

Value Iteration Agent Report

The first question asks to implement a value iteration agent. We are asked to implement the `iterate()` and the `extractPolicy()`.

There are three rule based agents against which we test. They are:

1. Random agent
2. Aggressive agent
3. Defensive agent

The user plays the game in the below output:

Choose location to put your O based on the following scheme.

0|1|2

3|4|5

6|7|8

Your move: 0

Playing move: O(0,0)

|O| | |

| | | |

| | | |

Playing move: X(1,1)

|O| | |

| |X| |

| | | |

Choose location to put your O based on the following scheme.

0|1|2

3|4|5

6|7|8

Your move: 6

Playing move: O(2,0)

|O| | |

| |X| |

|O| | |

Playing move: X(1,0)

|O| | |

|X|X| |

|O| | |

Choose location to put your O based on the following scheme.

0|1|2

3|4|5

6|7|8

Your move: 5

Playing move: O(1,2)

|O| | |

|X|X|O|

|O| | |

Playing move: X(0,1)

|O|X| |

|X|X|O|

|O| | |

Choose location to put your O based on the following scheme.

0|1|2

3|4|5

6|7|8

Your move: 7

Playing move: O(2,1)

|O|X| |

|X|X|O|

|O|O| |

Playing move: X(2,2)

|O|X| |

|X|X|O|

|O|O|X|

Choose location to put your O based on the following scheme.

0|1|2

3|4|5

6|7|8

Your move: 2

Playing move: O(0,2)

|O|X|O|

|X|X|O|

|O|O|X|

It's a draw.

The below output is tested against the provided test cases

Against Random Agent:

X won!

Wins: 49 Losses: 0 Draws: 1

Against Aggressive Agent:

X won!

Wins: 49 Losses: 0 Draws: 1