

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

View Previous Searches The user must be able to review their previous searches. All searches should be saved so that they may be displayed in this list. The data saved should consist of the inputs entered to return the result.

Get More Song Info Each song result is linked to more detailed information about the artist and song. The user should have access to this more detailed information on request. This use case cannot be executed unless a song is searched for first.

Search for Song The user can search for a song based on the inputs given.

Input This use case is a generic use case that is extended by more specific input fields. These fields include Tempo Input, Lyric Input and Artist Input.

Tempo Input To input a tempo the user must tap on the screen at the desired tempo. This tempo is converted to a measurement in BPM for searching.

Lyric Input To input lyrics users will have the option to type some lyrics into the search field or speak into the device's microphone and translate their voice to text via the speech-to-text functionality. These lyrics are a sequence of words that can be found in the desired song.

Artist Input The artist input is the name of the artist that preforms the desired song. To input the artist the user may type the name into the search field or speak into the device's microphone and translate their voice to text via the speech-to-text functionality.

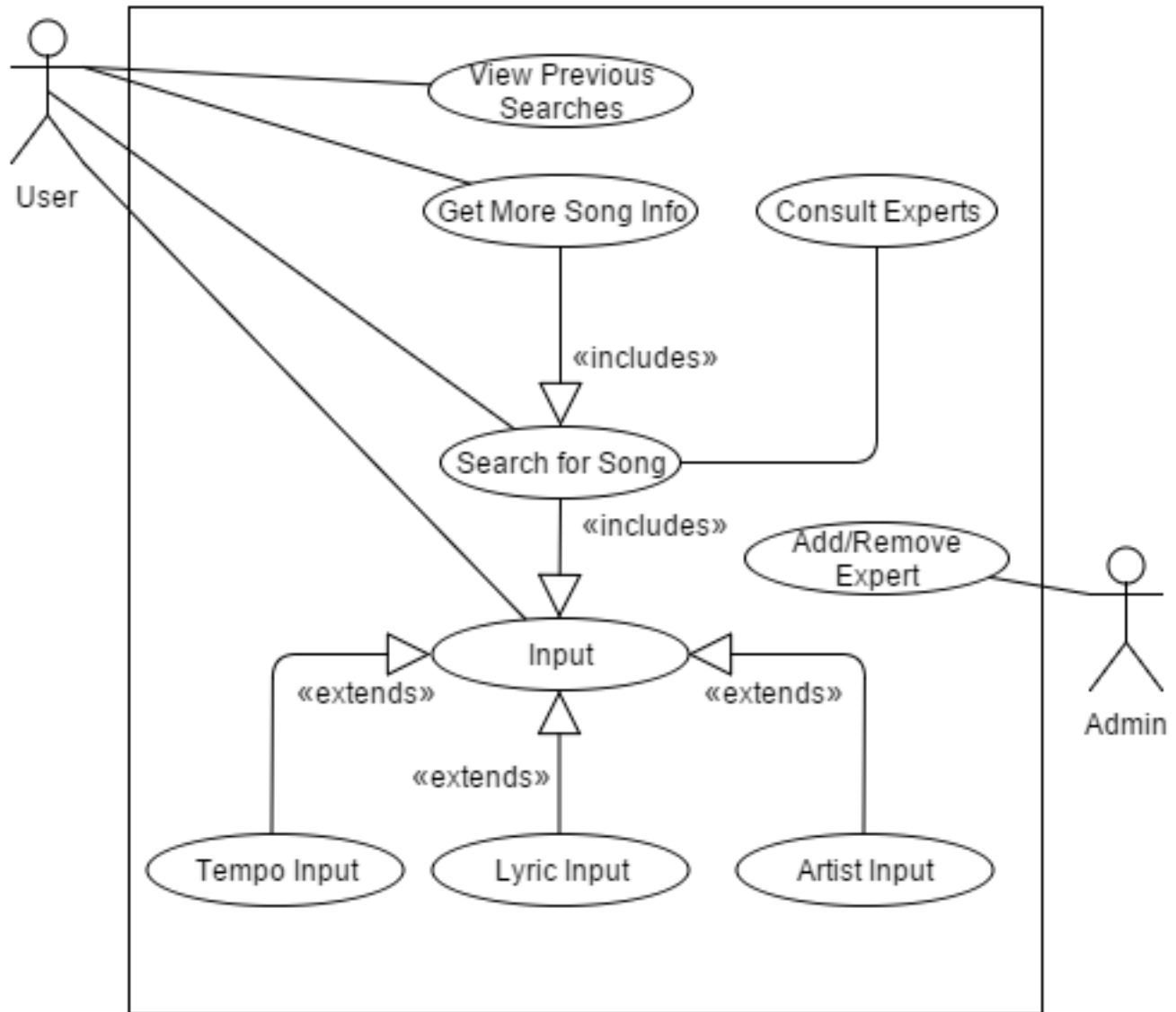


Figure 1: Use Case Diagram

Consult Experts Experts will be consulted to attempt to identify the desired song. They will work together to combine their opinions to decide on a song.

