

CS3203 Software Engineering Project

## AY22/23 Semester 1

**Project Report – System Overview**

Team \_\_

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| --- | --- | --- |
| Team Members | Student No. | Email |
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**Consultation Hours:** <Insert day and time here>

**Tutor:** <Insert name here>

This report needs to be used as the presentation material for Milestone 2 and 3 oral presentations. Therefore, keep bulleted information. You are not required to elaborate and detail out anything specifically. However, you should be able to walk through the report during the presentation and explain your project progress.

# 1 System Architecture

Main components [UML class / component diagram], indicate components that has public APIs for other components, e.g. can colour / highlight in the diagram.

# 2. Component Architecture and Design

## 2.1 SP

## 2.2 PKB

## 2.3 PQL

**Update below details for any changes you made after Milestone 1 (such as design changes, changes in APIs, changes in class/sequence diagram due to design changes etc.)**

**Add a paragraph/table to briefly discuss the changes made and reasons for making those changes.**

**For each major component (SP, PKB and PQL), we need three details:**

1. Class Diagram + core sequence diagram to show how external component interact.
2. List of APIs (abstract list) for each component
3. Major design decisions for each component and approach taken to conclude certain decisions (Brief details on the design decisions required. Detailed explanation is not required). Sample given below in Grey colour.

Bulleted list of SE principles and Design patterns used (Just a list and for the design patterns, mention which component/place it is used). Link to code for each List item wherever applicable/needed.

*SAMPLE*

*Application of design principles:*

*• Dependency Inversion: Source Processor and Query Processor depend on…*

*• Interface Segregation: The PKB’s API is split into two smaller "insertion …*

*Use of design patterns*

*• The use of the Visitor pattern to separate the Query …*

*• The use of the Abstract Factory pattern to allow …*

# 2 Test Strategy (1-2 pages)

**Test statistics should be illustrated using some suitable charts.**

**All the following 4 sub-points should be updated to reflect Milestone 2 details**

* How was testing done?
* Test statistics (Chart illustrating #test cases by components, #test cases by type of testing (unit, system, integration etc.))
* Automation approach
* Bug handling approach

# 3. Plan for Milestone 3 ( ½-1 Page)

**Remove <Plan for Milestone 2> from report and update with Milestone 3 plan. Be specific**

Prepare a plan for Milestone 3, Major features that are planned for Milestone 3 and provide the same here in the form of a Gantt Chart or any other suitable representation (such as a neat table). Include test efforts, Integration efforts etc.

# 4 Extension Proposal (2-2.5 pages in total)

In Milestone 2, you are to propose and formally define an extension for SPA from any part of the specification (SIMPLE source code, design abstractions, PQL specification).

Your extension proposal should cover:

1. Definition of the extension

2. Changes required to your existing system and its components  
    \* Are there any new components that needs to be included in your system?  
    \* Does any components need to undergo changes?

3. Implementation details  
    \* what are the data structures and algorithms necessary to implement the extension?

4. Possible challenges to implementation and testing, and mitigation plans

5. Benefits to SPA

# Estimated number of pages for Milestone 2

(It is only a guideline) (Remove this section from your report)

|  |  |
| --- | --- |
| **Title** | **Estimated number of pages** |
| System Architecture | 1 Page |
| Component Architecture and Design | 2.5-3 Pages per component |
| Test Strategy | 1-2 Pages |
| Milestone 2 Plan | ½-1 Page Gnatt Chart or a Table |
| Extension proposal | 2-2.5 pages |
| **TOTAL** | **Maximum 15 pages** |
| **NOTE: This page limit is excluding Front page and Table of contents** | |