GAM160

Session 03 – Workshop Tasks

Workshop 1

- Create an Enemy class which extends MonoBehaviour. Include a virtual Attack() method which method scales the object by 1.5.
- Create Orc and Dragon classes which inherit from Enemy, these classes should override the Attack() method.
  - The Orc class's Attack() method should turn the gameObject red.
    Hint: gameObject.GetComponent<Renderer>().material.color = Color.red;
  - The Dragon class's Attack() method should output "flames" to the console.
- Place three cubes in the scene and assign your Enemy script to one, Orc to another, and Dragon to the third.
- Create an EnemyManager script and attach it to an empty GameObject. This script must have a public Enemy[] array, and when [Space] is pressed it calls the Attack() method on each Enemy in the array.
- In Unity drag the three cubes into the array on the script attached to the camera.

Workshop 2

- In the workshop you will create three different enemy types for a hypothetical SHMUP game.
- Create a BaseEnemy class, this will declare variables for health, speed, and scoreValue; along with OnCollisionEnter() which handles collision with a player and Update() which moves the GameObject in a given direction and speed.
- Also declare a virtual method as follows:

  protected virtual Vector3 GetDirection()

  ... in the parent class this will simply return transform.forward.
- Create a series of child classes which inherit from BaseEnemy. Override GetDirection() with the following behaviours:
  - Heat seeking (move towards player)
    - stretch goal modify velocity: 90% existing, 10% towards player
  - ‘Wave’ pattern (apply a horizontal offset to the movement based on a sin wave over time)