Tug Of Words Test Plan

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| Identification and Classification | Test Case 001: Create a Private Room |
|-----------------------------------|---|
| | System: Tug of Words |
| | Module: Lobby |
| | Severity: Crucial |
| | Classification: Functionality Test |
| Instructions | Open the Tug Of Words home page Select "private room" Select "join game" |
| Expected Result | A private game room should be created No public users should be added to private room, users can only join by invite |

| Identification and Classification | Test Case 002: Joining a public game room |
|-----------------------------------|---|
| | System: Tug of Words |
| | Module: Lobby |
| | Severity: Crucial |
| | Classification: Functionality Test |

| Instructions | Open the Tug Of Words home page Select "join game" |
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| Expected Result | User should be entered into a random public game room User should see other random people join the room as they log on As public users join, they should be added to one of the two teams |

| Identification and Classification | Case 003: Join a private game room |
|-----------------------------------|---|
| | System: Tug of Words |
| | Module: Lobby |
| | Severity: Crucial |
| | Classification: Functionality Test |
| Instructions | Have a friend create a private game room in Tug of Words Have the friend send you the generated private room URL Open the generated private room URL in your browser |
| Expected Result | User is added to a private game room that their friend is already in User selects which team they are added to No public users can join the game room Both the user and their friend can add other users by sharing the generated private room URL |

| Identification and Classification | Case 004: Automatic team distribution in public rooms System: Tug of Words Module: Lobby Severity: Important Classification: Functionality Test |
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| Instructions | Join a public game room |
| Expected Result | Once the user successfully joins the game room, they will be added to one of the two teams There are 3 different cases to be tested: If the two teams have an equal number of players on them when the user joins, the user will be placed randomly on one of the teams If the left team has more players on it than the right team, the user will be placed on the right team If the right team has more players on it than the left team, the user will be played on the left team |

| Identification and Classification | Case 005: Earn points for typing a word correctly |
|-----------------------------------|---|
| | System: Tug of Words |
| | Module: Word Check |
| | Severity: Crucial |

| | Classification: Functionality Test |
|-----------------|---|
| Instructions | Join a public/private game room Begin the game As words appear on the screen, type some of them correctly As words appear on the screen, type some of the incorrectly |
| Expected Result | Your individual contribution score should be incremented based on the number of people on your team for each word that you type correctly Your individual contribution score should not increase when you type a word incorrectly Your individual contribution score should decrease when you type a word incorrectly |

| Identification and Classification | Case 006: See individual point contributions during game |
|-----------------------------------|---|
| | System: Tug of Words |
| | Module: Scoring |
| | Severity: Important |
| | Classification: Functionality Test |
| Instructions | Have multiple users join a game Each user enter some words correctly Each user enter some words incorrectly |

| Expected Result | A leaderboard should be displayed with the top users from each team |
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| Identification and Classification | Case 007: See Individual points post-game |
|-----------------------------------|---|
| | System: Tug of Words |
| | Module: Scoring |
| | Severity: Important |
| | Classification: Functionality Test |
| Instructions | Join a game Enter some words correctly Enter some words incorrectly See score at the end of the game |
| Expected Result | Score should be aggregated and displayed in the UI |

| Identification and Classification | Case 008: User typing speed statistics |
|-----------------------------------|--|
| | System: Tug of Words |
| | Module: Scoring |
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| | Severity: Workaround |
|-----------------|---|
| | Classification: Functionality Test |
| Instructions | Join a game Type most words correctly Type some words incorrectly |
| Expected Result | At the end of the game, WPM, CWPM, and Accuracy should be displayed correctly |

| Identification and Classification | Case 009: Lose points when typing a word incorrectly |
|-----------------------------------|---|
| | System: Tug of Words |
| | Module: Scoring |
| | Severity: Important |
| | Classification: Functionality Test |
| Instructions | Join a game Type some words correctly Type some words incorrectly |

