Homework OpenAI baseline library

Assigned 06/16/22

Due: 06/20/22

Total points: 5

You can work in groups of up to 2 people.

**Homework Description**: in this homework, you are going to explore using openAI stable baseline library for three Gym environments you choose. One of them should be cart-pole. Here are the exploration tasks for this assignment.

<https://stable-baselines3.readthedocs.io/en/master/guide/examples.html#id3>

Use the colab notebooks in the example section for your experiments.

For each game environment:

1. Experiment playing the game using the default parameters of A2C, DQN and PPO
   1. Plot their performance on a single graph for comparison
   2. Record a video for the best performing one from each of the three algorithms
2. Run additional experiments on a combination of env and algorithm of your choice. Try things out such as learning rate schedule, Hindsight Experience Replay, or multi-processing.

**Turn in:**

1) the entire project with a readme file for how to run your code

2) report from your experiments

3) discussions on the results of your experiments.