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| --- | --- | --- |
| ***Rules/Constraints*** | ***Valid Equivalence classes*** | ***Invalid Equivalence Classes*** |
| Enter name | 1. Name entered | 1. Name not entered |
| Read from txt file | 1. File found | 1. File not found |
| Randomly select word | 1. Word selected | 1. Word unreachable |
| Guess must be a letter | 1. A-Z | 1. Has others |
| Max of 6 guesses | 1. Word guessed in < 6 guesses | 1. Word guessed in > 6 guesses |
| Same word cannot be used again | 1. Different word every game | 1. Same word appears twice or more |
| Name Characters (Has 1-20 characters) | 1. 2 char 2. 10 char | 1. 23 char 2. 1 char |
| Player name must be unique | 1. Name unique | 1. Name not unique |
|  |  |  |

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| --- | --- |
| ***Test Value*** | ***Test Equivalence # mapping*** |
| Austin | 1 |
| “” | 2 |
| File not found | 4 |
| Word\_db.txt | 3 |
| Guess = “G” | 7 |
| Guess = “9” | 8 |
| NumGuess < 6 | 9 |
| NumGuess > 6 | 10 |
| Used first time “Apple” = Word | 11 |
| Used second time “Apple” = word | 12 |
| AST-JEAN10 | 14, 1 |
| A | 16, 1 |
| AJ | 13, 1 |
| ABCDEFGHIJKLMNOPQRSTUVW | 15 |
| Austin (Second time) | 18 |
| Jeff (First time) | 17 |
|  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| ***Operation*** | ***Purpose*** | ***Object State*** | ***Expected Result*** |
| placeLetter() | Valid char is used | n/a | Ex: G |
| hangManPic() | Validate the correct picture is used at the appropriate guess | n/a | One guess = Only head |
| saveGame() | Be able to save a game in progress | n/a | Game Saved successfully |
| quitGame() | Able to quit a game at any time | n/a | Exit game successful |
| requestHint() | Hint is given to player | n/a | Letter given in word |
| newGame() | New game is made | n/a | Empty game is made for player |
| addPlayer() | Player is added to the scoreboard | n/a | Player stats are visible in scoreboard |
| existingGame() | Load game that is in progress | n/a | Previous game is displayed |
| validateWord() | Game is won is word is guessed | n/a | Player adds win if won, no win added if lost |
| getLetter() | Randomly get a letter from the word. (Used in hint and normal round) | n/a | Letter returned |
| gamePlayed() | Keep track of player games played | n/a | If gamePlayed=2, scoreboard should show 2 |
| checkWinner() | Check win condition after every play | n/a | If there are no more empty spaces and numGuesses != 6 |