| Expected Result | Individual and team points should be decreased each incorrectly typed phrase |
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| Identification and Classification | Case 010: Pick a team when joining a private room |
|-----------------------------------|--|
| | System: Tug of Words |
| | Module: Lobby |
| | Severity: Crucial |
| | Classification: Functionality Test |
| Instructions | Join a private room (either by creating one or using a shared link) Choose Team 1 or Team 2 |
| Expected Result | If user selects Team 1 they'll be placed into Team 1. If user selects Team 2 they'll be placed into Team 2. |

| Identification and Classification | Case 011: Share a link to a private room with friends |
|-----------------------------------|---|
| | System: Tug of Words |

| | Module: Lobby |
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| | Severity: Important |
| | Classification: Functionality |
| Instructions | Share generated link with friends and make them join your private room. |
| Expected Result | While in room, other users should show up as they join Person joining the room should go to the waiting lobby of the specific game that was shared in the link. |

| Identification and Classification | Case 012: Nickname creation |
|-----------------------------------|--|
| | System: Tug of Words |
| | Module: Lobby |
| | Severity: Crucial |
| Instructions | Go to Tug of Words homepage Type in Nickname Hit play to join a public room or create a private room and continue process. |

| Expected Result | If Nickname was entered, that nickname will be in our database as a temporary user. |
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| Identification and Classification | Case 013: Teams of unequal size in a private room. System: Tug of Words Module: Lobby Severity: Crucial Classification: Functionality |
|-----------------------------------|---|
| Instructions | Join a private room (either by creating one or using a shared link) Choose Team 1 or Team 2 |
| Expected Result | When in a private room, a user has the option to choose whichever team they would like to be on. If user selects Team 1 they'll be placed into Team 1 If user selects Team 2 they'll be placed into Team 2 Therefore, the number of players do not have to be equal between the two teams. |

| Identification and Classification | Case 014: Game start after two people join a room |
|-----------------------------------|---|
| | System: Tug of Words |

| | Module: Lobby Severity: Important Classifications: Functionality |
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| Instructions | Create a room User 1 joins the room User 2 joins the room |
| Expected Result | When User 1 joins the room the game should not begin When User 2 joins the room the game should automatically begin |

| Identification and Classification | Case 015: Move the rope towards a winning team System: Tug of Words Module: Scoring Severity: Crucial Classifications: Functionality |
|-----------------------------------|--|
| Instructions | Create a room Start the game Team 1 types a word correctly while Team 2 remains idle |
| Expected Result | Assuming that the room creation and game initialization functions, after the game begins, the rope should move towards team 1's side. |

| Identification and Classification | Case 016: Move rope away due to mistakes |
|-----------------------------------|--|
| | System: Tug of Words |

| | Module: Scoring Severity: Important Classification: Functionality |
|-----------------|---|
| Instructions | Create a room Start the game Team 1 types a word incorrectly while Team 2 remains idle |
| Expected Result | Assuming that the room creation and game initialization functions, after the game begins, the rope should move away from team 1's side. |

| Identification and Classification | Case 017: Sufficiently randomized words during game play System: Tug of Words Module: Word Gen Severity: Important Classification: Functionality |
|-----------------------------------|--|
| Instructions | Start a gameCorrectly type a wordIncorrectly type a word |
| Expected Result | When the correct word is typed, a new random word should be generated When an incorrect word is typed, a new random word should be generated "Randomness" is achieved when: A single user does not receive the same word twice during a single game Words do not follow a strict alphabetical order. |

| Identification and Classification | Case 018: Hot bonuses for streaks in game System: Tug of Words Module: Scoring Severity: Work around Classification: Functionality |
|-----------------------------------|---|
| Instructions | Start a gameCorrectly type a wordRepeat above |
| Expected Result | After a minimum of 5 words is typed without error, a multiplier is added to the score each word contributes to the game A Visual symbol is displayed to make the user aware of the status of the streak As the streak of correct words grows larger, the multiplier grows as well After a certain streak, the bonus multiplier is capped and does not increase anymore |

