**Assignment 2**

**Game Programming 2**

**COMP 396**

**(Individual Work)**

The goal of this assignment is to improve Assignment 1, i.e., the maze game.

**NaveMesh Environment**

Our maze now has walkable areas included, but not limited to, gaps, valleys, uphill, downhill, and stairs with different costs. You should use NavMesh properly to bake navigable areas for your agents. Make some interesting off mesh links to be used by NavMesh agents. You need to setup some NavMeshObstacle in your maze.

**NavMesh** **Agents (enemies)**

Define 3 different NavMesh agents with different settings (abilities) which can go through or avoid above walkable areas. Like Assignment 1, enemies (now contain the NavMesh Agent property) have predefined states. Thus while they can see the player but also may avoid to chase directly but they try to find the best path to the player.

**Requirements**

1. All defined environments by NavMesh should be navigable at least by one agent. To make your project understandable use proper tagging and names. Also document your environments and agents in a text file README.txt in the route of your project.
2. Agents should have vision(Perspective): The cone of vision
3. Agent heads can rotate if they need to check their surroundings.
4. Agents can detect multiple object with different sensitivities (touch sense): Player and doors.
5. If agents encounter doors, they can open doors. Change the FSM of agents such that while passing through doors they check left and right, i.e., cautious passing.

**Marking scheme**

1. A maze contains all defined environments and 3 different agents which can navigate all areas plus all Assignment 1 requirements (**60 marks**).
2. Interesting maze with interesting environment setup (**20 marks**).
3. Create a video clip from your working game post it on Youtube. You may edit your clip to show/demo that your agents use some environments and avoid others (**20 marks**).
4. **Note that your submissions shouldn’t have any compile or compatibility problem. In other words, after downloading, it can be opened directly in Unity 2018.2.xxx without any problem. If there is a problem of opening of the file, there is no guaranty that your assignment will be marked.**

**Submission**

1. Include all required assets in your project and compress it using zip and submit it before the due date.
2. Submit the Youtube link separately in eCentennial.
3. If you opted to not to create a video clip, you need to present your work in Week 9 to your professor.