**Spring 2022 Introduction to Artificial Intelligence**

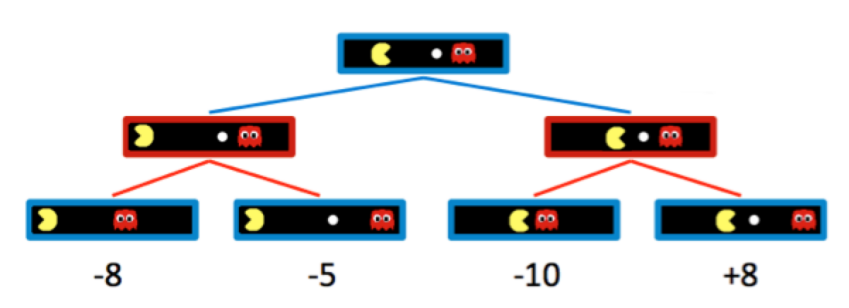
**Report of Homework #1**

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**Part 1 : Adversarial search**

Part 1-1: Minimax Search



By assuming the Pacman starts with 10 points and loses 1 point per move, and the game stops whenever the Pacman eats the pellet or

簡單講一下 minimax 運作原理

講一下程式架構、配程式截圖

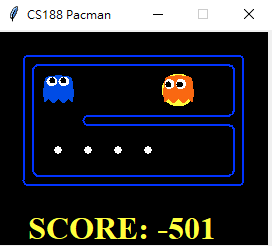
講一下結果輸出、配終端機結果截圖

Ref

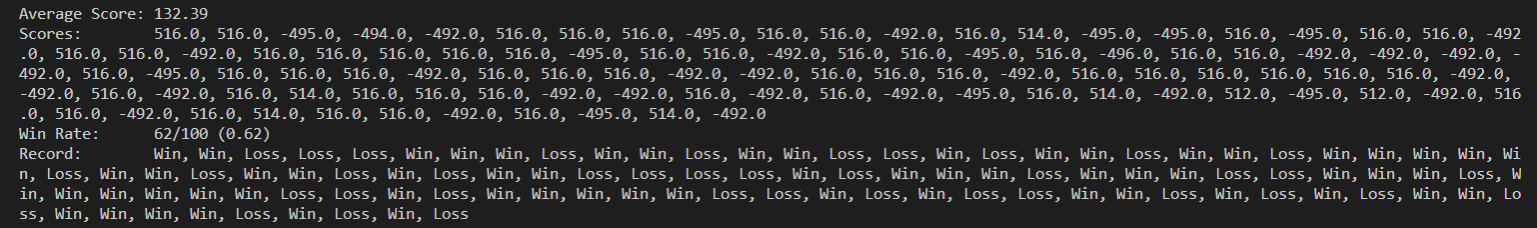
[n3.pdf (berkeley.edu)](https://inst.eecs.berkeley.edu/~cs188/fa18/assets/notes/n3.pdf)

[adversarial\_search/multiAgents.py at master · srinadhu/adversarial\_search · GitHub](https://github.com/srinadhu/adversarial_search/blob/master/multiagent/multiAgents.py)









Part 1-2: Expectimax Search

Part 1-3: Evaluation Function (Bonus)

**Part 2 : Q-learning**

Part 2-1: Value Iteration

Part 2-2: Q-learning

Part 2-3: epsilon-greedy action selection

Part 2-4: Approximate Q-learning

**Part 3 : DQN**

**Part 4 : Try other SOTA methods (Bonus)**