

Surface-To-Air Saviors: Tower Defense

Agile Tracking Sheet

Milan Haruyama

03 May 2021

CS 225, Spring 2021

Embry-Riddle Aeronautical University

Daytona Beach campus

1 Aerospace Boulevard

Daytona Beach, FL 32114

Table 1: User Story Summary

| User Story ID | User Story | Completeness Criteria | Effort Estimate (hours) | Priority | Worked in Sprint (Estimated) |
|---------------|--|--|-------------------------|----------|------------------------------|
| 1. | As a developer, I want to be able to test my software. | All classes shall exist with defined attributes and methods (in dummy form). | 6 | 1. | 1 |
| 2. | As a developer, I want to set ground level to be at or above Y = 0. | The game shall define ground level to be at or above Y = 0. | 1 | 2. | 1 |
| 3. | As a developer, I want to set ground level to be at or below Y = 60. | The game shall define ground level to be at or below Y = 60. | 1 | 3. | 1 |
| 4. | As a developer, I want to set the sky to be above Y = 60. | The game shall define the sky to be above Y = 60. | 1 | 4. | 1 |
| 5. | As a developer, I want the GUI to display the Missile Silos. | The GUI shall display the Missile Silos, which are three grey rectangles. | 1 | 5. | 1 |
| 6. | As a developer, I want the GUI to display the Barracks. | The GUI shall display the Missile Silos, which are four brown rectangles. | 1 | 6. | 1 |
| 7. | As a developer, I want to be able to set the cursor to a crosshair. | The game shall set the cursor to a crosshair. | 1 | 7. | 1 |
| 8. | As a developer, I want the game to have a splash screen that displays instructions. | The game shall have a splash screen that displays instructions. | 1 | 8. | 2 |
| 9. | As a developer, I want the game to have keyboard controls. | The game shall have keyboard controls. | 1 | 9. | 2 |
| 10. | As a developer, I want to be able to move the crosshair around the screen. | The game shall allow the crosshair to be moved around the screen. | 1 | 10. | 2 |
| 11. | As a developer, I want the leftmost Missile Silo to be controlled via the "1" key. | The leftmost Missile Silo shall be controlled via the "1" key". | 1 | 11. | 2 |
| 12. | As a developer, I want the middlemost Missile Silo to be controlled via the "2" key. | The middlemost Missile Silo shall be controlled via the "2" key". | 1 | 12. | 2 |
| 13. | As a developer, I want the rightmost Missile Silo to be controlled via the "3" key. | The rightmost Missile Silo shall be controlled via the "3" key". | 1 | 13. | 2 |

| | | | | | |
|-----|---|---|---|-----|---|
| 14. | As a developer, I want the leftmost Missile Silo to aim where the Player's crosshair is pointing. | The leftmost Missile Silo shall aim where the Player's crosshair is pointing. | 2 | 14. | 3 |
| 15. | As a developer, I want the leftmost Missile Silo to aim where the Player's crosshair is pointing. | The leftmost Missile Silo shall aim where the Player's crosshair is pointing. | 2 | 15. | 3 |
| 16. | As a developer, I want the middlemost Missile Silo to aim where the Player's crosshair is pointing. | The middlemost Missile Silo shall aim where the Player's crosshair is pointing. | 2 | 16. | 3 |
| 17. | As a developer, I want the rightmost Missile Silo to aim where the Player's crosshair is pointing. | The rightmost Missile Silo shall aim where the Player's crosshair is pointing. | 2 | 17. | 3 |
| 18. | As a developer, I want Missile Silos to have a 0.25 second cooldown after firing. | Missile Silos shall have a half second cooldown after shooting a missile. | 2 | 18. | 3 |
| 19. | As a developer, I want P-Missiles to travel at a speed of 2400 pixels per second. | P-Missiles shall travel at a speed of 640 pixels per second. | 1 | 19. | 3 |
| 20. | As a developer, I want P-Missiles to explode when they reach the coordinates of the Player's crosshair at the time of being launched. | P-Missiles shall explode when they reach the coordinates of the Player's crosshair at the time of being launched. | 1 | 20. | 3 |
| 21. | As a developer, I want 10 Missiles to rain from the sky at time = 0. | 10 Missiles shall rain from the sky at time = 0. | 1 | 21. | 3 |
| 22. | As a developer, I want 20 missiles to rain from the sky at time = 10. | 20 Missiles shall rain from the sky at time = 10. | 1 | 22. | 4 |
| 23. | As developer, I want 20 missiles to rain every 10 seconds past time = 10. | 20 Missiles shall rain from the sky every 10 seconds past time = 10. | 2 | 23. | 4 |
| 24. | As a developer, I want the sprites to have collision detection. | The sprites shall have collision detection. | 2 | 24. | 4 |
| 25. | As a developer, I want the game to record the Player's XP. | The game shall record the Player's XP. | 2 | 25. | 4 |
| 26. | As a developer, I want the game to prompt the Player when the game is over. | The game shall prompt the user when the game is over. | 1 | 26. | 4 |

Table 2: Sprint Work Summary

| Sprint | Backlog | In Work This Sprint | Completed This Sprint |
|---------------|----------------|--------------------------------|----------------------------------|
| 1 | 1-26 | 1-7 | 1-7 |
| 2 | 7 - 26 | 7 - 13 | 7 - 13 |
| 3 | 14 - 26 | 14 – 21 | 14 - 21 |
| 4 | 21-26 | 21-26 | 21-26 |

Table 3: Remaining Effort Estimate (Burn Down Chart)

| | Start | 8 Mar | 15 Mar | 26 Mar | 5 Apr | 19 Apr | 26 Apr | 3 May |
|---------|--------------|--------------|---------------|---------------|--------------|---------------|---------------|--------------|
| Planned | 0 | 0 | 0 | 12 | 8 | 8 | 6 | 0 |
| Actual | 0 | 0 | 0 | 10 | 14 | 12 | 10 | 5 |

