Deliverable #1 Template

SE 3A04: Software Design II – Large System Design

Contents

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1 Introduction

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

1.1 Purpose

a) The purpose this document is to outline the requirements for the "What is this Beer?" application. This program willbve developed as a mobile android application and will be available on the Play Store.

b) 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

a) The software product to be produced is known as the "What is this Beer?" mobile application.

b) 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.

c) Describe the application of the software being specified, including relevant benefits, objectives, and goals

d) Be consistent with similar statements in higher-level specifications (e.g., the system requirements specification), if they exist

1.3 Definitions, Acronyms, and Abbreviations

a) **LCBO:** The Liquor Control Board of Ontario is a non-share capital provincial Crown corporation in Ontario, Canada.

b) **Beer Store:** The Beer Store is the trading name for Brewers Retail, a privately owned chain of retail outlets selling beer and other malt beverages in the province of Ontario, Canada, founded in 1927.

c) **Play Store:** Google Play Store or Google Play, and originally the Android Market, is a digital distribution platform operated by Google.

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 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 a way 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.

This section of the SRS should describe the general factors that affect the product and its requirements. It does not state specific requirements; it provides a background for those requirements and makes them easier to understand.

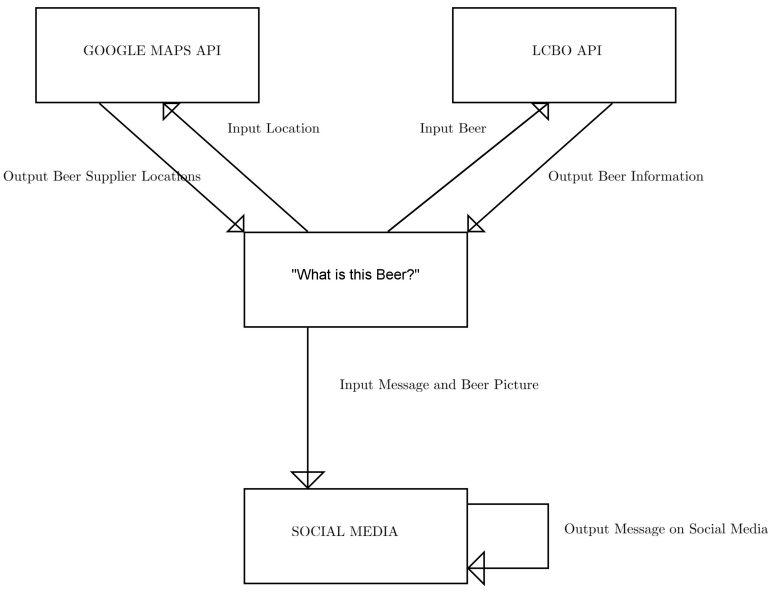
2.1 Product Perspective

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 a basic knowledge of smartphone use to be able to download, run and use the application.
2. The User also needs to have enough knowledge of beer to identify the taste and type desired.

2.4 Constraints

1. The application requires a desired input that can be predicted by the application.
2. The information found within the database will limit the information and locations that may be provided to the user.
3. Location functionality only works if location is enabled by the client.
4. The types of beer offered at local store locations will vary.

2.5 Assumptions and Dependencies

1. The application depends on information provided by the database.

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.

DON'T FORGET TO DELETE THIS USELESS AF PARAGRAPH BELOW

This section of the SRS should contain all of the software requirements to a level of detail sufficient to enable designers to design a system to satisfy those requirements, and testers to test that the system satisfies those requirements. Throughout this section, every stated requirement should be externally perceivable by users, operators, or other external systems. These requirements should include at a minimum a description of every input (stimulus) into the system, every output (response) from the system, and all functions performed by the system in response to an input or in support of an output.

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 buttons. A button for Facebook, a button for Twitter, and a button for Instagram. If the user has their accounts synced to the system and they click one of the buttons, 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.

VP2. Developer

BE2.1 LCBO or Beer Store Starts Offering a New Beer (??? I think the API will update automatically but whatever)

i.

ii.

iii.

BE2.2 Ratings and Feedback are given to the Application (from Play Store) (??? - again, not sure if this is the best)

i.

ii.

iii.

VP3. Apparently "Application" can also be a viewpoints??? I don't think we need it.

BE3.1 i.

ii.

iii.

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 apllication 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.

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.

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.

4.4.2 Requirements for Interfacing with Adjacent Systems

OE1.

4.4.3 Productization Requirements

OE1.

4.4.4 Release Requirements

OE1.

4.5 Maintainability and Support Requirements

4.5.1 Maintenance Requirements

MS1.

4.5.2 Supportability Requirements

MS1.

4.5.3 Adaptability Requirements

MS1.

4.6 Security Requirements

4.6.1 Access Requirements

SR1.

4.6.2 Integrity Requirements

SR1.

4.6.3 Privacy Requirements

SR1.

4.6.4 Audit Requirements

SR1.

4.6.5 Immunity Requirements

SR1.

4.7 Cultural and Political Requirements

4.7.1 Cultural Requirements

CP1.

4.7.2 Political Requirements

CP1.

4.8 Legal Requirements

4.8.1 Compliance Requirements

LR1.

4.8.2 Standards Requirements

LR1.

A Division of Labour

Team Member	Student Number	Contribution	Signature
Arthur Chen	1306616	Sections 1.4 to 2.3	
Chris Campbell			
Johnny Endrizzi			
Mitchell Coovert			
Surinder Gill			
Terin Dhadda	1312555	Table of Contents and Sections 1, 3, A	

Table 1: Contributions and Signatures of Team Members

IMPORTANT NOTES

- Be sure to include all sections of the template in your document regardless whether you have something to write for each or not
  - If you do not have anything to write in a section, indicate this by the *N/A*, *void*, *none*, etc.
- Uniquely number each of your requirements for easy identification and cross-referencing
- Highlight terms that are defined in Section 1.3 (**Definitions, Acronyms, and Abbreviations**) with **bold**, *italic* or underline
- For Deliverable 1, please highlight, in some fashion, all (you may have more than one) creative and innovative features. Your creative and innovative features will generally be described in Section 2.2 (**Product Functions**), but it will depend on the type of creative or innovative features you are including.