| Identification and Classification | Case 019: Access via internet (deployment) |
|-----------------------------------|--|
| | System: Tug of Words |
| | Module: Deployment |
| | Severity: Important |
| | Classification: Functional |

| Instructions | Type the public url for Tug Of Words into your browser <enter></enter> |
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| Expected Result | The create/join game menu renders to the screen The user is able to interact with the application from this link |

| Identification and Classification | Case 020: Words displayed on enemy screen System: Tug of Words Module: In-Game Severity: Workaround Classification: Functionality Test |
|-----------------------------------|--|
| Instructions | Create or join a game Make sure someone is on the opposite team As they type words, watch the interface for words that they have typed correctly |
| Expected Result | As the opponent types correct words, they appear on my screen |

| Identification and Classification | Case 021: Boundary Test for Nickname Creation System: Tug of Words Module: Severity: Crucial Classification: Boundary Test |
|-----------------------------------|--|
| Instructions | Go to Tug of Words homepage Type in a really long Nickname Hit play to join a public room or create a private room and continue process. |
| Expected Result | If Nickname was entered, that nickname will be in our database as a temporary user. Shows that length of Nickname does not matter. |

| Identification and Classification | Case 022: Boundary Test for Nickname Creation - Special Characters System: Tug of Words Module: Lobby Severity: Crucial |
|-----------------------------------|--|
| | Classification: Boundary |
| Instructions | Go to Tug of Words homepage Type in a nickname with invalid characters Hit play to join a public room or create a private room and continue process. |

| Expected Result | If an invalid Nickname was entered, it must throw and error Ask for a the user to enter a valid nickname. |
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| Identification and Classification | Case 023: Boundary Test for Nickname Creation - No Name System: Tug of Words Module: Lobby Severity: Crucial |
|-----------------------------------|---|
| | Classification: Boundary |
| Instructions | Go to Tug of Words homepage No nickname Hit play to join a public room or create a private room and continue process. |
| Expected Result | If an invalid Nickname was entered, it must throw and error Ask for a the user to enter a valid nickname. |

| Identification and Classification | Case 024: Game start after two people join a room |
|-----------------------------------|---|
| | System: Tug of Words |

| | Module: Lobby |
|-----------------|---|
| | Severity: Important |
| | Classifications: Equivalence Class |
| Instructions | Equivalence Class: 0, 1, 2, 3 to infinity • Start a game • x number of users join the lobby, depending on the equivalence class. |
| Expected Result | Game should not begin if there are 0 or 1 user in the lobby Game should begin when 2 players join the room regardless of how many enter afterwards |

| Identification and Classification | Case 025: Teams of equal size in a public room. System: Tug of Words Module: Lobby Severity: Crucial Classification: Functionality |
|-----------------------------------|---|
| Instructions | Go to Tug of Words homepage Enter nickname Hit play Placed in team |
| Expected Result | If Team 1 had less people, user would get placed in Team 1 If Team 2 had lass people, user would get placed in Team 2 If the two teams are of equal size, user would get placed into a random team. |

| Identification and Classification | Case 026: Move the rope towards a winning team System: Tug of Words Module: Scoring Severity: Important Classifications: Boundary Value |
|-----------------------------------|--|
| Instructions | Create a room Start the game Team 1 types arbitrary large number of words correctly while Team 2 remains idle |
| Expected Result | Assuming that the room creation and game initialization functions, after the game begins, the rope should move towards team 1's side at a rapid pace, resulting in an almost instant team 1 victory. |

| Identification and Classification | Case 027: Move rope away due to mistakes |
|-----------------------------------|---|
| | System: Tug of Words |
| | Module: Scoring |
| | Severity: Important |
| | Classification: Boundary Value |
| Instructions | Create a room Start the game Team 1 types arbitrary large number of words incorrectly while Team 2 remains idle |
| Expected Result | Assuming that the room creation and game initialization functions, after the game begins, the rope should move away from team 1's side at a rapid |

