# Testing

This short document covers some simple tests that our game needs to be able to perform.

## Basic Tests

|  |  |  |
| --- | --- | --- |
| Test/Result | Expected | Actual |
| Launch game | Game displays splash page | No splash page |
| Player joins game | New player token generated | Player token generates |
| Player picks up star | Score increases | Score increases |
| Player Exits game | Player token is removed | Player token removed |
| Player opens game in multiple tabs | No new token generated | Extra token generated |
| Player selects nickname for chat | Players message display next to that nickname | Chat window unavailable |
| Player sends message in chat | Message appears for all users | Chat window unavailable |

## Test Plans

Test 1: User can join a game

The user must be able to join the game via its URL. They will see the splash page displayed, followed by entering the game. In game, other players will be displayed with a different sprite so that they can easily identify themselves.

Test 2: User can collect stars

The user must be able to move, using WASD. Any stars they touch should then be collected, adding to the teams overall score.

Test 3: User can chat

The User should be able to create a nickname, and any messages they send should be added to the live chat.

## Test Runs, Attempt 1:

### Test 1: User can join a game

**Date:** 24/11/2019

**Testers:** Ross Davidson, Ryan Anderson

**Test:** Join game

**Steps:** This test has 6 steps

1. Load webpage via URL: <https://quiet-stream-49978.herokuapp.com/>
2. Splash page is displayed
3. Player registers and selects game link
4. Game begins
5. Spaceship is generated for each player
6. Players can move and see other players moving

**Expected Results:** Players join, see splash screen and join the game, able to move around their spaceship and collect stars, with other players ships appearing as a different sprite.

**Actual Results:** Partial-Success. While players can join the game no problem, move and see other players, no splash screen is displayed, or registration enabled.

### Test 2: User can collect stars

**Date:** 24/11/2019

**Testers:** Ross Davidson, Ryan Anderson

**Test:** Collect stars

**Step:** This test has 3 steps

1. User moves ship to star
2. Users team score increases by 10
3. Star moves to new location

**Expected Results:** The star is collected, disappears for all players, then reappears at a new location.

**Actual Results:** Partial-Success. The star is collected and moves to a new location. However the star zips about the screen, seemingly collected several times, before reappearing elsewhere. Suspect server tick rate is the cause.

### Test 3: User can chat

**Date:** 24/11/2019

**Testers:** Ross Davidson, Ryan Anderson

**Test:** Chat

**Step:** This test has steps

1. User selects chat
2. User inputs username
3. User types message
4. Message is displayed to all users

**Expected Results:** Chat window appears, user sets nickname, types message, all users see message

**Actual Results:** Failed. No chat window appears.

## Test Runs, Attempt 2:

### Test 1: User can join a game

**Date:** 24/11/2019

**Testers:** Ross Davidson, Ryan Anderson

**Test:** Join game

**Steps:** This test has 5 steps

1. Load webpage via URL: <https://quiet-stream-49978.herokuapp.com/>
2. Splash page is displayed
3. Player registers and selects game link
4. Game begins
5. Spaceship is generated for each player
6. Players can move and see other players moving

**Expected Results:** Players join, see splash screen and join the game, able to move around their spaceship and collect stars, with other players ships appearing as a different sprite.

**Actual Results:** Partial-success. While landing pages have been added, the direct link to the game bypasses them and the requirement to log in. If you go through the website itself, you cannot reach the game itself without registering.

### Test 2: User can collect stars

**Date:** 24/11/2019

**Testers:** Ross Davidson, Ryan Anderson

**Test:** Collect stars

**Step:** This test has 3 steps

1. User moves ship to star
2. Users team score increases by 10
3. Star moves to new location

**Expected Results:** The star is collected, disappears for all players, then reappears at a new location.

**Actual Results:** Partial-Success. The star is collected and moves to a new location. However the star zips about the screen, seemingly collected several times, before reappearing elsewhere. Suspect server tick rate is the cause. Furthermore, the win condition (reach 1000 points) results in repeated dialog boxes for every 10 points above 1000 that the ship has, and does not reset the scores when complete.

### Test 3: User can chat

**Date:** 24/11/2019

**Testers:** Ross Davidson, Ryan Anderson

**Test:** Chat

**Step:** This test has 4 steps

1. User selects chat
2. User inputs username
3. User types message
4. Message is displayed to all users

**Expected Results:** Chat window appears, user sets nickname, types message, all users see message

**Actual Results:** Failed. No chat window appears.