

## M4 Test Write-Up

### restartGame

- This test ensures that when the game over screen is displayed and the player clicks on the restart game button, then the player will be taken back to the welcome screen.
- If a player chooses to restart the game, then they should be taken to the welcome screen rather than closing the window.

### exitGame

- This test ensures that when the game over screen is displayed and the player clicks on the exit button, then the window will close.
- If a player chooses to exit the game, then the game/window should close rather than taking the player to the welcome screen or any screen.

### gameCombatButtonExists

- This test checks if the game button appears on the initial game screen and if it is able to be clicked.
- After the player reaches the game screen after choosing difficulty, the play button should be visible..

### enemiesAppearOnClickCombatButton

- This test verifies if enemies begin to appear on screen once the combat button is clicked. Enemies are a very crucial aspect of the game, and this test makes sure that they actually render.
- The test will wait for 20 seconds until the enemies appear on the screen.

### healthDepletes

- Checks if health is decremented when an enemy reaches the end of the screen. This test is important because having health decrement is an important condition to reach the game over screen.
- The test will wait for 40 seconds until the enemies reach the monument and check if the new health is less than the original health.

### gameOverScreen

- This test checks that the game over screen renders when the health reaches 0.
- When health is zero or below then the screen should show the game over screen.

### noEnemiesAtStart

- Test ensures no enemies are on the path when the initial game screen loads.
- Only when the combat start button is pressed should enemies start appearing.

### noTowersGameOver

- Towers cannot be placed when game is over
- When the game is over, the player should only be able to restart or exit and not do anything other than that.

### noCombatButtonAvailableOnRoundStart

- Combat button cannot be clicked again once round is already started
- The player should not be able to click on the combat button while the round is still happening.

### enemyDisappearsOnMonumentReached

- Enemy should disappear when the enemy reaches the monument
- The number of asteroids should decrease as enemies reach the monument.