

# Web Programming Project 2 Paper

## Team

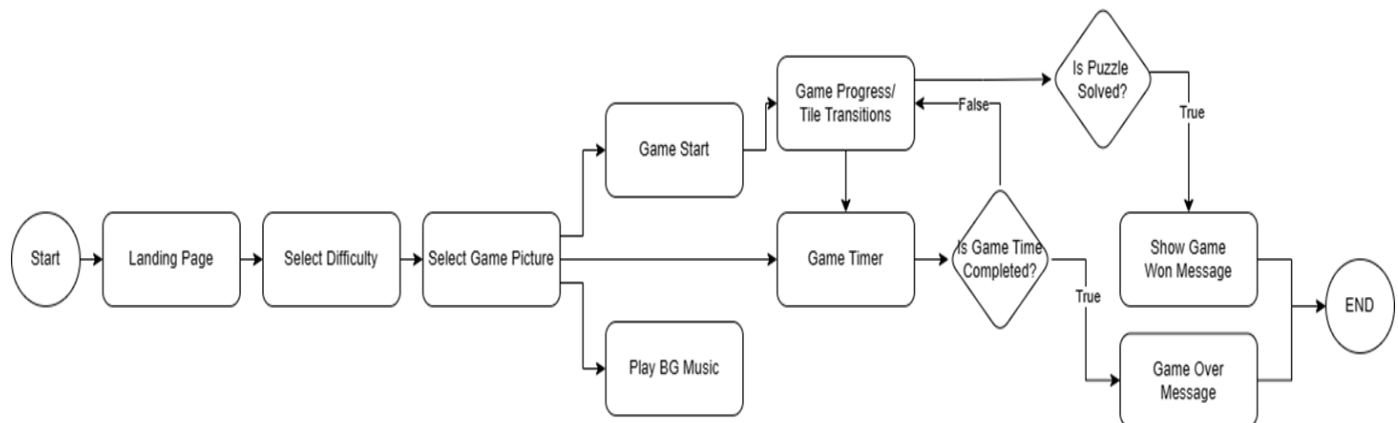
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**Project Name** - Fifteen Puzzle game

**Description** - Fifteen puzzle is the game to un-jumble its fifteen squares by repeatedly making moves that slide squares into the empty space.

**About Game** -Fifteen puzzles is a game in which we unjumble its fifteen squares by continuously performing moves that slide squares into the vacant space. The user interface has a perplexing picture with 15 tiles displayed and one blank square. The user picks each tile on the screen and moves it to the correct spot; therefore, and therefore the user must solve the problem in order to create the original artwork.

## UML Diagram -



## Shuffle Algorithm Logic -

When the game begins, the puzzle squares are rearranged in a random arrangement to provide the user with a tough challenge to complete.

The initial step in the process is to assign a tile position in a grid layout (X,Y)

Once the places are assigned, we arrange the tiles at random by swapping them out.

Following that, we must determine whether or not the puzzle is solvable.

We may test this by computing the inversions, or when one tile comes before another with a lower value.

If the problem cannot be solved, we must alter tiles by switching tiles with lower to higher numbers.

**Game Features -**

- 1.End of game notification
- 2.Animations and transitions
- 3.Game time with background music
- 4.Multiple Background
- 5.Different Puzzle Size Option

**Additional Features -**

- 1.Reset Button to start puzzle again

**Conclusion -** Implemented Fifteen puzzle game with attractive UI.