**Waypoint Project**

**Demonstration of my project:**

What is this project about?

It’s a simple pathfinding waypoint node based AI movement. The nodes in this specific project are just 3D cubes that are attached to the object that has the waypoint script on it. Currently there are 2 objects that act as an AI; a zombie and a sphere

Mechanics:

* There is 1 script called ‘Waypoint’ which is main part of the project as it controls AI movement from node to node.
* NavMesh (Navigation mesh), this outlines path and spaces where the AI agent can navigate around. This is a standard Unity feature.
* Uses NavMeshAgent which allows the AI to navigate through the scene based on where NavMesh allows it to.
* A simple array which stores the nodes (3D cubes), as many as the user desires to use.

Cosmetics:

* One of the AI agents is a built in Sphere with a free material attached to it obtained from the Unity asset store.
* The other agent is a zombie that was also obtained from the asset store for free. The zombie should also be making zombie like noises and movement.
* The terrain I started as a raw piece that Unity has built in, but then later I downloaded and a free terrain pack from the asset store and designed a low quality map.
* The pool/round lake was built using the free terrain pack but the animating water was separate from the asset store.
* The tree also came free from the asset store

What does this project perform?

There are 2 different AI, they could be placed anywhere on the map within the NavMesh area space. There are also four objects that could be placed anywhere and act as waypoints for the AI’s to navigate to. There is a script attached to the AI’s which allow it navigate to the waypoints as long as they have been added to the array in order. If the user decides to add more waypoints then there will need to be more objects in the scene that can be used as a waypoint, once there is an object created it needs to be added to the array by simply dragging that object instance into the element option after choosing the size (size = how many waypoints). There could also be more AI by simply adding any object and attaching the appropriate components such as the script and collider.

How does this project relate to AI?

What techniques were used?

Problems/issues:

How to use it?

References: