

AI Architecture

Due:

Friday October 28th (Github info)

Friday November 4th (everything else)

Objective:

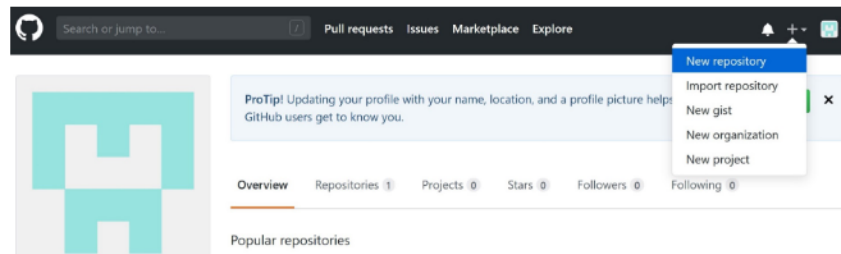
This project has the following objectives:

- Develop a simple AI architecture based on GOAP, Subsumption, or a Blackboard system
- Write a one-page report to reflect on what you've done
- Please use **Unity 2021.3.6f** (<https://unity3d.com/unity/whats-new/2021.3.6>)

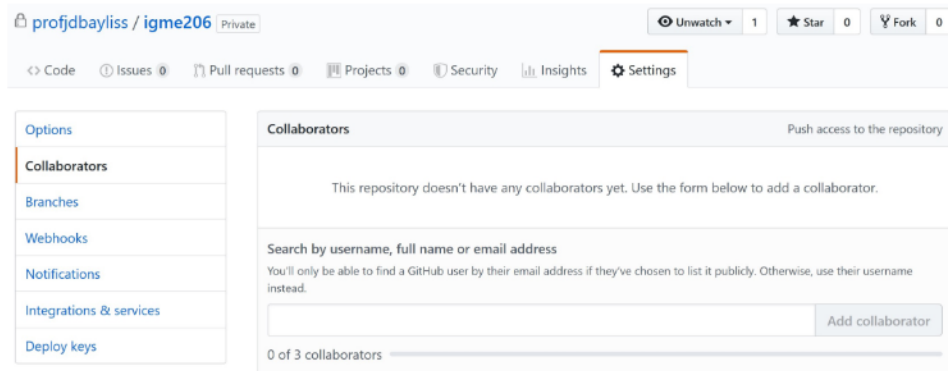
Details:

The requirements for this project are the following:

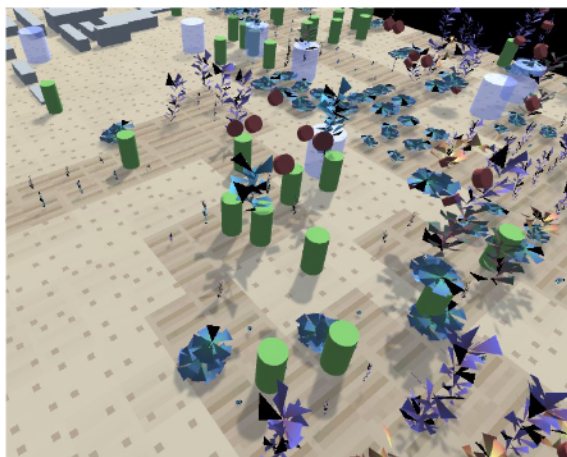
1. This is the only part of the assignment due on Oct. 28. Create or use an account on github.com and do the following:
 - a. Create a new repository called **GameAI**



- b. Make this repository “private” when you set it up
- c. Add your professor as a collaborator. My RIT account for github is profjdbayliss



- d. Name the project directory **GameArchitecture** (one word with no spaces).
 - e. Submit a text file with your github username in it to the dropbox for the Oct 28th assignment. This part of the assignment will count for 10 points of the overall assignment.
2. Use the Unity engine for this project as the goal is to program AI and not all the other parts of an engine. **Note that for Unity projects please do not submit the Library directory.**
3. Without using any pre-written and existing AI classes or scripts from the engine or existing code samples online, create a simple simulation using either GOAP, Subsumption, or a Blackboard system. It should be similar in scope to the basic constructs in the Auto Farmer example below (the sim has farmers that tend crops and sell them when they're grown), except obviously it should be your own creation with your own architecture (and probably not in DOTS):
 - a. <https://github.com/Unity-Technologies/DOTS-training-samples>



4. Find outside art assets and do not generally create them yourself. It is acceptable to use basic cubes, cylinders, and other shapes for your project. If you use a free asset from somewhere, please cite it.

5. Create a written report to the myCourses dropbox on the assignment with the following information. This writeup should be individual. The following information should be given:
- Name
 - Your github username so that I can pull your code from github.
 - A class diagram. Note that Visual Studio will allow you to create a class diagram. Here are the instructions for that:
 - <https://learn.microsoft.com/en-us/visualstudio/ide/class-designer/how-to-add-class-diagrams-to-projects?view=vs-2022>
 - State why you chose the particular architecture you did and what positive and/or negative things you believe exist for that particular architecture.
 - A diagram for the design of your particular AI. You should also have text describing what the AI does and how it works so that I understand what you did from a high level.
 - Any questions you have that you came across and haven't been answered.