Mini Project Report

on

Memory Based Card Game

Submitted by

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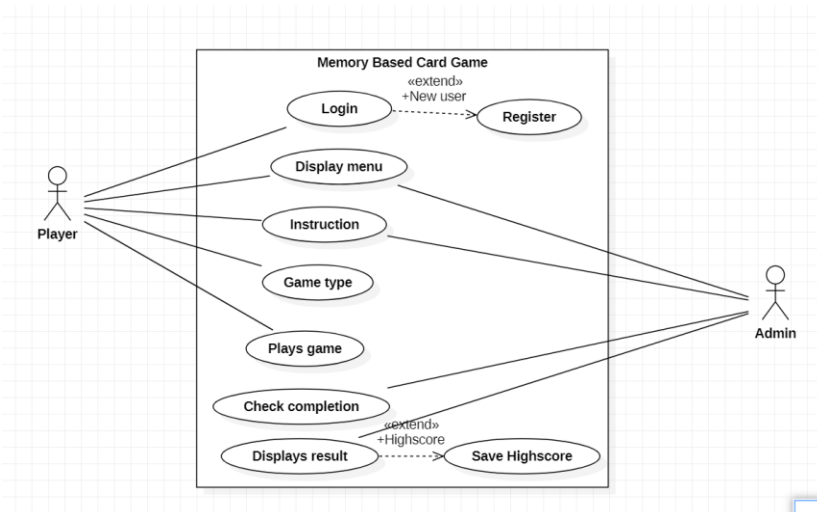
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1: Brief Description of the project

In a memory game, a matrix consisting of many smaller boxes will be available, the user's task will be to win the game by matching patterns on particular boxes. When the user clicks one box, it should show its pattern – if the next box clicked on has a similar pattern, both boxes should remain flipped, and the score should be added. If the second box flipped does not have a similar pattern, both boxes should stop showing their pattern.

There is a lot of scope in doing this, and a lot of possible improvements. For instance, there can be a way of storing the number of moves required as well as a leader board system for hosting folks that have the best memory possible. If an "easy mode" is desirable, then a way to store moves and move back and forth between each move can be added.

2: Use Case diagram:

3: Class Diagram:

Cards

+Card ID: int
+Matched: boolean

+setID()
+setFront()
+setBack()

Board

+List of Cards: Cards[0...*]
+Selected card1: Cards
+Selected card2: Cards
+Turns taken: int

+Flip Card()
+Check Cards()
+Check Completion()

+0......*   +1

+1

+1

Game

+Number of games: int
+Board: Board

+Game Type()
+Instructions()
+Start Game()
+Quit game()