

Software Requirement Specification (SRS) For Game Center

Project Title : Game Center

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Subject : Advanced Technologies

Branch : Computer Engineering (Sem – 5)

Description :

Game Center is a online site in which user can play various types of games. User can see previous games score board (max score, winners etc.)

Here are some of the games.

1.Tic-Tac-Toe

Info :

Tic-tac-toe (American English), noughts and crosses (British English), or Xs and Os is a paper-and-pencil game for two players, X and O, who take turns marking the spaces in a 3×3 grid. The player who succeeds in placing three of their marks in a horizontal, vertical, or diagonal row is the winner.

The Tic Tac Toe is a great way to pass your free time whether you're standing in a line or spending time with your kids. Stop wasting paper and save trees. Because of the simplicity of Tic Tac Toe, it is often used as a pedagogical tool for teaching the concepts of good sportsmanship and the branch of artificial intelligence.

Features :

(a) Single Player

Player vs Computer

- in this mode computer will automatically decide best possible move and play accordingly.

(b) Multi-Player

2 player

- over here 2 player can play with each others

(c) Background Music

(d) At the end of the game **Winner Player** and restart option.

Conclusion :

The Tic Tac Toe game is most familiar among all the age groups.

Intelligence can be a property of any purpose-driven decision maker. This basic idea has been suggested many times. An algorithm of playing Tic Tac Toe has been presented and tested that works in efficient way. Overall the system works without any bugs.

Wikipedia : <https://en.wikipedia.org/wiki/Tic-tac-toe>

2. 15 puzzle

Info :

The n-puzzle is a classical problem for modelling algorithms involving heuristics. Commonly used heuristics for this problem include counting the number of misplaced tiles and finding the sum of the taxicab distances between each block and its position in the goal configuration.

The 15-puzzle (also called Gem Puzzle, Boss Puzzle, Game of Fifteen, Mystic Square and many others) is a sliding puzzle that consists of a frame of numbered square tiles in random order with one tile missing. The puzzle also exists in other sizes, particularly the smaller 8-puzzle. If the size is 3×3 tiles, the puzzle is called the 8-puzzle or 9-puzzle, and if 4×4 tiles, the puzzle is called the 15-puzzle or 16-puzzle named, respectively, for the number of tiles and the number of spaces. The object of the puzzle is to place the tiles in order by making sliding moves that use the empty space.

Here is final result of 15 Puzzle:

```
1  2  3  4
5  6  7  8
9  10 11 12
13 14 15 _
```

Feature :

- (a) Background Music
- (b) Option to select different values of N.
- (c) At the end of the game **Congratulation** message.

Wikipedia : https://en.wikipedia.org/wiki/15_puzzle

Development Tools and Programming Languages :

- (a) Visual Studio Code
- (b) Html
- (c) Css
- (d) Java Script
- (e) Mongo db (use to store or display score board of current game)

Extra Games :

As of now only two games are supported.

Extra games (given below) will be added if time permit.

- 3. sudoku solver
- 4. Snake game
- 5. Maze game