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| Course  Title | | **Advanced Diploma in Multimedia Software Development** | | | **Lecturer Name & Surname** | **Neil Aquilina** | | |
| Unit Number & Title | | | Programming for Computer Games | | | | | |
| Assignment Number, Title / Type | | | Simple 2D Car Game - Home | | | | | |
| Date Set | | | 01/12/2020 | Deadline Date | 07/01/2021 | | | |
| Student Name | Kyle Tabone | | | ID Number | **239103L** | | Class / Group | **4.2A** |

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| x | Student’s declaration prior to handing-in of assignment:  ❖ I certify that the work submitted for this assignment is my own and that I have read and understood the  respective Plagiarism Policy | | | |
|  | Student’s declaration on assessment special arrangements (Tick only if applicable)  ❖ I certify that adequate support was given to me during the assignment through the Institute and/or the  Inclusive Education Unit.  ❖ I declare that I refused the special support offered by the Institute. | | | |
| Student Signature: | |  | Date : | 19/01/2021 |

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| Assessment Criteria | Maximum Mark |
| *KU2: Describe asset types* | 5 |
| *KU5: Identify suitable resolution for images of various types* | 5 |
| *KU6: Select asset types and settings for a range of media assets for a game design* | 5 |
| *KU7: Idenitfy resolution issues for the development platforms* | 5 |
| *KU8: Identify appropriate input devices and methods for development platforms* | 5 |
| *KU9: Show and explain how to deploy a game to multiple devices* | 5 |
| *AA1: Examine and apply basic programming techniques for a simple game* | 7 |
| *AA2: Develop a game with graphical and audio assets* | 7 |
| *AA3: Demonstrate ability to resolve issues and input devices in the development*  *environment* | 7 |
| *AA4: Apply coroutines for a more interesting gameplay* | 7 |
| *AA5: Examine and solve gameplay problems* | 7 |
| *SE2: Resolve programming issues related to sound, graphics and gameplay* | 10 |
| Total Mark | 75 |

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| **Assessor’s feedback to student** |
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| ***(If necessary, use reverse side of page for IV feedback on assignment brief / sample of assessment decisions)*** |

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| **Name & Surname** | **Signature** | **Date** |
| **Internal Verifier** **:** Approval of *assignment*  *brief* |  | For approval signature, please  refer to electronic audit trail |  |
| **Lecturer / Assessor :** Issue of results and  feedback to student |  | For approval signature, please  refer to electronic audit trail |  |
| **Internal Verifier :** Approval of *assessment*  *decisions* (Sample) |  | For approval signature, please  refer to electronic audit trail |  |
| **Learner’s signature upon collection of corrected assignment.** | |  |  |

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| Assessment Criteria |
| *KU2: Describe asset types* |
| *KU5: Identify suitable resolution for images of various types* |
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| *AA1: Examine and apply basic programming techniques for a simple game* |
| *AA2: Develop a game with graphical and audio assets* |
| *AA3: Demonstrate ability to resolve issues and input devices in the development*  *environment* |
| *AA4: Apply coroutines for a more interesting gameplay* |
| *AA5: Examine and solve gameplay problems* |
| *SE2: Resolve programming issues related to sound, graphics and gameplay* |

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| Test Case 1 |  |
| Line Error | (4) public class DamageDealer : MonoBehaviour |
| Error Explanation | It can’t recognize “MonoBehaviour” |
| Error Correction | Adding “using UnityEngine” since “MonoBehaviour” is part of Unity |
| Error Correction ScreenShot |  |

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| Test Case 2 |  |
| Line Error | *(10)*  public int GetDamage() |
| Error Explanation | Some value needs to be returned |
| Error Correction | Returning the value |
| Error Correction ScreenShot |  |

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| Test Case 3 |  |
| Line Error | (7) [SerializeField] public List<Transform> waypoints = new List<Transform>(); |
| Error Explanation | The list isn’t recognised |
| Error Correction | Adding “using System.Collections.Generic” |
| Error Correction ScreenShot |  |

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| Test Case 4 |  |
| Line Error | (21) offset = new Vector2(0f, backgroundScrollSpeed); |
| Error Explanation | “offset” is not found and therefore the movement of the background couldn’t be done |
| Error Correction | Adding the movement called “offset” |
| Error Correction ScreenShot |  |

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| Test Case 5 |  |
| Line Error | (12) return damage; |
| Error Explanation | It is returning what isn’t found (“damage” in this case) |
| Error Correction | Adding the float “damage” |
| Error Correction ScreenShot |  |

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| Test Case 6 |  |
| Line Error | (8) Text scoreText; |
| Error Explanation | The text can’t show in the game |
| Error Correction | Adding “using UnityEngine.UI” |
| Error Correction ScreenShot |  |

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| Test Case 7 |  |
| Line Error | (22) scoreText.text = gameSession.GetScore(); |
| Error Explanation | The score is an integer not a string, and in order for the text to show, it needs to be a string |
| Error Correction | Adding the function “.ToString()” to turn the integer into a string |
| Error Correction ScreenShot |  |

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| Test Case 8 |  |
| Line Error | (41) waveWaypoints.Add(); |
| Error Explanation | The pathPrefabs in the list are not letting the “children” (the waypoints) to be added to the list waypoints |
| Error Correction | Adding the word “child” between the brackets |
| Error Correction ScreenShot |  |

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| Test Case 9 |  |
| Line Error | (41) SceneManager.LoadScene("GameWin"); |
| Error Explanation | You can’t go to scenes without its management systems |
| Error Correction | Adding “using UnityEngine.SceneManagement” |
| Error Correction ScreenShot |  |

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| Test Case 10 |  |
| Line Error | (28) myMaterial += offset \* Time.deltaTime; |
| Error Explanation | The main texture of the material is not moving because it’s not being called |
| Error Correction | Adding “.mainTextureOffset” to “myMaterial” |
| Error Correction ScreenShot |  |

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| Test Case 11 |  |
| Line Error | (56) foreach (WaveConfig currentWave in waveConfigList) |
| Error Explanation | The waves won’t spawn and loop because “waveConfigList” isn’t there |
| Error Correction | Having waveConfigList as a list of waves |
| Error Correction ScreenShot |  |

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| Test Case 12 |  |
| Line Error | (41) waveToSpawn.GetWaypoints()[startingWave].transform.position |
| Error Explanation | The startingWave doesn’t have a variable |
| Error Correction | Making startingWave 0 since we always start from 0 |
| Error Correction ScreenShot |  |

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| Test Case 13 |  |
| Line Error | (22) yield return StartCoroutine() |
| Error Explanation | The coroutine needs a function in between the brackets in order to work |
| Error Correction | Adding a function that spawns all waves |
| Error Correction ScreenShot |  |

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| Test Case 14 |  |
| Line Error | (38) foreach (Transform child in pathPrefab) |
| Error Explanation | The pathPrefab is trying to transform its waypoints, but it can’t. |
| Error Correction | Adding “.transform” |
| Error Correction ScreenShot |  |