**Web Programming**

**Group Project #3**

**Team Leader:** Seung Lee

**Project Name:** Fifteen Puzzle

**YouTube Link:**

<https://www.youtube.com/watch?v=V8xmwiHoagY>

**Team Members:**

* George Soetan: Worked on the logic/JavaScript of how tiles move
* Seung Lee: Worked on the Logic/JavaScript of appending image to tiles as well as in the right position
* Chowdhury Mobin: Worked on the shuffle Logic for the puzzle

**Description:**

Made a fifteen puzzle that has fully playability in the sense that you can only move pieces that are able and incorporated our own twist to it.

**Test Cases**

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| Test ID | TC-FP-1 |
| Purpose of Test | Move a puzzle piece to the empty space |
| Test Environment | MacBook Pro 2019 / Google Chrome |
| Test Steps | The user clicks the puzzle piece, which has a green number when hovered over it. |
| Test Input | #Link |
| Expected Result | The puzzle piece moves to the empty space. |
| Likely Problems/Bugs Revealed | The puzzle piece stays at the same/disappears. |

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| --- | --- |
| Test ID | TC-FP-2 |
| Purpose of Test | Shuffling the puzzle pieces |
| Test Environment | MacBook Pro 2019 / Google Chrome |
| Test Steps | The user clicks the shuffle button. |
| Test Input | #Link |
| Expected Result | All puzzle pieces move to different positions every time user clicks shuffle. |
| Likely Problems/Bugs Revealed | The puzzle piece stays at the same position/only one puzzle piece moves every time shuffle is clicked. |

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| --- | --- |
| Test ID | TC-FP-3 |
| Purpose of Test | Movable puzzle pieces changes color |
| Test Environment | MacBook Pro 2019 / Google Chrome |
| Test Steps | The user hover over the pieces which can be moved. |
| Test Input | #Link |
| Expected Result | Puzzle pieces which can be moved change color. From black to green. |
| Likely Problems/Bugs Revealed | The puzzle piece does not change color. |

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| Test ID | TC-FP-4 |
| Purpose of Test | Music file |
| Test Environment | MacBook Pro 2019 / Google Chrome |
| Test Steps | The user tries to solve the puzzle. The user has already used 3 minutes of his time and have 5 minutes left to solve it. |
| Test Input | #Link |
| Expected Result | Music will start playing when the timer is at 4:59. |
| Likely Problems/Bugs Revealed | The music does not start or starts when user still have more than 5 minutes to solve the puzzle. |

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| --- | --- |
| Test ID | TC-FP-5 |
| Purpose of Test | End Game Notification |
| Test Environment | MacBook Pro 2019 / Google Chrome |
| Test Steps | The user tries to solve the puzzle. Solves the puzzle before the timer ends. |
| Test Input | #Link |
| Expected Result | The page will refresh and display “**You Won**!”. |
| Likely Problems/Bugs Revealed | Blank page opens or restarts the puzzle. |