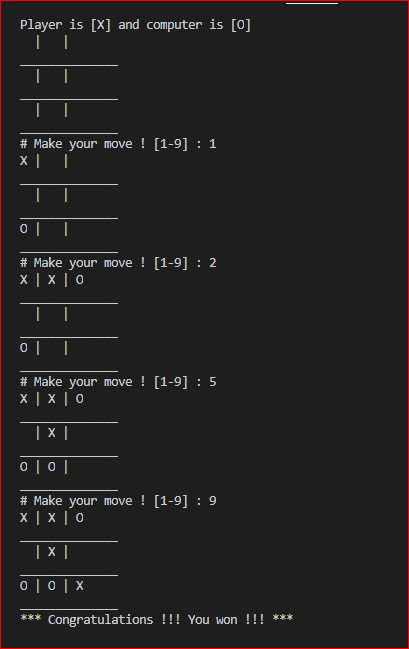
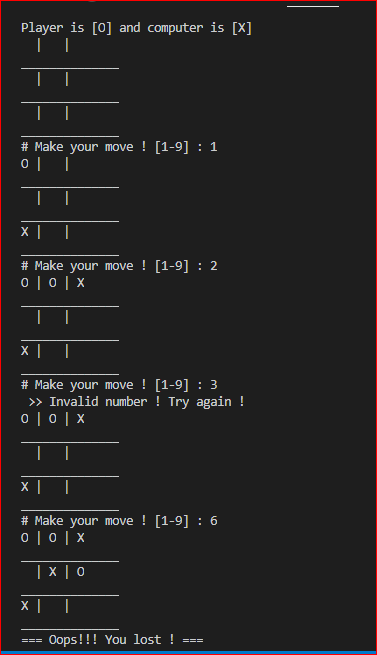
**AI Lab Programs Output**

1. **Implement Tic-Tac-Toe game.**

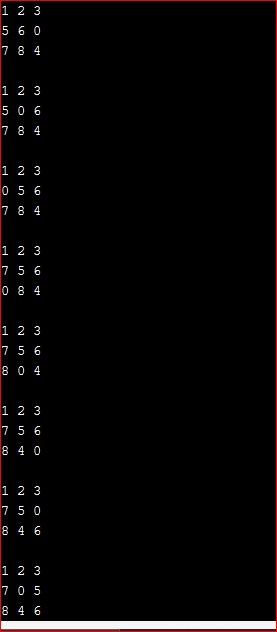
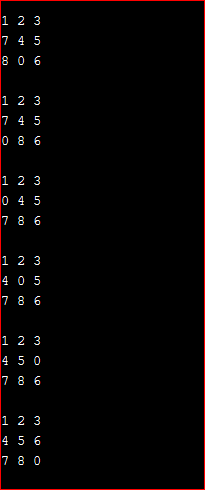
Test case 01:



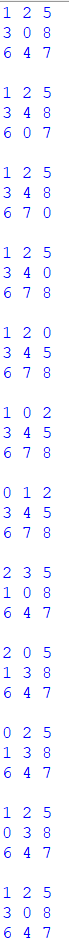
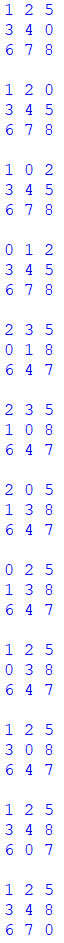
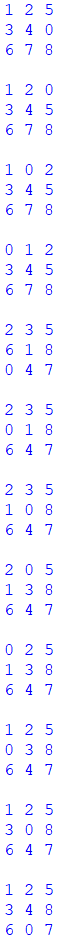
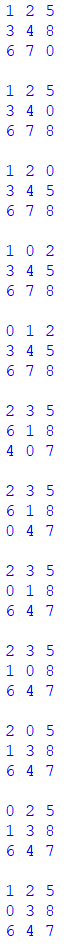
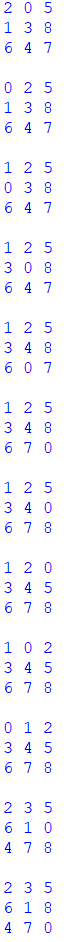
Test case 02:

