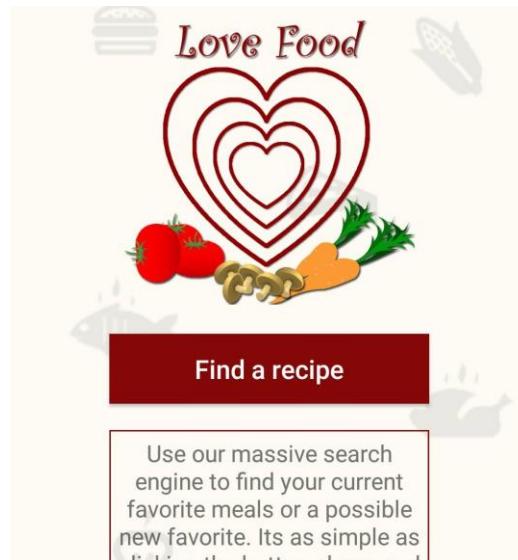
The application follows a consistent design pattern with the use of colours and wording. If a back button is found in a position on one activity, it will be found in that position on all remaining activities if available.

Error Prevention and Correction

Error prevention and correction is found on all submit sections, throughout the login and registration, the image submit section, and the search sections. If two fields are required for access, the user must enter information into both fields.

Efficiency of Use

The application is available to all android users with API 17 and above. The application follows a simple pattern and all major functions can be found on the navigation bar. Users immediately have the options to search recipes from the main menu when they log in, which means they do not require prior knowledge of the applications layouts or design to search a recipe.



Help and Documentation

If a user is new the application and finds themselves on the login screen without credentials, they can find a button at the bottom of the page which will redirect them to the registration page.

2.6.2.5 Usability Testing Results

Usability design is key for highlighting areas that need improvement in both efficiency of use and visibility to the user. Using the tests that were ran it was possible to implement quick fixes and changes to the application that further better the users experience. The think aloud tests helped to figure out what parts of the application needed tweaking in terms of helping the user understand the navigation and the processes required to reach the end of the test. The users were usually able to reach the end goal of the test without much error along the way, which showed the design was set out in a way that most users expected. Using the heuristic evaluation, I could go over each heading along my application to make sure that the application was ticking all the above expected boxes and delivering all errors or in the way that would help the user. From doing the SUS testing my application amassed an overall total of 84 score, which is very good and respected score to receive for the application. Finally, the trunk testing gave feedback in areas of navigation, and where I could improve the users ease of navigation throughout the application. Users didn't seem to have many navigation issues but in areas without titles or headings I simply added new ones in to make it clearer for the user.

3 Conclusions

This document was created to help outline all the development and design processes that occurred; such as the initial plans, the early design and development phases and the current design and development along with all of the testing of features and design which have come together to create Love Food. The final build of the project has managed to satisfy the initial requirements that were outlined early in the planning and development phases and moving forward can hopefully help many novice or advanced food enthusiast to create fantastic meals.

The testing was extremely important to gauge feedback from users on design and the usability of the application. It helped to shine a light on the way users would interact with the application having zero prior knowledge of the functions or navigation.

The Advantages of this project are

- I have furthered my knowledge of Android development.
- I have learned new skills and have grown already in terms of developing an application.
- I have learned more about API's and their implementation.
- I have discovered new methods and resources such as Firebase.
- My confidence in developing applications has greatly increased.

Opportunities available to Love Food:

- The application has a long shelf life, and once a user becomes accustomed to using the application it may find a home in their mobile.
- The search API is ever growing and users will never run out of foods to cook.
- Users can use the application anywhere at any time.
- Application could be ported to both web and iOS to possibly expand the market reach.
- The user base is massive, as everybody has an interest in foods.

Limits of Love Food:

- The food applications market is already packed full of applications making it hard to break into.
- Adding additional features becomes harder without coming feature creep.

4 Further development or research

The project could improve in many forms. With more resources and teams the application could expand to both web and iOS development which would further the user reach and income. One of the big hindrances of the current project is the lack of time and money. The current API Food2Fork is free for a certain number of API calls per day, with more resources the project could use its own custom API or perhaps afford to use a more robust and limitless API.

