Deliverable #1 - Software Requirements Specification
SE 3A04: Software Design II – Large System Design

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1 Introduction

The following section provides an overview of the entire software requirements specifications document.

1.1 Purpose

The purpose this document is to outline the requirements for the "BEER'D" application. This program will be developed as a mobile android application and will be available on the Google Play Store. This document is intended for the developers of the application, Professor Ridha Khedri, teaching assistants for SE 3A04, and any other software engineers or students interested in this project.

1.2 Scope

The software product to be produced is known as the "BEER'D" mobile application. This application will allow a user to identify a certain type of beer. This will be accomplished by three experts on the colour of beer, taste of beer, and type of beer, who will form their best choice as to what kind of beer the user describes when selecting some predefined inputs. The application will display these results, display a map of nearby LCBO's and Beer Store's according to the user's current location, as well as some social media sharing features.

1.3 Definitions, Acronyms, and Abbreviations

N/A

1.4 References

a) Beer Buddy app description on Google Play
https://play.google.com/store/apps/details?id=com.s2it.beerbuddy&hl=en

b) Untappd app description on Google Play
https://play.google.com/store/apps/details?id=com.untappdllc.app&hl=en

c) Provide a complete list of all documents referenced elsewhere in the SRS

d) Identify each document by title, report number (if applicable), date, and publishing organization

e) Specify the sources from which the references can be obtained

1.5 Overview

a) The rest of the document will outline general characteristics of the product, and the kind of environment it will be released it. What the product can do and is limited to will be explained more thoroughly as well as a complete description of its functional and non-functional requirements.

b) Section 2 will describe the more general aspects of the product such as its relation with related products, as well as other systems. It will describe a summary of its functions and its interaction with the user as well constraints, assumptions, and potential requirements for future versions of the product. Section 3 and 4 will have a more extensive statement about the product's functional and non-functional requirements.

2 Overall Description

"What is this Beer?" provides users who are of legal age to purchase alcohol to identify a beer reflective of their preferences and provide them with a method of locating a place that supplies such beer. Locations are specific to LCBO and Beer Store and are powered by Google Maps API. The application should be usable by anybody with general knowledge of mobile technology.

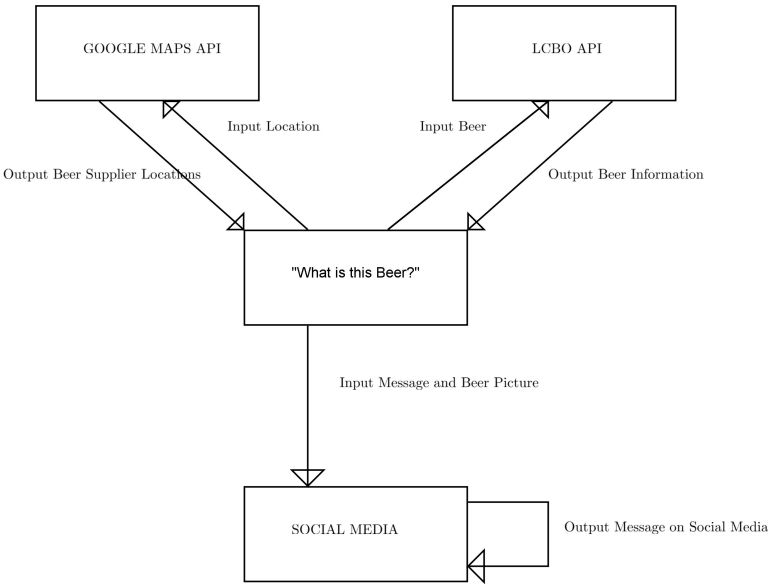
2.1 Product Perspective

a) There are other applications similar to "What is this Beer?" called "Untappd" and "Beer Buddy." Untappd allows the user to find nearby beers and bars and features based around that idea while Beer Buddy allows the user to find out more about a certain beer by UPC code. This application combines the most practical aspects of these applications such as outputting beer stores and beer information via search bar.

b) This product is completely separate from the applications mentioned above and is a standalone product.

c) The product uses interfaces from systems such as Google Maps and LCBO in order to enable the functionality of the location feature and output beer information respectively. It also connects to social media networks such as Facebook, Twitter, and Instagram in order to share a message about the beer picked.

d)



2.2 Product Functions

The software should be able to:

a) Search for beers with particular attributes

b) Output beer information of selected beer

c) Locate closest locations to obtain selected beer

d) Share the beer information on social media

e) Be downloaded on an android platform

2.3 User Characteristics

1. The User will need enough knowledge of smartphone use to be able to download and launch the application.

2. The User also needs to have enough knowledge of beer to identify the taste and type desired.

2.4 Constraints

1. Location functionality only works if location is enabled by the client.

2.5 Assumptions and Dependencies

1. The application depends on the beer database provided by the beer API used.

2.6 Apportioning of Requirements

1. The addition of wines, sprites and other beverages can be added in future version.
2. Other experts to assist the user in finding the desired beer may also be added.

3 Functional Requirements

The following section contains the details about all of the functional requirements about the system. The requirements are split up by viewpoints, and then again by business events, before they go into detail about the functions of the system.

VP1. User

BE1.1 Information About a Beer is Requested

i. The system shall display an input screen for the user, where the user will select from a list of predefined words for three separate categories: Colour of Beer, Taste of Beer, and Type of Beer.

ii. The experts (each corresponding to one category) will use the input provided by the user to choose what kind of beer the user may be describing. These results will be displayed on a forum screen, split up by category.

iii. Below the results chosen by the experts, the forum screen will contain a map of LCBO's and Beer Store's that are located within a 50km radius to the user's current location that offer each type of chosen beer by the experts.

iv. Below the map, there will be three forms of selection: a selection for Facebook, Twitter, and Instagram. If the user has their accounts synced to the system and they chooses one of these selections, the system shall create a message (less than 140 characters) and a picture (of one of the beers chosen by the experts) to share to the corresponding social media account.

