

Some screenshots and results:

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C:\Users\Abigile\Desktop\senior\AIB\Assignment3\prac4_Pacman>python2 pacman.py -l smallClassic -g RandomGhost -p ExpectimaxAgent -q -n 5
Pacman emerges victorious! Score: 1045
Pacman died! Score: -31
Pacman died! Score: 145
Pacman died! Score: -169
Pacman died! Score: 109
Average Score: 219.8
Scores:      1045.0, -31.0, 145.0, -169.0, 109.0
Win Rate:    1/5 (0.20)
Record:      Win, Loss, Loss, Loss, Loss
```

```
C:\Users\Abigile\Desktop\senior\AIB\Assignment3\prac4_Pacman>python2 pacman.py -l smallClassic -g MinimaxGhost -p ExpectimaxAgent -q -n 5
Pacman emerges victorious! Score: 788
Pacman died! Score: -655
Pacman died! Score: -200
Pacman died! Score: 0
Pacman died! Score: 293
Average Score: 45.2
Scores:      788.0, -655.0, -200.0, 0.0, 293.0
Win Rate:    1/5 (0.20)
Record:      Win, Loss, Loss, Loss, Loss
```

	Random Ghost	Minimax Ghost
Minimax Pacman	-176.6, won 0/5	-281.4 won 0/5
Expectimax Pacman	219 won 1/5	45.2 won 1/5

3.

From the results above we can conclude that the expectimax agent moves slower than minimax agent. The faster one move to the best position to get the food and at the same time stay away from the ghost.

4.

Although the ghosts may go through different roads, they use the same algorithm, they have the same goal, so they seem to be cooperating