The application could be improved in areas of user control in that the users can create their own profiles, add images to a custom profile filled with information about the user and perhaps share on social media with friends to show their meals and favourites, while also doubling as a marketing feature for the application; thus, reaching more users through social media.

If the development team was expanded and more resources available features such as the Nearby Stores feature could be expanded to show more details about the stores, give directions and routes along with possibly saving those stores to another section with details on the foods they had on offer.

The application has many avenues of further development and if given the time and resources in the future I would enjoy being part of the possible expansion.

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6 Appendix

6.1 *Project Proposal*

6.1.1 Objectives

The objectives of this application is to help users to understand the possibilities of food and recipes and to maximize the choices available to them with common household foods that most people would never think to use or cook with!

The app will have a wide list of recipes available to use, it will give guidelines and instructions on how to cook these meals along with the correct amount of ingredient and the measurements. The user will have a choice of which meals they prefer to cook from the foods they've listed as available to them for cooking.

Once the user has selected some foods, like tomato's, pasta, butter etc. They will be shown a list of recipes that contain those foods and others which may require other foods to be added to that list.

If they do not have the foods listed, they can add those foods to a shopping list within the app so that when they're out shopping later, they remember the foods they require.

6.1.2 Background

The idea for this application came about one evening when I was walking around my kitchen back and forth from the fridge and presses. There was loads of food available to me, but nothing stuck out to me as cookable or appetizing. This is down the fact I don't have a vast knowledge of recipes or cooking skills. I would instead spend my time looking for foods, behind perfectly good foods. And in the end I would say the same line everybody says – "There's never anything to eat!".

This of course isn't true, there's a lot to eat and I'm just not aware of its existence just yet. It's also not that simple. Any household can hold a cookbook. But a lot of these cookbooks you need to know what you're looking for or check through the

recipes for foods that you can make from the ingredients you have. This can sometimes take too long or eventually lead you to a dead end.

So I thought, well why don't I create an application for the user so that they can input the ingredients they have available to them, along with a full list of recipes. This way the user has a choice from what they have available.

And if a user doesn't have the full list of required ingredients they can add those ingredients to a built in shopping list, which will then be available to the user when they next go to the shop.

I would never be the best cook, but I do enjoy cooking good foods, and I also enjoy eating – but so does everybody. So I felt this application was a good idea to go with for my final year project.

6.1.3 Technical Approach

Research

The technical approach for this application was to build the application within android studio. I was going to give a nice modern look with a slick interface which would be easily manageable.

Implementation

I require a food or recipes API, I have found a few of these and will be implementing this into my project. This will help with the images, and recipe guidelines for the users. It will also speed up the process by using GET methods and pulling in the required recipes from the source API.

Literature Review

Read through multiple cookbooks and take a few aspects of these like layouts for recipes, and guidelines for cooking. Along with what I feel may be lacking like the correct measurements. I will continue to research in this area.

6.1.4 Special resources required

For this project I will require an android smartphone to run the APK's and the check that all of the functionality is running as expected on devices and not just on my machine through an emulator.

I will also be using Android studio, and running the built in emulator to test locally while coding and designing the interface.

This will be a very big task for myself throughout the year and will require a lot of time and effort on my part, both in and out of college.

Project Plan

I will be designing and developing my project using agile methodology. This is a very commonly used method for developing in very big businesses all over Ireland. This is the way I have learned to develop while out on work experience.

I don't believe a Gantt chart would benefit me during this project as I probably wouldn't check it and use it as a guide.

Using Agile I will do the following –

Backlog, sprints and grooming of the backlog.

Backlog will hold all of the items that I need to complete, and also some items that aren't necessities but I may like to include.

Sprints will hold all of the work I would like to get done for a certain amount of days.

The grooming of the backlog will be the removal and adding of items to the sprints.

6.1.5 Technical Details

Languages –

Java – This is the language I have chosen to develop using. It's my strongest language and the one I've been developing in since I started coding.

JavaScript - This will help with the implementation of the harder items later on. It also seems to be the way coding is going in the business world so I would like to improve my usage.

XML – This will be used to organize all of the user interface widgets and Labels.

