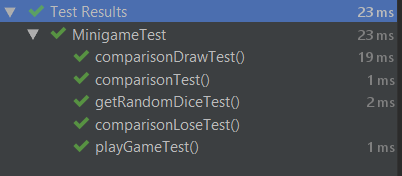
**White Box Testing:**

The first tests are the requirements we fulfilled, while the last three marked B are to do with fixing requirement failures and bugs they had previously.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Test No. | Req. Ref. | Description | Method | Predicted Result | Actual Result | Pass? |
| 1 | F2.1,F2.2 | Can the player get to a Victory screen with points displayed once the final boss is defeated? | Play through the game, beating the final boss | A victory screen appears with the number of points obtained on it | As predicted | Yes |
| 2 | F3.2 | Can the player encounter an enemy in the form of a monster? | Play through the game until a monster is encountered or until half an hour expires | An encounter with a monster enemy will occur | As predicted | Yes |
| 3 | F3.3 | Can you encounter bad weather and obstacles within the game? | Play through the game moving into the stormy region and look around the map for rocks as obstacles | Rocks as obstacles will be on the map (that cannot be moved through) and there will be patches of bad weather that if moved through reduce health | As predicted | Yes |
| 4 | F4.4 | Can you encounter land bound enemies in the game? | Play through the game until a boss (bosses are forts which are land-bound) | The boss encountered is a land-bound fort | As predicted | Yes |
| 5 | F5.1 | Are there all 5 colleges and 3 departments within the game? | Visit every island in the game and note down what their names to see whether 5 colleges and 3 departments have been included | There should be 5 colleges and 3 departments noted down | As predicted | Yes |
| 6 | F6.3 | Do you get increased point gain in bad weather? | Move player into stormy region, and check point gain compared to outside the stormy region | The point gain within the stormy doubles, so you get twice as many points as outside | As predicted | Yes |
| 7 | F6.2 | Is there a fixed point gain per amount of time passed? | Play the game 3 times for exactly 1 minute, taking no action each time and noting down the points after the time elapses | The number of points should be identical for each 3 playthroughs |  |  |
| 8 | F6.4 | Is there a point multiplier that increases with game length? | Play the game for 10 minutes and check that the game point total starts to increment by 2 instead of 1 in that time | The game starts incrementing point totals above 1 within 10 minutes | As predicted | Yes |
| 9 | F7.2 | Do you get more gold fighting stronger enemies than weaker enemies? | Fight a normal ship and then a boss and compare the amount of gold gained from each | Normal encounters will give 35 gold and the boss fights will give 100 gold | As predicted | Yes |
| 10 | F8.4 | Do you get large amounts of points from defeat of a college? | Fight a normal ship and then a boss and compare the amount of points gained from each | Normal encounters give 30 points while boss fights give 100 points once you beat them | As predicted | Yes |
| 11 | F10.1, F10.2 | Can the final boss be defeated at the beginning of the game without upgrades? | Fight the final boss without upgrades, and then again with many upgrades much later in the game | The final boss will not be defeated on the first try, but later on in the game it will be | As predicted | Yes |
| 12 | F11.2 | Can you spend gold on healing? | Go to Derwent (friendly college) once damaged and check whether health has gone back up to max | The ship will be fully healed at full health | As predicted | Yes |
| 13 | F12, F12.1 | Is there a random minigame that involves betting with the player’s current gold? | Go to Derwent (friendly college) with some gold and play the minigame, checking that it involves betting with the player’s gold | When playing the minigame, there is a random chance to gain or lose gold | As predicted | Yes |
| B1 | F11 | Is the price displayed for healing correct? | Go to Derwent (friendly college) once damaged and note gold cost vs. healing | Healing is 1 gold coin per 5 health healed (rounded up) | As predicted | Yes |
| B2 | F11 | Is the price displayed for upgrades correct? | Go to a department and note down the cost for an upgrade | The upgrade should cost 15 gold | As predicted | Yes |
| B3 | N/A | Can you click on buttons that were only on previous screens? | Go to a department, memorise where the upgrade button is then exit the department and click in the same spot the button was | There should be no effect from the button in the previous screen | As predicted | Yes |

**Unit Testing:**

|  |  |  |
| --- | --- | --- |
| Name | Description | Pass/Fail |
| comparisonTest | A test to see whether you will win if you get a better score than your opponent (compares scores) | Pass |
| comparisonDrawTest | A test to see whether you will draw if you get the same score as your opponent (compares scores) | Pass |
| comparisonLoseTest | A test to see whether you will lose if you get the same score as your opponent (compares scores) | Pass |
| getRandomDiceTest | Check that when random dice are created, they are within the correct bounds | Pass |
| playGameTest | Check to see that you either Win, Lose or keep playing when the minigame is played | Pass |



MinigameTest.java for the JUnit tests shown above can be found here: [MGTest.java](https://github.com/7SeasOfSomething/All-Hands-On-Deck/blob/master/docs/assessments3/minigametest.java?fbclid=IwAR3aDpJzaLxfHu-TBIKSt5WMmIklccsvn4xbRl8sayDK_Q1UYVjPICZ71f0)