# RL Project Checkpoint

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For our RL project this semester; we want to build an RL agent that can easily beat the CartPole game.

CartPole v1 is a game environment provided in the Gym package from OpenAI. In this environment, there is a pole, attached to a cart (hence the name CartPole). The cart moves along a frictionless track. Force is applied in the left and right direction of the cart. The goal of the game is to keep the pole upright for as long as possible. For each step taken, a +1 reward is given, including the termination step. The maximum points achievable in the game is 475. There are a few conditions that, if met, will end the game.

In this checkpoint document, we will provide details and update on our current experiments. As stated in the proposal, Airi are implmeneting Q-Learning, while Khoi will be implmeneting TD-learning.

For Airi's progress, she was able to create a code that successfully play the game using a Q-learning algorithm.