

# 11510726 Assignment 3 毛煦冰

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[(python27) bash-3.2$ python2 pacman.py -p ReflexAgent -l smallClassic -g MinimaxGhost -n 5
Pacman died! Score: -189
Pacman died! Score: -279
Pacman died! Score: -57
Pacman died! Score: -322
Pacman died! Score: -270
Average Score: -223.4
Scores:      -189.0, -279.0, -57.0, -322.0, -270.0
Win Rate:    0/5 (0.00)
Record:      Loss, Loss, Loss, Loss, Loss
```

```
[(python27) bash-3.2$ python2 pacman.py -p ReflexAgent -g RandomGhost -l smallClassic -n 5
Pacman emerges victorious! Score: 959
Pacman emerges victorious! Score: 986
Pacman died! Score: -419
Pacman died! Score: 136
Pacman died! Score: -419
Average Score: 248.6
Scores:      959.0, 986.0, -419.0, 136.0, -419.0
Win Rate:    2/5 (0.40)
Record:      Win, Win, Loss, Loss, Loss
```

```
[(python27) bash-3.2$ python2 pacman.py -p MinimaxAgent -g MinimaxGhost -l smallClassic -n 5
Pacman died! Score: -377
Pacman died! Score: -362
Pacman died! Score: -384
Pacman died! Score: -186
Pacman died! Score: 315
Average Score: -198.8
Scores:      -377.0, -362.0, -384.0, -186.0, 315.0
Win Rate:    0/5 (0.00)
Record:      Loss, Loss, Loss, Loss, Loss
```

```
[(python27) bash-3.2$ python2 pacman.py -p MinimaxAgent -g RandomGhost -l smallClassic -n 5
Pacman died! Score: -376
Pacman died! Score: -205
Pacman died! Score: 91
Pacman died! Score: 170
Pacman died! Score: -19
Average Score: -67.8
Scores:      -376.0, -205.0, 91.0, 170.0, -19.0
Win Rate:    0/5 (0.00)
Record:      Loss, Loss, Loss, Loss, Loss
```

| Map: smallClassic | Random Ghost                      | Minimax Ghost                     |
|-------------------|-----------------------------------|-----------------------------------|
| Reflex Agent      | Won: 2/5<br>Average Score: 248.6  | Won: 0/5<br>Average Score: -223.4 |
| Minimax Agent     | Won: 0/5<br>Average Score: -198.8 | Won: 0/5<br>Average Score: -67.8  |

4. According to the table, we can find that minimax Ghost have lower score than Random Ghost. It can let ghost catch the agent more quickly in order to get a lower score.

5. Because they have same aim.