GAME OF THE AMAZONS

MAT364 Group Project

A GitHub for the project can be cloned at
https://github.com/FourFangedCow/Amazons

INCLUDED FILES

- **AmazonsAI Solution**
    o AmazonsAI Project
        ▪ *This is where all the student code should be written.*
    o AmazonsAIBase Project
        ▪ *Contains the base classes for most of the important game functionality and the AI for reference. DO NOT EDIT THIS CODE.*
- **Amazons Unity Project**
    o Amazons Executable
        ▪ *This is the "stable" version of the game. Stable is a strong word for how it functions currently.*
    o Amazons_Data Folder
        ▪ *Unity-generated assets. Must be in the same directory as the executable for the game to run.*
    o AI Folder
        ▪ *Storage for all the compiled AI projects.*

PROJECT SET-UP

Image references can be found here: http://imgur.com/a/uEoEY

1. Open AmazonsAI.sln
2. Right-click AmazonsAI in the solution explorer -> Properties (f. 1)
3. Change Assembly Name under Application (f. 2)
4. Open StudentAI.cs (f. 3):
    a. Change class name
    b. Change base constructor name
    c. Change student name
5. Implement YourMove function

GENERAL INFORMATION

All of your AI code must be contained within the AmazonsAI project (C#). You can create extra files, reference external libraries, and write as many other functions as you want as long as the following requirements are met:

- Class extending AmazonAIBase.AIBase
  - Base constructor setting student name
  - Override YourTurn() function

The function YourTurn will be called whenever the game needs a move from your AI. For obvious reasons, try not to make it take forever calculating your move. There is a (untested) timeout of 10 seconds per AI turn.

Do NOT add extra parameters to the YourTurn function. It must override the virtual function in the base class and changing any parameters or causing it to return something else will cause the build to fail.

Do NOT edit the code contained within the AmazonsAIBase.AIBase class. It will allow you to compile but it will not be reflected in the final build of the game and cause your AI to behave unpredictably. If you feel that something in this needs to be changed, please contact me instead.

Do NOT let your Assembly name be the same as the any other person on the team. Basically the game will not be able to correctly load your AI if it has the same class or assembly name as someone else. If you just use your first and last name, this should be a nonissue.

Do NOT make your AI cheat. Just because you might be able to directly edit the board does not mean you should. Especially in the first pass, a lot of the variable are unprotected. Hopefully this will change in the future.

TESTING AI

The included solution should properly place the compiled .dll into the correct folder as long as you do not change the folder structure beyond the MAT364_GroupProject. You simply must build the project using release mode and then run the executable. If this does not work, the old instructions for getting it to function are below.

In order to get your AI to appear in the in-game interface, you must place the compiled .dll into the Amazons Unity Project/AI folder.

1. Build AmazonsAI (f. 4, I suggest using release mode)
2. Locate the DLL in AmazonsAI Solution/AmazonsAI/bin/Release
3. Move *ASSEMBLYNAME*.dll to Amazons Unity Project/AI

When the Amazons executable is run, it should automatically detect the new AI and make a new checkbox on the left side of the main menu. I WILL change the solution to automatically deposit your .dll into the proper directory, but I'm not at a computer with visual studios right now.

BUGS AND FEATURE REQUESTS

If you come across something you believe is a bug (which you will, because I probably messed something up), please try to give reproducible steps or as much information as possible.

If you want access to something that is protected or private, are a lazy scrub and want me to write a line check function for you, or think that anything in AmazonsAIBase needs to be changed, feel free to contact me as well.

You can find me at the far back corner (literally the corner) of Edison by row X and Newton, opposite the Salt Mines. Or you can email me at Craig.Jong@digipen.edu.