Deliverable #2 – High-Level Architectural Design Document

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1 Introduction

The following section provides a brief overview of the entire document.

1.1 Purpose

The purpose of this document is to lay out the high level architectural design of the "BEER'D" application. It will first give a description of the system and a general overview of what it is for, how it is expected to be used, and why it is being developed. It also contains information about the variety of use cases for the application, an analysis class diagram, a breakdown of the intended architecture design, and finally a class responsibility collaboration breakdown. This document is intended primarily for the developers of the application, the professor, and the teaching assistants.

1.2 System Description

The "BEER'D" system is a mobile application that aims to solve the question: "What beer is this?" This application is primarily being developed as a project for the third year Software Architecture class (course code SE 3A04) taught at McMaster University. A team of 6 students will design, develop, and create the application.

The "BEER'D" application will take specific inputs from a user. Based on these inputs, varying "experts" will attempt to analyse and come up with their best prediction (based on data provided by publicly available API's) as to which beer the inputs may be identifying. The application will return and display a list of possible answers in a forum. Within this forum, users will also be able to share their answers on popular social media networks or find local stores which sell the beers referred to in the answers - based on their current location in an map.

1.3 Overview

The rest of the document is split up into four main sections:

- The first section, Use Case Diagram, will contain each use case associated with the application.
- The second section, Analysis Class Diagram, will contain the analysis class diagram for the application based upon the use case diagram.
- The third section, Architectural Design, will provide an overview of the overall architectural design for the application. It will first identify and provide reasoning for the chosen software architecture. Then, it explain the division of the system into subsystems and describe each subsystem.
- The fourth and final section, Class Responsibility Collaboration, will contain the "CRC Cards" of the application.

2 Use Case Diagram

The following section provides a use case diagram for the application.

a) Each use case appearing in the diagram should be accompanied by a text description.

3 Analysis Class Diagram

This section should provide an analysis class diagram for your application.

4 Architectural Design

This section should provide an overview of the overall architectural design of your application. You overall architecture should show the division of the system into subsystems with high cohesion and low coupling.

4.1 System Architecture

a) Identify and explain the overall architecture of your system

b) Be sure to clearly state the name of the architecture

c) Provide the reasoning and justification of the choice

d) Provide a structural architecture diagram showing the relationship among the subsystems (if appropriate)

4.2 Subsystems

a) Provide a brief description of each subsystem. Be sure to document its purpose and relationship to other subsystems.

5 Class Responsibility Collaboration (CRC) Cards

This section should contain all of your CRC cards.

a) Provide a CRC Card for each identified class

b) Please use the format outlined in tutorial, i.e.,

Class Name:	
Responsibility:	**Collaborators:**

A Division of Labour

Team Member	Student Number	Contribution	Signature
Arthur Chen	1306616		
Christopher Campbell	1143732		
Johnny Endrizzi	1310603		
Mitchell Coovert	1306701		
Surinder Gill	1308896		
Terin Dhadda	1312555	Title, TOC, Introduction	

Table 1: Contributions and Signatures of Team Members

IMPORTANT NOTES

- Please document any non-standard notations that you may have used
  - *Rule of Thumb*: if you feel there is any doubt surrounding the meaning of your notations, document them
- Some diagrams may be difficult to fit into one page
  - It is OK if the text is small but please ensure that it is readable when printed
  - If you need to break a diagram onto multiple pages, please adopt a system of doing so and thoroughly explain how it can be reconnected from one page to the next; if you are unsure about this, please ask about it
- Please submit the latest version of Deliverable 1 with Deliverable 2
  - It does not have to be a freshly printed version; the latest marked version is OK
- If you do NOT have a Division of Labour sheet, your deliverable will NOT be marked