Game based learning

of

Sorting Algorithms

Software Engineering Lab (CS243) Assignment

Spring-2017 Session

<u>Design Document</u>

<u>Instructor</u>

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Group Number: 02

<u>Project Team Members</u>

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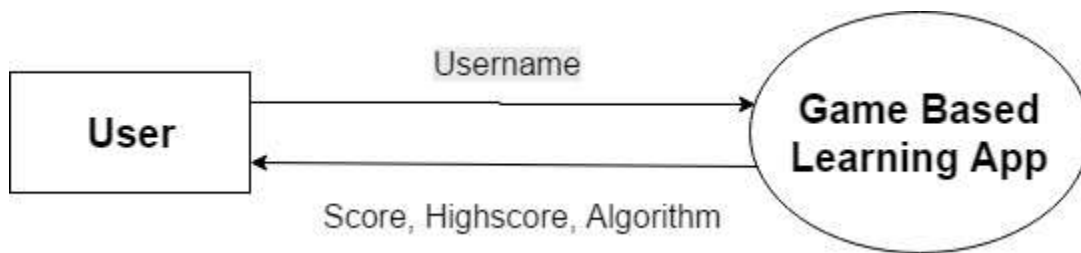*150101045 : Patoliya Meetkumar Krushnadas*

150101054 : Saket Sanjay Agrawal

Table of contents:
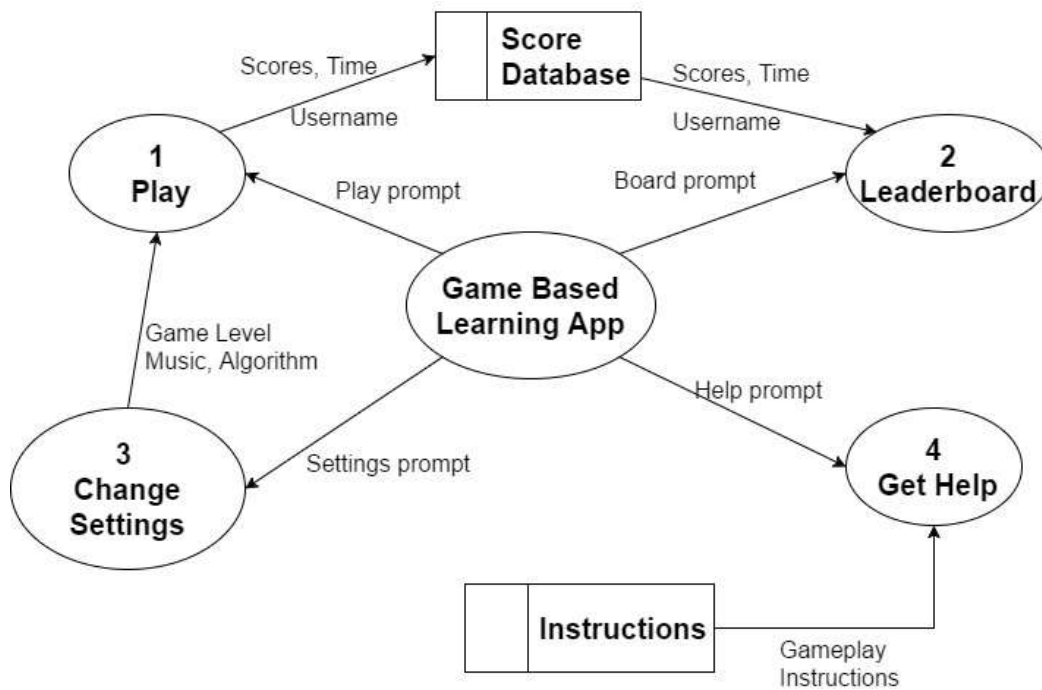
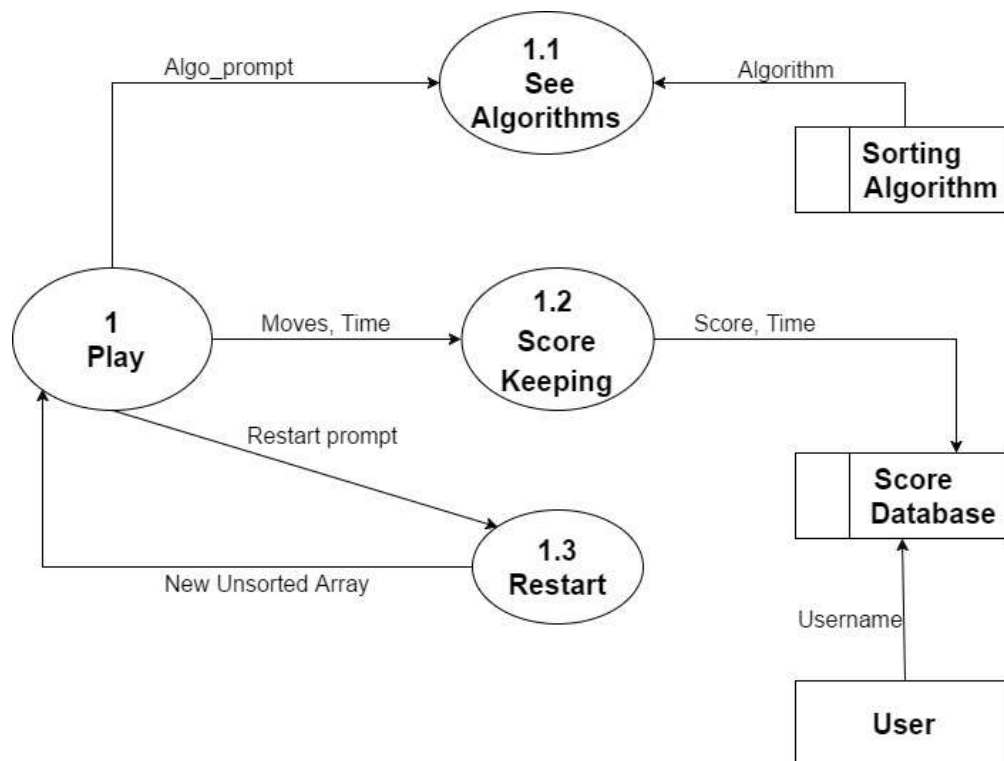# 1. Data Flow Diagrams

