

Deliverable #2 Template

SE 3A04: Software Design II – Large System Design

1 Introduction

This section should provide an brief overview of the entire document.

1.1 Purpose

- a) Delineate the purpose of the document
- b) Specify the intended audience for the document

1.2 System Description

- a) Give a brief description of the system. This could be a paragraph or two to give some context to this document.

1.3 Overview

- a) Describe what the rest of the document contains
- b) Explain how the document is organised

2 Use Case Diagram

This section should provide a use case diagram for your 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

4.1 System Architecture

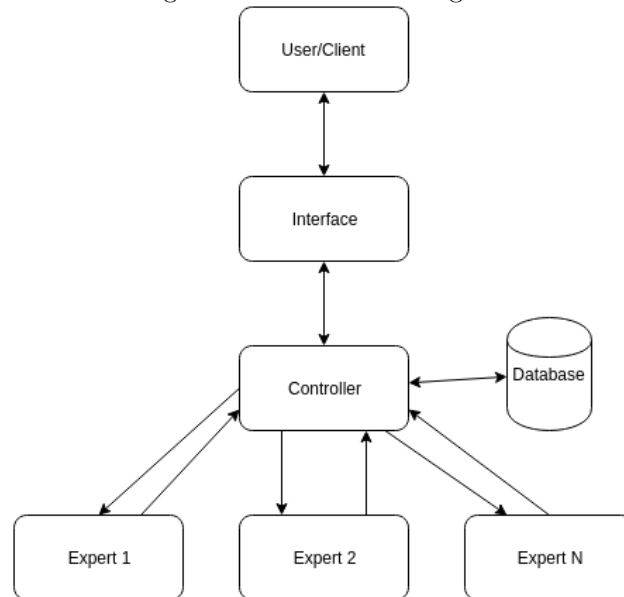
The main purpose of our application is to allow users to identify a beer by its specific characteristics. The task is performed by providing information about the beer to different experts from a central module. Therefore, it lends itself to have an overall architecture that is data centered.

The application will take the information received from the user and pass it to the central data center. The data center will then request information from the applicable experts. Due to the direction of the requests, the architecture will more specifically be a blackboard architecture.

The choice to use blackboard architecture is because of the benefits it offers with scalability and concurrency. More experts can be added to the application as it progresses without any significant changes in the

structure of the application. It also allows the system to function quickly due its concurrent processes. Each expert that is consulted can perform its request at the same time.

Figure 1: Architecture Diagram



4.2 Subsystems

4.2.1 Client/User

The person who will be interacting with the application. Performs actions on the interface.

4.2.2 Interface

The point of interaction between the user and the controller. It offers the user the ability to perform searches for beers and other actions. It sends and receives data from the controller.

4.2.3 Controller

The controller receives the information from the interface. It uses the information to perform actions on the database and the experts. It will then provide data to the interface.

4.2.4 Experts

Experts process information and requests sent to them by the controller and pass information back.

4.2.5 Database

The database stores all of the information on the beers to be searched through. It will receive requests from the controller and respond with the applicable data.

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

Include a Division of Labour sheet which indicates the contributions of each team member. This sheet must be signed by all 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