

# Pacman Project 1

# Rule-based System

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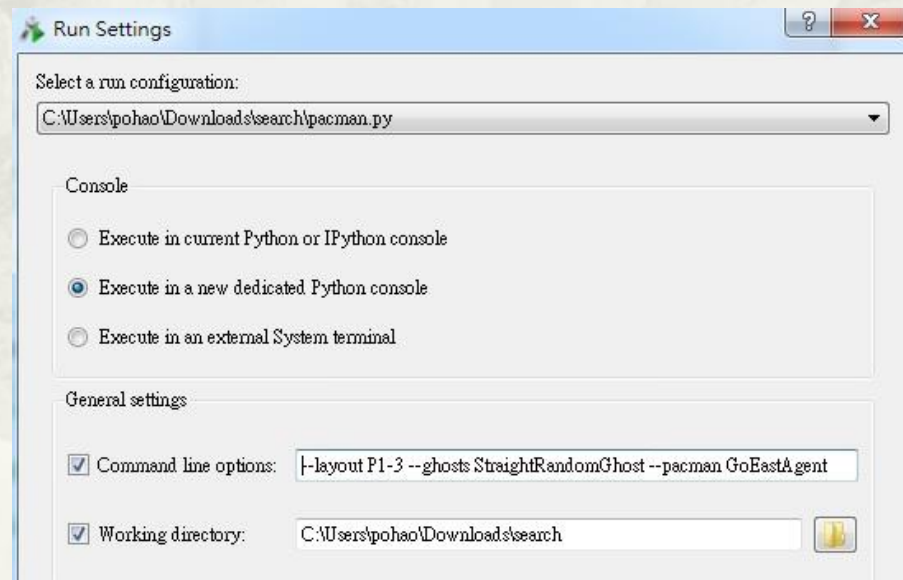
# Objectives

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- \* Learn basics of search agents in Pacman.
- \* Learn basics of game states in Pacman.
- \* Implementation of Rule-based agents.
- \* Enjoy!

# Setting Command Line Arguments

- \* --layout P1-X --ghost StraightRandomGhost --pacman XXAgent
- \* -l P1-X -g StraightRandomGhost -p XXAgent
- \* -l P1-X -g StraightRandomGhost “for playing with keyboard”



# P1-1 GoEastAgent (40%)

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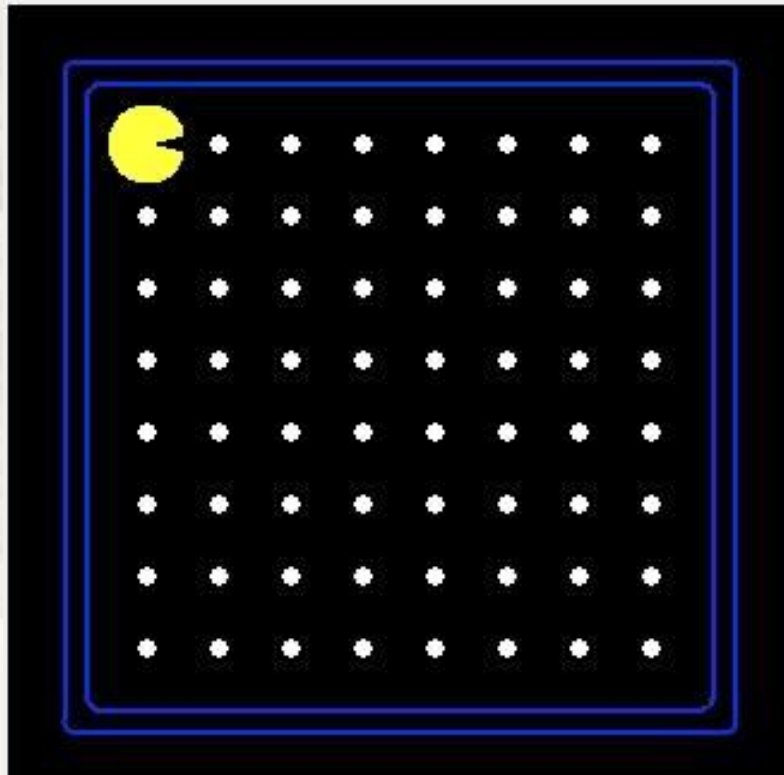
- \* Go east and eat the dot !
- \* -l P1-**1** -p **GoEastAgent**