| pace, resulting in an almost instant team 2 victory. |
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| Identification and Classification | Case 028: Sufficiently randomized words during game play System: Tug of Words Module: Word Gen Severity: Important Classification: Boundary Value |
|-----------------------------------|---|
| Instructions | Start a game Correctly type arbitrary large number of words Incorrectly type arbitrary large number of words |
| Expected Result | Every time a correct word is typed, a new random word should be generated Every time an incorrect word is typed, a new random word should be generated Each word generated after a correctly typed word should have similar distribution Each word generated after a incorrectly typed word should have similar distribution All generated words should have similar distribution |

| Identification and Classification | Test Case 029: Create a Private Room Boundary |
|-----------------------------------|---|
| | System: Tug of Words |
| | Module: Lobby |
| | Severity: Important |
| | Classification: Boundary Test |

| Instructions | Open the Tug Of Words home page Select "private room" Select "join game" Repeat many times, until there are many private rooms created |
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| Expected Result | All private game rooms should be created successfully The large number of private rooms should not cause any errors for any of the rooms |

| Identification and Classification | Test Case 030: Create a Private Room Equivalence Test System: Tug of Words Module: Lobby Severity: Important Classification: Equivalence Test |
|-----------------------------------|--|
| Instructions | Equivalence Classes: 0-10, 10-50, 50-infinity Open the Tug Of Words home page Select "private room" Select "join game" Repeat many times, until there are many private rooms created |

| Expected Result | All private game rooms should be created successfully The large number of private rooms should not cause any errors for any of the rooms or gameplay for any of the users |
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| Identification and Classification | Test Case 031: Joining a public game room Boundary Test System: Tug of Words Module: Lobby Severity: Important Classification: Boundary Test |
|-----------------------------------|--|
| Instructions | Open the Tug Of Words home page Select "join game" Repeat this process enough times to generate a large amount of public game rooms concurrently |
| Expected Result | All public game rooms should be created successfully The large number of public rooms should not cause any errors for any of the rooms or gameplay for any of the users |

| Identification and Classification | Test Case 032: Joining a public game room Equivalence Test |
|-----------------------------------|--|
| | System: Tug of Words |
| | Module: Lobby |

| | Severity: Important Classification: Equivalence Test |
|-----------------|--|
| Instructions | Open the Tug Of Words home page Select "join game" |
| Expected Result | Equivalence Classes: 0-10, 10-50, 50-infinity User should be entered into a random public game room User should see other random people join the room as they log on As public users join, they should be added to one of the two teams |

| Identification and Classification | Case 033: Team distribution in private rooms Boundary Test System: Tug of Words Module: Lobby Severity: Workaround Classification: Boundary Test |
|-----------------------------------|--|
| Instructions | Create a private room Add a large number of people to the private room via the generated URL |

| Expected Result | There should be a size limit of 20 for each team in a game room. This would mean that the total size of the game room is 40. Once there are 40 members in a game room, there should be exactly 20 people on each team. If any additional users try to join the game room, they will be redirected to a page that effectively says "Sorry, this lobby is full" If any team already has 20 people on it, new users should only be able to be added to the other team |
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| Identification and Classification | Case 034: Team distribution in public rooms Boundary Test System: Tug of Words Module: Lobby Severity: Workaround Classification: Boundary Test |
|-----------------------------------|--|
| Instructions | Create a private room Add a large number of people to the private room via the generated URL |
| Expected Result | There should be a size limit of 20 for each team in a game room. This would mean that the total size of the game room is 40. Once there are 40 members in a game room, there should be exactly 20 people on each team. If any additional users try to join the game room, they will be redirected to a page that effectively says "Sorry, this lobby is full" |

| Identification and Classification | Case 035: Gamer nicknames are unique at any given moment |
|-----------------------------------|---|
| | System: Tug of Words |
| | Module: Lobby |
| | Severity: Workaround |
| | Classification: Functional Test |
| Instructions | Attempt to join Tug Of Words with the same gamer nickname as somebody else |
| Expected Result | When entering the username the for the second time, the game should suggest that you select a different username. If the first user logs off/closes the Tug Of Words application, new users should be able to use that gamer nickname again. |