Value Iteration Agent Report

Student Declaration of Authorship

Course code and name:	F29AI – Artificial Intelligence and Intelligent Agents
Type of assessment:	**Individual**
Coursework Title:	AI CW2 – Tic Tac Toe
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Against Aggressive Agent

```
Against Aggressive Agent:          Playing move: X(2,0)
Playing move: X(2,0)
                                   | | | |
| | | |                            | | | |
| | | |                            |X| | |
|X| | |
                                   Playing move: O(1,2)
Playing move: O(0,1)
                                   | | | |
| |O| |                            | | |O|
| | | |                            |X| | |
|X| | |
|                                  Playing move: X(0,0)
Playing move: X(2,2)
                                   |X| | |
| |O| |                            | | |O|
| | | |                            |X| | |
|X| |X|
                                   Playing move: O(0,1)
Playing move: O(1,1)
                                   |X|O| |
| |O| |                            | | |O|
| |O| |                            |X| | |
|X| |X|
                                   Playing move: X(1,0)
Playing move: X(2,1)
                                   |X|O| |
| |O| |                            |X| |O|
| |O| |                            |X| | |
|X|X|X|
                                   X won!
X won!                             Wins: 50 Losses: 0 Draws: 0
Playing move: X(2,0)
```

Against Defensive Agent

```
Against Defensive Agent:
Playing move: X(2,0)

| | | |
| | | |
|X| | |

Playing random move
Playing move: O(1,2)

| | | |
| | |O|
|X| | |

Playing move: X(0,0)

|X| | |
| | |O|
|X| | |

Playing defensive move
Playing move: O(1,0)

|X| | |
|O| |O|
|X| | |

Playing move: X(1,1)

|X| | |
|O|X|O|
|X| | |

Playing defensive move
```

```
Playing move: X(2,2)

| | |O|
| | | |
|X| |X|

Playing defensive move
Playing move: O(2,1)

| | |O|
| | | |
|X|O|X|

Playing move: X(0,0)

|X| |O|
| | | |
|X|O|X|

Playing defensive move
Playing move: O(1,0)

|X| |O|
|O| | |
|X|O|X|

Playing move: X(1,1)

|X| |O|
|O|X| |
|X|O|X|

X won!
Wins: 42 Losses: 0 Draws: 8
```

Against Random Agent

```
Against Random Agent:
Playing move: X(2,0)

| | | | |
| | | | |
|X| | |

Playing move: O(1,0)

| | | | |
|O| | |
|X| | |

Playing move: X(1,1)

| | | | |
|O|X| |
|X| | |

Playing move: O(2,2)

| | | | |
|O|X| |
|X| |O|

Playing move: X(0,2)

| | |X|
|O|X| |
|X| |O|

X won!
Playing move: X(2,0)
```

```
Playing move: X(2,0)

| | | | |
| | | | |
|X| | |

Playing move: O(2,2)

| | | | |
| | | | |
|X| |O|

Playing move: X(0,0)

|X| | |
| | | | |
|X| |O|

Playing move: O(0,2)

|X| |O|
| | | | |
|X| |O|

Playing move: X(1,0)

|X| |O|
|X| | |
|X| |O|

X won!
Wins: 50 Losses: 0 Draws: 0
```