6.1.6 Evaluation

Having worked as a Quality Assurance Engineer for two separate companies spanning a year in total. I have full knowledge and understanding of the testing required.

I will be using both manual testing for each function implemented while its being created, I will also be doing a full regression suite of all implementations when I finish a sprint.

This way I can check all features are working as expected and minimize any bugs before I move onto the next sprint.

6.2 *Monthly Journals*

6.2.1 September

My Achievements

It's now almost a month since I've returned to college and finished up with my work placement. The money and experience is key to why I'm determined to try and do my utmost best this year in all assignments and exams.

The assignments are coming in thick and fast from all modules and its already becoming hard to organize and work around personal life with college life. I'm having to set exact days to work on certain assignments, but thankfully my girlfriend understands. Following these rules for myself alone will definitely benefit me in the long run throughout the year.

For this software project I've decided to go with a mobile application, to keep with the theme of my stream. I'll already have an application for another module but I felt working with both would just improve my skills with certain programs. I opted

for an app based around common household foods and what you can cook with them. It will contain recipes, a list of ingredients and all of the choices for a user.

My Reflection

I felt when I pitched my idea at the presentation, it went over rather well. All 3 of the judges liked the idea and even debated amongst themselves over different aspects of my idea and the complexity behind it. This gave me a great feeling about the usefulness and originality of the idea.

Although when Dr. Ralf Bierig and Dr. Paul Stynes were debating about its complexity, I did feel perhaps I may be too far in above my head. I am however going to continue on with the idea and hope that I can achieve all the goals I've set out.

Intended Changes

Next month I will have a lot more research and hopefully a basic prototype of the application. I will also hope to find an API online to handle all of the foods and recipes.

I will also have finished my project proposal documentation fully outlining the application.

6.2.2 October

My Achievements

The last month has been a very long month and I can already tell this will be one of the hardest years I've ever had in college. Every week it's like we're receiving a new assignment or have an exam coming up to study for. It's actually insane at this point.

I've had to spend time over my reading week doing small parts for my prototype in android getting all of the niggling bits out of the way now so I don't have to worry about them later in time.

I feel I've done well managing my project with all of my other modules, but I do feel I could be doing a little better.

My Reflection

My skills with Android studio aren't as up to scratch as I expected them to be and i have had to spend a little more time getting back into the swing of things which has slowed me down.

I've also found out that Cristina Muntean is my mentor and there is a schedule meeting with her next week (10th Nov) which I'm looking forward to, as I'm sure I'm not the only one that has a few questions for her which may help ease the stress even a small bit.

Intended Changes

I have found multiple API sources and intend to test them out over the next month.

I also intend to have a working prototype by December which will set me in good stead for the rest of the year hopefully and will let me know where I can change or need to change.

Supervisor Meetings

I have a meeting scheduled with Cristina Muntean in November and will be asking a lot of questions about the number of hours I should be putting into this project weekly and the best way to approach certain aspects.

Date of Meeting: NA

Items discussed: NA

Action Items: NA

6.2.3 November

My Achievements

This month I've had to finish off my requirements specifications, or at least the draft for now. I also had to start my Technical report, which took a few headings

and topics from the requirements specification anyways, so it wasn't too hard. I'll have to keep updating these documents as I go along.

I also got a portion of my project done. I have the login with Google working, and a basic setup of the menus and screens working, with a few images.

I've also been working to get the API working, so I can test pulling in foods and recipes. I've had to test a few API sources now, as others are paid for or just don't offer what I need.

I will continue working on this prototype for my midpoint presentation.

My Reflection

I felt the documentation has gone fine, and starting my prototype was also fine. I have hit some problems however with the pulling of recipes and foods from API's but this is just down to luck and finding the source that will help me the most.

I will continue to look for a good source and in the meanwhile, I'll continue working with my application.

Intended Changes

Next month I will try to do a lot more work on the project because I'm hoping I won't have as many other assignments for other modules.

I can't foresee the future but, that's the intention for now.

Supervisor Meetings

Date of Meeting: 8/12/2016

Items discussed:

How we're getting on with our prototypes, any issues we're having and how the other workloads in the modules are now that time has passed since the last meeting.

