# Software Assessment 3 – Space Game

## Year 12 – 2020

## NESA: 32523064

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# Design Specifications

The design will include:

* Flying Spaceship
* Enemies
* Stars in the background
* Asteroids

# Log book

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Date /Time** | **Description of progress** | **Tasks achieved** | **Issues- stumbling blocks** | **References** |
| 10/6/20 | Added 400 stars to make the background look like its scrolling | Added Stars | Making the stars properly teleport back to the top |  |
| 12/6/20 | Added 3 asteroids which will be obstacles for the ship | Added asteroids | So far, they don’t hit the spaceship |  |
| 14/6/20 | Added working ship boundaries | Ship boundaries | Getting the boundary to work correctly next with the spaceship |  |
| 28/6/20 | The stars will spawn in with variable sizes making the background more realistic | More realistic stars |  |  |
| 28/6/20 | Using a tween engine called tween nano | Adds cool animation when the ship appears on the screen | Had to download the tween engine code and add it inside the root folder of the .fla file |  |
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| **Date /Time** | **Description of progress** | **Tasks achieved** | **Issues- stumbling blocks** | **References** |
| 29/6/20 | Putting the stars and asteroids in an array that will allow me to setup collisions with the asteroids | Created arrays instead of spawning the same child individually, encapsulates the two groups so that my collision detecting isn’t stupid. | I have 3 separate variable names that are very similar and it makes the code a bit confusing. |  |
| 30/6/20 | Added collision detecting with the spaceship and asteroids.  The whole game is coming together and is looking decent now. | Spaceship collides with asteroids. | Took a very long time to make the collisions work properly. In the process I broke my boundaries but later found that I had commented out the initialiser in the OnAdd function. |  |
| 1/6/20 | Attempted to make the asteroids spawn more random. |  | My asteroids spawn in a very similar pattern despite using a math.random to determine their starting and reset points. |  |
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# Gantt chart

# Context Diagram

# Data Dictionary

|  |  |  |
| --- | --- | --- |
| **Data item (variables)** | **Data Types ( sort data types together)** | **Description (of what the variable does)** |
| rightPressed | Boolean | Changes between true/false depending on if the user is pressing the right arrow down |
| leftPressed | Boolean | Changes between true/false depending on if the user is pressing the left arrow down |
| upPressed | Boolean | Changes between true/false depending on if the user is pressing the up arrow down |
| downPressed | Boolean | Changes between true/false depending on if the user is pressing the down arrow down |
| speed | integer | Sets the speed for the spaceship, also manipulated by the boundary testing to stop the spaceship moving off the screen. |
| direction | String | Posts the ships direction, used by boundary testing to allow the ship to move if it travels in a direction other than the wall it just hit. |
| hitObj | boolean | Used by collision testing to determine if the ship has hit an asteroid |
| d | Integer | Used to count the number of asteroids in the game inside the collision test function |
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# Storyboard

# Test Report

# Evaluation of solution

# Maintenance Projection