

aMAZEingGames Milestone 5 Project Testing:

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aMAZEingGames

User Acceptance Plans:

Game Testing - Games are being tested Jasmine.js to test bugs involving game mechanics via automated testing. We play test each of the games multiple times each using different strategies to break the program. Including hitting random keys, replaying instead of submitting, leaving the game running rather than playing to completion etc.

Webpage Testing - We test the webpage in a very similar way, mostly by making sure all of the hyperlinks go to their desired destination. Mostly using play testing from each of us to try to find bugs/break the website. Testing the resizing of the web page to see if everything is still in their proper position.

Login Testing - The login system has built in tests already as being part of a .js prebuilt function. This includes requiring valid characters only, requesting uppercase/special characters in a password ect. Also making sure that the username already exists before creating the new login. Each password is also hashed with mp5 in order for us to not know our user's passwords. There shouldn't be additional testing needed for this aspect of our software as the testing has been built in through restrictions.

Automated Tests - Jasmine.js provides a framework for Spec files. There are three describe functions which have "it" statements describing how "it" should work. There are expect statements inside the it statements which expect a certain result. Screenshots are below. We call certain functions inside the it statements and set up an expect statement checking for a specific change to the snake object.

UAT - Trying to break the games through obscure movements/ inputs. Break the webpage through clicking hyperlinks in an orthodox order to see if there are any failures. Registration testing, using unique characters to try and gain access to the login system. Try mysql

commands in the registration fields. Sending our code to friends not in our group gives an unbiased testing from someone who will just try to play the game not knowing how the code works.

SnakeSpec.js — C:\Users\justi\Desktop\jasmine-standalone-3.1.0 — Atom

File Edit View Selection Find Packages Help

Project

SpecRunner.html SpecHelper.js sketch.js snake.js Snake

jasmine-standalone-3.1.0

lib

spec

src

p5.dom.min.js

p5.min.js

p5.play.js

p5.sound.min.js

sketch.js

snake.js

MIT.LICENSE

SpecRunner.html

```
1 describe('Wall interaction', function() {
2   var snake;
3
4   beforeEach(function(){
5     snake = new Snake();
6     setup();
7
8   });
9   afterEach(function(){
10    snake = null;
11  });
12
13  it('Should move upwards when hitting left wall', function(){
14    snake.x = 0;
15    snake.xspeed = -1;
16    snake.checkWall();
17    expect(snake.yspeed).toBe(-1);
18    expect(snake.xspeed).toBe(0);
19  });
20
21  it('Should move downwards when hitting right wall', function(){
22    snake.x = width-sizeScale;
23    snake.xspeed = 1;
24    snake.checkWall();
25    expect(snake.yspeed).toBe(1);
26    expect(snake.xspeed).toBe(0);
27  });
28
29  it('Should move to the right when hitting top wall', function(){
30    snake.y = 0;
31    snake.yspeed = -1;
32    snake.checkWall();
33    expect(snake.yspeed).toBe(0);
34    expect(snake.xspeed).toBe(1);
35  });
36
37  it('Should move to the left when hitting bottom wall', function(){
38    snake.y = height-sizeScale;
39    snake.yspeed = 1;
40    snake.checkWall();
```

5 specs, 0 failures, randomized with seed 80993

Wall interaction

- Should move to the right when hitting top wall
- Should move upwards when hitting left wall
- Should move to the left when hitting bottom wall
- Should move downwards when hitting right wall

Food

- Food should not be null