6.2.4 December

My Achievements

Throughout the last month, I've been working hard on my documents for the presentation and with furthering my project and prototype. I'm trying to not look at them as separate entities, but instead my 'prototype' will be my current project and where I'm at. I've managed to complete a lot of functionality, and I would say I'm sitting at about 50%, with the other 50% to work on throughout next semester.

I had my presentation, and I felt it went well, I wasn't nervous as I knew I had more than enough work done on the project itself, although I may have missed a few marks because my documents could have been a little better; but I will fix those before final submissions later in the year.

My Reflection

I got a lot of functionality finished, with the possibility to tweak or upgrade the current functionality depending on time and whether it's important. I will be able to move onto the main functions of searching api's now.

My presentation went well, and the prototype was good.

I got a lot of feedback from both the examiners in my presentation, so I will be able to refer to those notes when moving forward.

Intended Changes

I will be implementing my Search API, and checking the feedback and implementing changes there.

Supervisor Meetings

Date of Meeting: 8/12/16

Items discussed:

This meeting we discussed how our prototypes were coming on, things we needed to finalize for our documentation and also what we should be expecting for our presentation which was soon. We talked about what we should have completed in time, and the possible grading and expectations of the markers.

6.2.5 January

My Achievements

Since the presentation, I received a lot of feedback on where I could improve my application, and what features I should be focusing on. Since then I've gone back and reviewed a lot of applications on the market, both iOS and Android; even though my application is solely Android, i felt the extra few applications for iOS could still give me idea and a better look at what my finished application should look like and be able to do.

I've changed the look of my application since the presentation and I will probably change it again before completion. I've also removed my Timer functionality and I have replaced it with a different timer of sorts, as I've been informed that it was more of an alarm than a timer.

My Reflection

I believe I've spent a lot of time researching again, and have taken a lot more notes on what I could improve my application with. The application is still changing day by day, but with this semester not being as busy as last, i have more time to focus on my project which is a big plus.

Intended Changes

The general look of the application has changed, and may change again. I've changed the Timer, and i will be looking at all of my features to ensure i offer all possible features the user could need.

Supervisor Meetings

Date of Meeting: 31/01/17 and 3/3/17

Items discussed:

I was unable to make the meeting on the 31'st of January because of my driving test. And Cristina usually does these meetings as a group so it could not be changed. My following meeting with Cristina is on the 3/3/17.

6.2.6 February

My Achievements

Since my last rework of how my application looked and how I changed a few functionalities. I haven't had much time to work on the application. I've done a few small clean ups in the code and change some of the color schemes again for what feels like the 100th time. I've also implemented internationalization with German, Spanish, French and Italian.

I have multiple assignments currently that I'm working on 2 big team projects and a report, so my time has been severely limited.

My Reflection

I don't believe I've managed to do enough this month, but I've done what I can in terms of work and time available to do it. Next month, throughout April and some of May I will have a lot more time to dedicate solely to my application.

Intended Changes

I intend to spend more time doing my final application, and will hopefully get a bulk of the final work completely in the next month coming.

Supervisor Meetings

Date of Meeting: 10/3/17

Items discussed:

This supervisor meeting was rescheduled from the 3/3/17 which I was in the college ready to attend when I received an email that it was cancelled. It was rescheduled for the 10/3/17 but I was then unable to attend through illness.

6.2.7 March

My Achievements

For the final run in with my assignment, i have just about over 1 month left to work on functionality and finishing off the main features.

I have changed the recipe search API and am currently re-implementing this feature. This is a large feature to work on so this will be taking up some of my time for the next week or so. I am also finishing off 2 more assignments for 2 separate modules, and studying for my final exams.

My Reflection

Time has really flown through, and I know I have a lot of work still to do in the next few weeks until my presentation and I plan to have a full functional application doing 'hopefully' all the features I have set out to do.

Intended Changes

I have a few more ideas for newer features, that I will implement in good time. I must also read over my Tech report and fix a few areas, and do a full testing section. I will be using stories and test cases. These are what I'm most comfortable with as I have previous experience as QA engineer.

Supervisor Meetings

Date of Meeting: ----

Items discussed:

I plan on having 1 last meeting with Cristina, in a more 1-to-1 scenario.