# P1-2 CleanerAgent (20%)

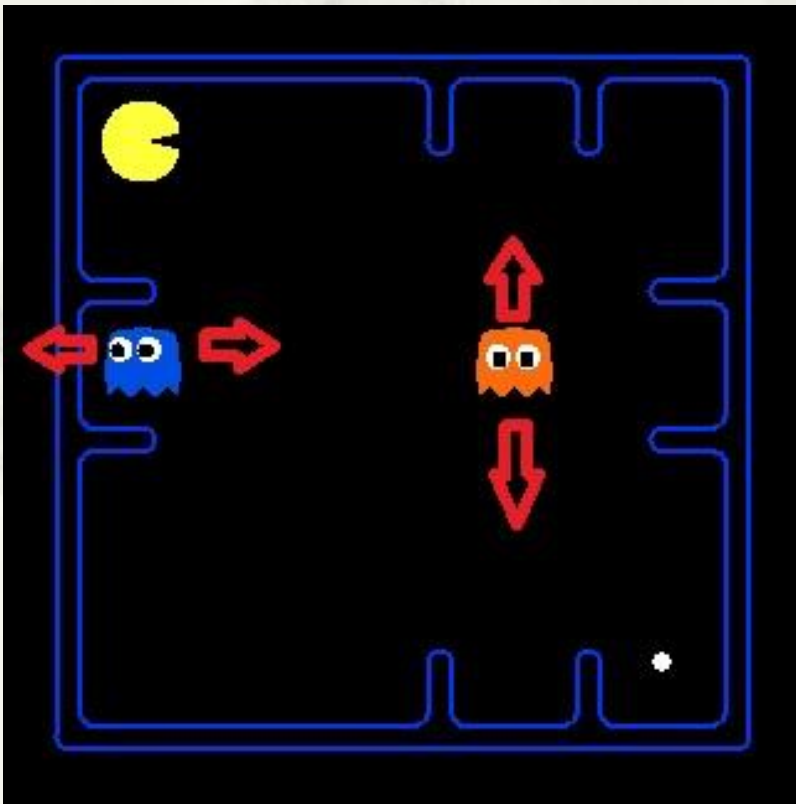
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- \* The floor is too dirty. Go clean all the dots!
- \* -l P1-2 -p CleanerAgent



# P1-3 FroggerAgent (15%)

- \* Watch out, cross the road, and eat the dot !
- \* -l P1-3 -g StraightRandomGhost -p **FroggerAgent**

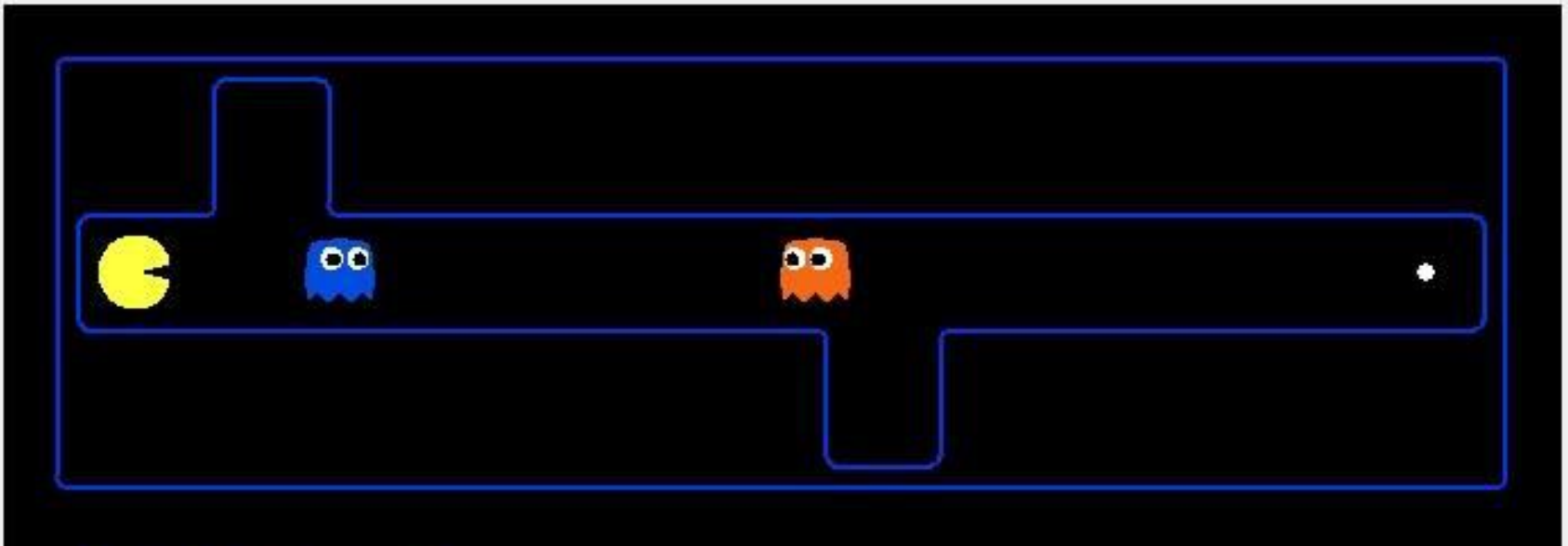


It's dangerous to cross the road with eyes closed!

Ghosts might initialize at different location when TAs grade you code.

# P1-4 SnakeAgent (15%)

- \* Be sneaky, dodge the ghosts, and eat the dot !
- \* Ghosts only move horizontally.
- \* -l P1-4 -g StraightRandomGhost -p SnakeAgent



# Hints

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- \* Modify **only searchAgents.py**, search “Project 1”
- \* Read class GameState in pacman.py(getXX() should be useful)
- \* Read game.py. This file describes several supporting types like AgentState, Agent, etc.
- \* Read util.py. Useful data structures for implementing search algorithms.
- \* Read default agent classes in searchAgents.py to learn how agents work.



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**Be Creative!**

# Contacts

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