1.1 Context Level Diagram

1.2 Level 1 Diagram

1.3 Level 2 Diagrams

I.   Play

II. Leaderboard
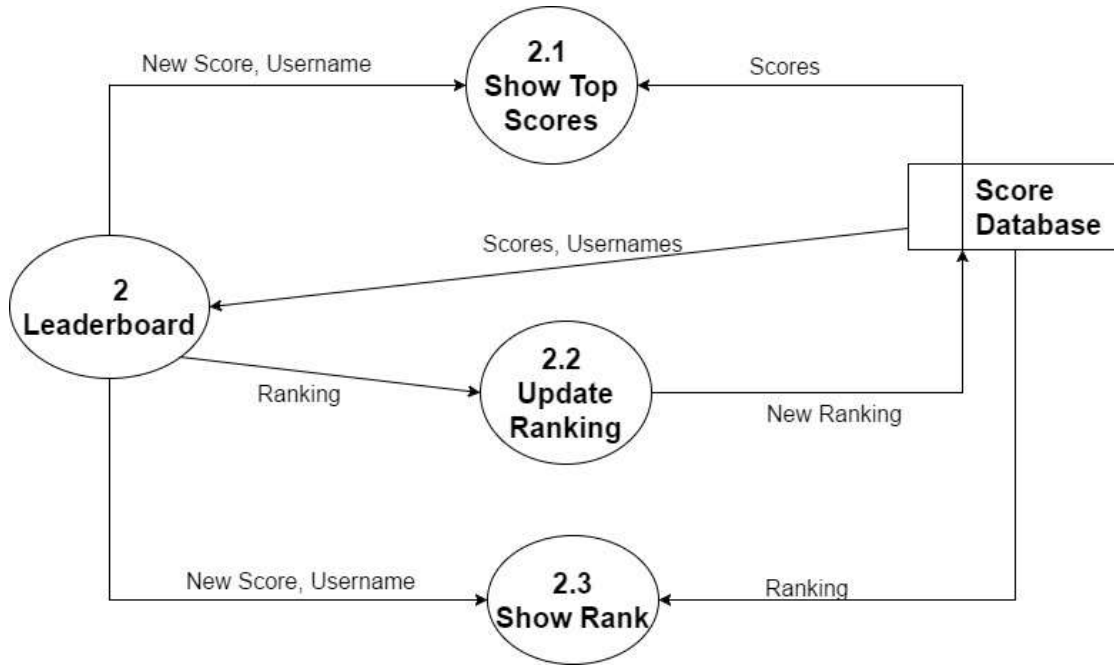
III.   Settings
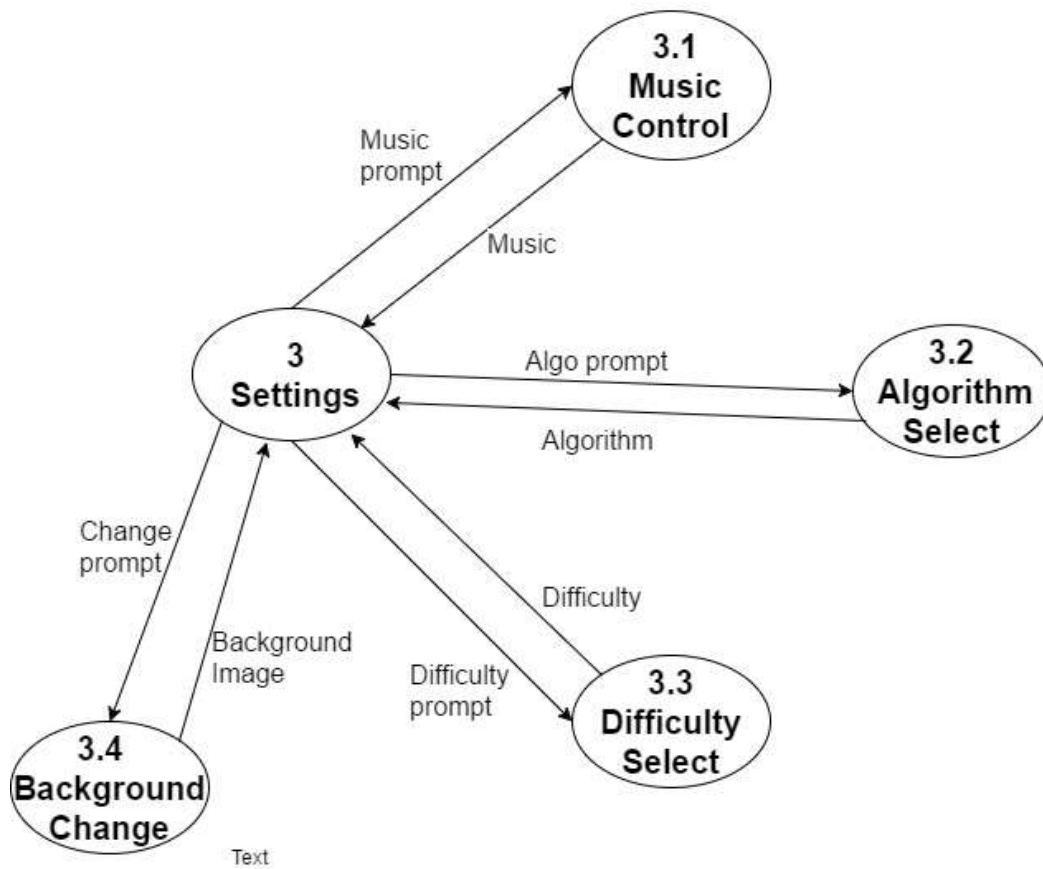
2. Process Decomposition Diagram