Add/Remove Expert The administrator may wish to take an expert out of the system or introduce a new expert. In order to do so they must contact the developer who will directly perform the switch.

3 Analysis Class Diagram

3.1 Noun Extraction

user No (outside of system)

previous searches Yes (boundary class) PreviousSearchPage

searches refers to search process, leads to the creation of controller class SearchController

success Yes (boundary class) SearchSuccessPage or SearchResults

error Yes (boundary class) SearchErrorPage

song info Yes (entity class) SongInformation

input refers to input process, leads to the creation of controller class InputController

tempo input Yes (boundary class)

lyric input Yes (boundary class)

artist input Yes (boundary class)

song database Yes (boundary class), Wrapper

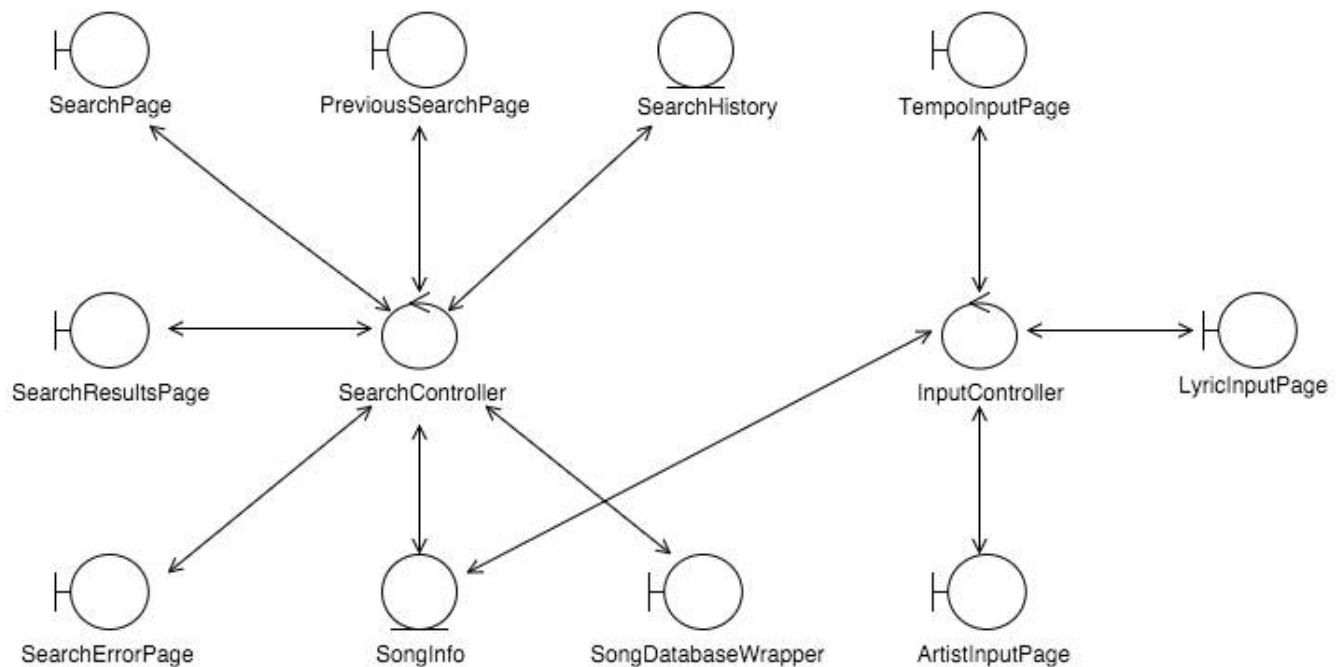


Figure 2: Analysis Case Diagram

4 Architectural Design

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

4.1 System Architecture

- Identify and explain the overall architecture of your system
- Be sure to clearly state the name of the architecture
- Provide the reasoning and justification of the choice
- 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

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