BE1.2 Application Downloaded from the Play Store

i. The system shall tell the user that it requires location information. It will ask the user if they accept this condition. The application will only be downloaded if they select "Yes".

ii. The system shall ask the user if they wish to sync their social media accounts (Facebook, Twitter, Instagram) to the application. If they select "Yes", then clicking the social media buttons on the forum screen will always open the respective social media website already logged in with the user's credentials. If they select "No", then selecting the social media buttons of the forum screen will ask the user to log on to the respective social media account every time.

iii. The system shall encrypt any social media account credentials and information given to the application.

BE1.3 User wants to view general information about beer.

i.

ii.

iii.

BE1.4 User wants to request information about a specific beer.

i.

ii.

iii.

BE1.5 User wants to review previous searches.

i.

ii.

iii.

BE1.6 User wants to sync their social media accounts to the application.

i.

ii.

iii.

VP2. Developer

BE2.1 Developer updates the API(s).

i. The system must be able to request and send information to the desired API(s).

ii. The system shall update it's beer selection based on the data provided in the API(s).

BE2.2 Developer wants to change or swap an expert.

i. The system must be able to support addition or removal of an expert as requested.

4 Non-Functional Requirements

4.1 Look and Feel Requirements

4.1.1 Appearance Requirements

LF1. Each menu shall be clearly labeled and each page shall be accessible.

4.1.2 Style Requirements

LF1. "What is this Beer" shall operate with a simple GUI, and easy to understand layout.

4.2 Usability and Humanity Requirements

4.2.1 Ease of Use Requirements

UH1. The application shall be eary for a person aged 19+ in able condition to understand and use all of its features.

4.2.2 Personalization and Internationalization Requirements

UH1. The application shall retain the users preferences.

4.2.3 Learning Requirements

UH1. The application shall be able to be used by members of the public with no previous training.

4.2.4 Understandability and Politeness Requirements

UH1. "What is this Beer" shall use words and symbols understandable by its user community.

UH2. "What is this Beer" shall hide details of its constructions from the user.

4.2.5 Accessibility Requirements

UH1. The application shall be useable by users with any ability.

4.3 Performance Requirements

4.3.1 Speed and Latency Requirements

PR1. All valid interactions between the user and "What is this Beer" should have maximum response time of 0.5 seconds before showing a sign to the user that the request was received.

PR2. The application shall load in under 10 seconds on a Bell Sympatico or equivalent connection.

4.3.2 Safety-Critical Requirements

PR1. *N/A*

4.3.3 Precision or Accuracy Requirements

PR1. Any distance calculations shall be accurate to within two decimal places.

4.3.4 Reliability and Availability Requirements

PR1. The application will be usable for 24 hours per day, 365 days per year (Beer Store/LCBO availability may vary by user).

4.3.5 Robustness or Fault-Tolerance Requirements

PR1. *N/A*

4.3.6 Capacity Requirements

PR1. "What is this Beer" shall accomodate its users data needs.

4.3.7 Scalability or Extensibility Requirements

PR1. The application shall be able to process no less than 100 user interactions per minute.

4.3.8 Longevity Requirements

PR1. The application should operate as long as it is installed on a users device.

4.4 Operational and Environmental Requirements

4.4.1 Expected Physical Environment

OE1. The product shall be used in an environment with access to the internet

OE2. The product shall function in any environment that the device hardware can function.

4.4.2 Requirements for Interfacing with Adjacent Systems

SR1. The product shall be connected to the internet and have access to Google Maps API.

4.4.3 Productization Requirements

OE1. The product will be released on the Google Play Store for all Android devices.

OE2. The product shall be distributed as an Android Application Package(.apk) file.

4.4.4 Release Requirements

OE1. The product will have one single release date on April 3, 2016.

4.5 Maintainability and Support Requirements

4.5.1 Maintenance Requirements

MS1. *N/A*

4.5.2 Supportability Requirements

MS1. The product will give a brief tutorial on the basic features after it's installation on to the users Android device.

MS2. The product will offer a "Help" section to provide the user with assistance.

4.5.3 Adaptability Requirements

MS1. The product may eventually be able to run on web browsers and iOS devices.

4.6 Security Requirements

4.6.1 Access Requirements

SR1. All users will have access to the functionality of the product.

SR2. No user shall have access to another users social media information.

4.6.2 Integrity Requirements

SR1. The product shall be protected from intentional abuse.

4.6.3 Privacy Requirements

SR1. The product will not store users personal information.

SR2. The product shall protect the transfer of the users information if they choose to sign into a social media application.

4.6.4 Audit Requirements

SR1. *N/A*

4.6.5 Immunity Requirements

SR1. *N/A*

4.7 Cultural and Political Requirements

4.7.1 Cultural Requirements

CP1. The product shall not be offensive to religious or ethnic groups.

4.7.2 Political Requirements

SR1. *N/A*

4.8 Legal Requirements

4.8.1 Compliance Requirements

LR1. The product shall abide by all licenses used.

4.8.2 Standards Requirements

SR1. *N/A*

A Division of Labour

Team Member	Student Number	Contribution	Signature
Arthur Chen	1306616	Section 1-2	
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Surinder Gill	1308896	Section 1-3	
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Table 1: Contributions and Signatures of Team Members