***COSC1125/1127 Artificial Intelligence***

***Project 4, 2018***

***Contest: Pacman Capture the Flag***

***Report***

***Team name -- hopedreamer***

***Team member:***

***s3569974 Ning Nan***

***s3512592 Chao Geng***

***s3558075 Yang Ding***

**Introduction**

<-- Assignment overview -->

<-- expectation of agents -->

<-- possible methods to create agents -->

<-- expectation of results -->

**Type of techniques used**

Mix agents

* Offensive agent

Approximate Q Learning method

<-- more explanations required -->

<-- explain what is approximate Q learning method-->

<-- advantage -->

<-- disadvantage -->

<-- reason to use -->

* Defensive agents

Based on minmax method, idea from multiagent assignment

<-- more explanations required -->

<-- explain what is minimax method-->

<-- advantage -->

<-- disadvantage -->

<-- reason to use -->

**Design decisions**

Concepts of design

<-- May follow bit comments and explain in detail -->

<-- Starting idea -->

<-- Building agent structure -->

<-- **Approaches taken, include discard approaches** – explain in detail -->

<-- **Challenges experiences** – explain in detail -->

<-- Fix challenges-->

<-- Unfixed Challenges and why -->

**Possible improvements**

<-- what are the possible disadvantage of our agents-->

<-- What could be done better-->

**Experimental section**

justifies and explains the performance of the approaches implemented

<-- Local experimental results-->

* Result 1
* Improve agent
* Result 2
* Improve agent
* Result 3
* Improve agent

……….

<-- Contest results from teacher -->

* Result 1
* Improve agent
* Result 2
* Improve agent
* Result 3
* Improve agent

……….

**Final conclusion**