The University of Western Ontario
London, Ontario, Canada
Department of Computer Science

CS 4482a – Video Game Programming and Engine Development

APP 2 – Write an award winning game

1 Introduction

The year is 2016 and you are one of the greatest game programmers of all time. The CEO of your burgeoning company comes to you late on a Friday after noon (as it is always) and tells you that we have to have the prototype of the newest hotness ready to go by Monday or you'll lose your window for greatness.

Your company's team of crack designers has given you a few solid designs to work with. They've given you the choice of which to go with so don't let them down!

Depending on which engine you choose to work with you will have to make consessions, or push it to it's limits to really impress these hardcore users.

- **Option 1:** Using OGRE (or other) - *Ultimate Tag: Deathmatch*
- **Option 2:** Using Unity - *Dart Tag: Not Just for Kids*
- **Option 3:** Using Unity - *The Maze Runner: Not a Ripoff*

The settings for both tag games is flexible, either an indoor or outdoor environment is acceptable. They both will require a human and computer AI, with the main difference being that *Dart Tag* will require actual projectiles to tag your opponent. In the more retro styled *Ultimate Tag* you will model the game along the more classic *Chase: Him Down* only requiring you to tag your opponent.

Since this course doesn't cover 3D modelling or level design you may use the default resources that come with you SDK of choice. You may also use any other resource you find on the internet (just make sure you give credit to whomever built the models you are using).

Option 3: Using Unity - *The Maze Runner: Not a Ripoff*

- A single human player
  - A 3rd person camera view that follows the player
  - Player must be represented by 3D meshes
  - Player must display with an animated run-cycle or walk-cycle when they move. It doesn't have to be fancy, but it has to be animated
- Players must not be able to pass through walls.
- The player's goal is to reach the end of the maze.
  - The maze can be constructed of either a 3D model (created in a 3D modeler like Blender) or by using Unity primitives as the walls
  - The maze must have an entrance and an exit
  - The maze must have at least 3 doors that are opened by corresponding keys
- The game must have a UI to keep track of time to complete the maze
  - Each score will be added to a leaderboard on completion (with a 3 character name entry)
- The game must end when reaching the exit to the maze
- When the game is complete it must *gracefully* restart.
- Create a simple title screen using uGUI
  - Start
  - Leaderboard
  - Exit
- Create an in-game pause menu accessible with ESC to restart or exit at any time