Policy Iteration Agent Report

Course code and name:	F29AI
Type of assessment:	**Individual**
Coursework Title:	Coursework 2 ,Tic-Tac-Toe Game
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Copy this page and insert it into your coursework file in front of your title page.
For group assessment each group member must sign a separate form and all forms must be included with the group submission.

Your work will not be marked if a signed copy of this form is not included with your submission.

The Policy iteration agent requires the implementation of improvePolicy(), evaluatePolicy() and train() methods.

The rule based agents are:

- Aggressive Agent
- Defensive Agent
- Random Agent

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

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

Playing move: O(1,1)

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

Playing move: X(0,1)

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

Playing move: O(2,2)

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

Playing move: X(0,2)

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

X won!
```

Wins: 50 Losses: 0 Draws: 0

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

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

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

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

Playing move: X(1,1)

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

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

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

Playing move: X(0,2)

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

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

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

Playing move: X(2,0)

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

X won!
```

Wins: 43 Losses: 0 Draws: 7

```
Against Aggressive Agent:
Playing move: X(0,0)

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

Playing move: O(0,1)

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

Playing move: X(1,0)

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

Playing move: O(2,0)

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

Playing move: X(1,1)

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

Playing move: O(2,2)

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

Playing move: X(1,2)

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

X won!
```

Wins: 50 Losses: 0 Draws: 0