CS 747: Assignment 2

Soham Rahul Inamdar(210100149)

October 15, 2023

Objective of the assignment

The objective of this programming assignment was to implement algorithms such as policy iteration, value iteration and Linear Programming to solve a MDP. The second part involved the application of these algorithms in a practical scenario.

1 Task 1

Task 1 involved the implementation of the Value Iteration, Policy Iteration, Policy Evaluation and Linear Programming.

1.1 Value Iteration

I implemented value iteration according to standard algorithm given in the slides. It is providing me with the correct output although it is taking too long for a few test cases.

1.2 Policy Iteration

I implemented policy iteration according to standard algorithm given in the slides. It is providing me with the correct output although it is taking too long for a few test cases.

1.3 Policy Evaluation

I implemented policy evaluation according to standard algorithm given in the slides. It is providing me with the correct output although it is taking too long for a few test cases.

1.4 Linear Programming

I was not able to implement linear programming.

2 Task 2

Task 2 involved converting a practical problem to a MDP. I was not able to solve Task 2.

3 Learnings from this assignment

One should always start assignments **well before the deadline** to prevent such an unfavourable situation.