		Level 2	
1 Play	1.1 See Algorithm	1.2 Keep Score	1.3 Restart
Game App	2 Leaderboard	2.1 Show Top Scores	2.2 Update Rank	2.3 Show Rank
	3 Settings	3.1 Music Control	3.2 Algorithm Select	3.3 Difficulty Select	3.4 Background Change

Level 0   Level 1   Level 2
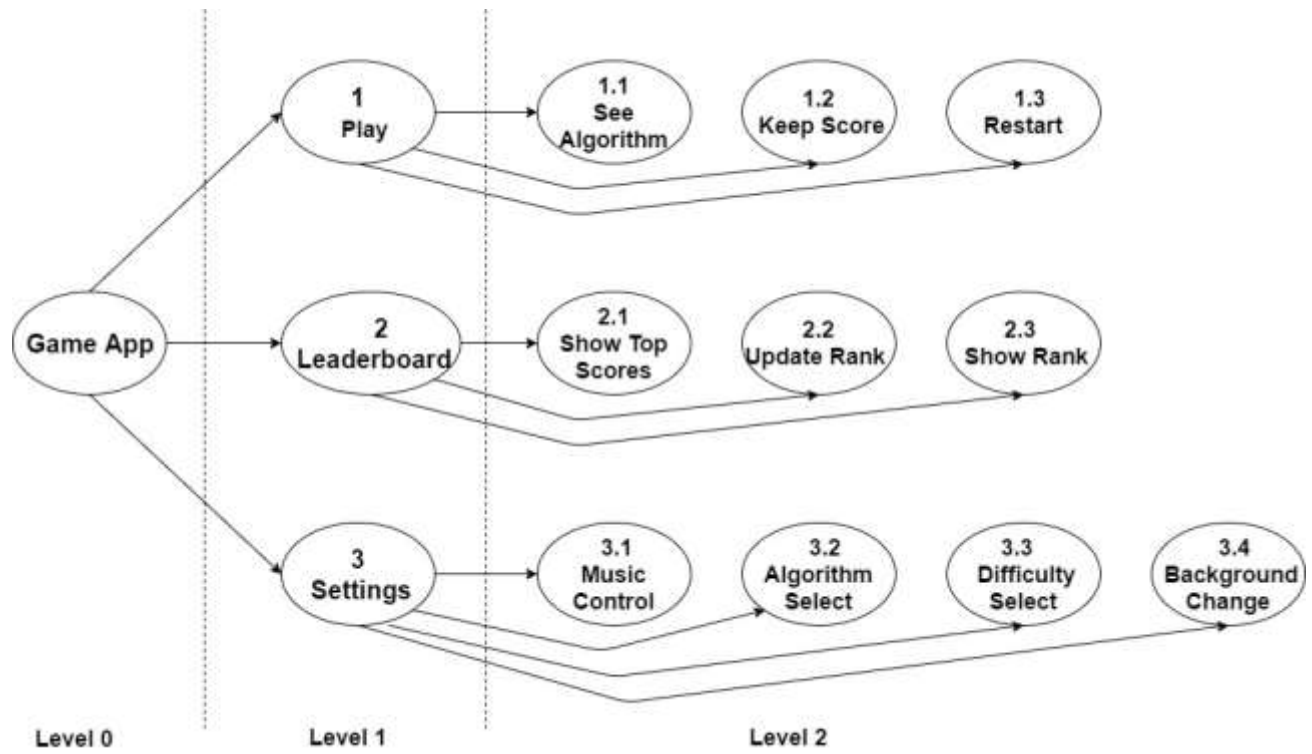
3. Data Dictionary

Field Name	Data Type	Length	Description
Rank	Number	<100	Rank of the user based on score and time
Username	String	4 to 16 characters	Username entered by the user
Score	Number	<1000	Score of the user in the game
Time	Time		Time taken by the user to complete the game
Swaps	Number	<1000	No. of swaps done by the user to make the array sorted
Retries	Number	<1000	No. of times user touches the restart option

4.   Entity Relationship Diagram