Test Case One:

Click on start button

Result:

Game begins, enemy units start spawning

Test Case Two:

Click on start button, click unit one

Result:

Game begins, unit one spawns

Test Case Three:

Click on start button, click unit two

Result:

Game begins, unit two spawns

Test Case Four:

Click on start button, click unit three

Result:

Game begins, unit three spawns

Test Case Five:

Click on start button, then click on each available unit and wait for them to collide

Result:

Game begins, all units come out in the order they were clicked and after colliding, the units randomly win and disappear.

Test Case Six:

Click on start button, click on each Turret

Result:

Game begins, all turrets appear in the order they were clicked as long as money is available

Test Case Seven:

Click on start button, spend all money, click on a unit with insufficient funds.

Result:

Game begins, units clicked appear, after a unit is clicked without enough money, units don’t spawn.

Test Case Eight:

Click on start button, keep playing until an AI unit hits users base.

Result:

Game begins, enemy unit reaches base, becomes invisible, and user’s base health is decreased.

Test Case Nine:

Click on start button, keep playing until a friendly unit hits the AI’s base.

Result:

Game begins, users unit reaches base, becomes invisible, and enemy’s base health is decreased.

Test Case Ten:

Click on start button, keep playing until a friendly base health reaches 0.

Result:

Game begins, as enemy units hit friendly base, friendly base health decreases and eventually reaches 0. The game ends, the users name is asked for and the option to play again or quit is given.

Test Case Eleven:

Click on start button, keep playing until enemy base health reaches 0.

Result:

Game begins, as friendly units hit enemy base, enemy base health decreases and eventually reaches 0. The game ends, the users name is asked for and the option to play again or quit is given.

Test Case Twelve:

Click on start button, keep playing until enemy base health reaches 0, press play again.

Result:

Game begins, as friendly units hit enemy base, enemy base health decreases and eventually reaches 0. The game ends, the users name is asked for and the option to play again or quit is given. When the button is hit, the game starts again.

Test Case Thirteen:

Click on start button, keep playing until friendly base health reaches 0, press play again.

Result:

Game begins, as friendly units hit enemy base, enemy base health decreases and eventually reaches 0. The game ends, the users name is asked for and the option to play again or quit is given. When the button is hit, the game starts again.

Test Case Fourteen:

Click on start button, keep playing until friendly base health reaches 0, press quit.

Result:

Game begins, as friendly units hit enemy base, enemy base health decreases and eventually reaches 0. The game ends, the users name is asked for and the option to play again or quit is given. When the button is hit, the game quits.

Test Case Fifteen:

Click on start button, keep playing until enemy base health reaches 0, press quit.

Result:

Game begins, as friendly units hit enemy base, enemy base health decreases and eventually reaches 0. The game ends, the users name is asked for and the option to play again or quit is given. When the button is hit, the game quits, game over screen appears.

Test Case Sixteen:

Click on start button, play multiple units at once (testing timer delay)

Result:

Game begins, units come out per delay times.

Test Case Seventeen:

Click on start button, play multiple units at once (testing timer delay)

Result:

Game begins, units come out per delay times.

Test Case Eighteen:

Click on start button, use unit one only (test randomization)

Result:

Game begins, randomizer for unit one appears to work (there’s no way to be 100% sure)

Test Case Nineteen:

Click on start button, use unit Two only (test randomization)

Result:

Game begins, randomizer for unit Two appears to work (there’s no way to be 100% sure)

Test Case Twenty:

Click on start button, use unit Three only (test randomization)

Result:

Game begins, randomizer for unit Three appears to work (there’s no way to be 100% sure)

Test Case Twenty-One:

Click on start button, purchase a variety of units and turrets (test money)

Result:

Game begins, money is lost as meant to be.

Test Case Twenty-Two:

(testing mouse listener) On the main screen, click random locations, then click start, then during the game click in random locations where there isn’t a button.

Result:

Random clicks do nothing, game begins when start is clicked, during game, random clicks again do nothing.

Test Case Twenty-Three:

Begin and end game, submit a score.

Result:

Game properly runs, score successfully submits

Test Case Twenty-Four:

Begin game, play through the game once, click play again, play through the game again, then press quit.

Result:

Game runs fine, once play again is clicked, the game restarts and works the same way. Once quit is pressed, the game quits, showing the game over screen.

Test Case Twenty-Five:

Begin game, play through the game once, submit a name, check the file

Result:

Game runs fine, once a name is entered, the appropriate information is written and saved in the file, and can be viewed.

Deviations:

The final copy of the game retained most of what was in the design document. Some aspects that were removed for various reasons. One major removal was the use of sub menus. Seeing as this would be time consuming to the user, one menu was made that contained all items that the sub menus would. The overall design of the game was changed as there was disagreement about the images that were used in the design document. This meant that the units themselves were also changed. Prices for units and turrets were changed for balancing purposes.

In the code, many classes from the design document were scrapped due to lack of use. The “Projectile” class along with it’s “Heavy” and “Light” variations were scrapped. The light variation was meant for units that would shoot projectiles, but that idea was scrapped. The heavy variation was replaced by the “turret Shooter” class. The basic “Troop” class and all the “Turret” classes were removed due to lack of efficiency. The AI and Player Base classes were also removed as they served no purpose in the final version. Classes were added for all AI troops as they all required a different picture from those used for the user’s troops.