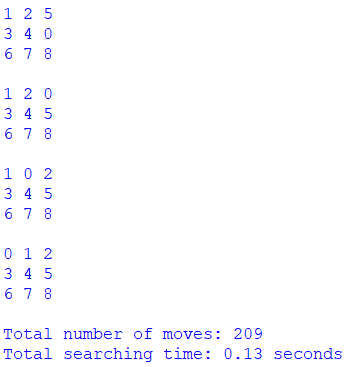


1. **Solve 8 puzzle problem.**

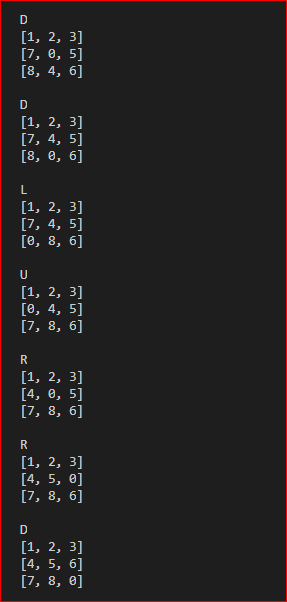
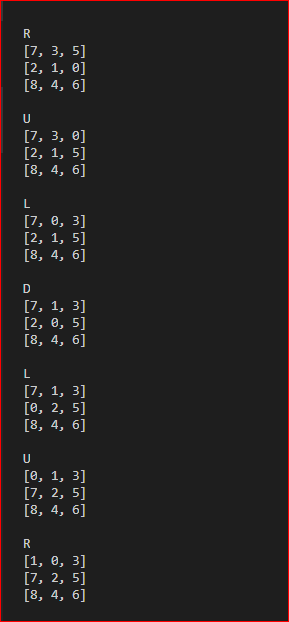
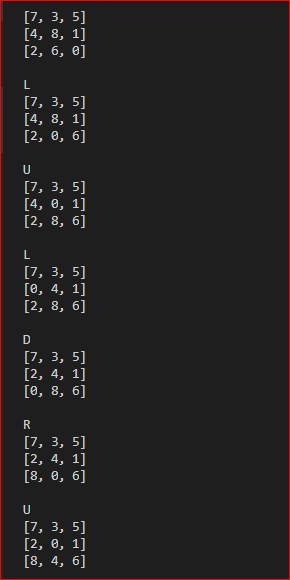
 

1. **Implement Iterative Deepening search.**

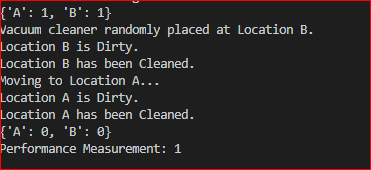
       

1. **Implement A\* search algorithm.**

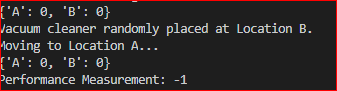


1. **Implement Vacuum cleaner agent.**

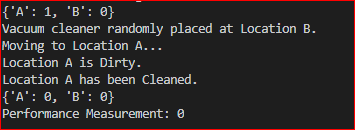
Test case 01:



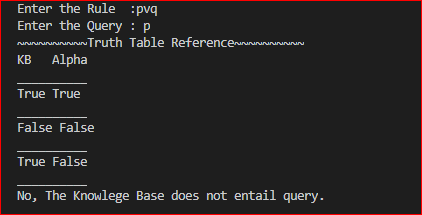
Test case 02:

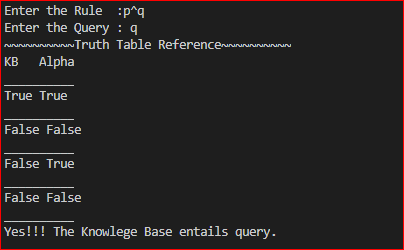


Test case 03:

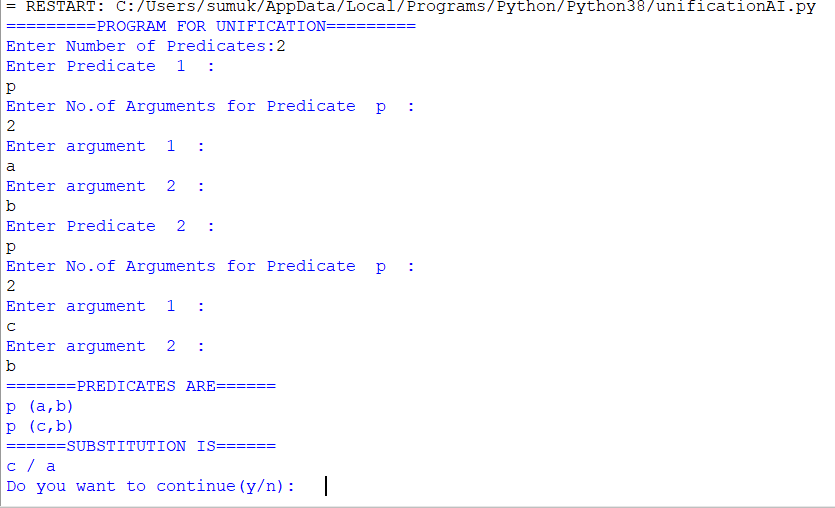


1. **Create a knowledge base using prepositional logic and show that the given query entails the knowledge base or not.**

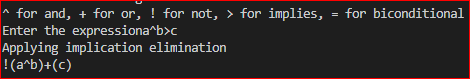


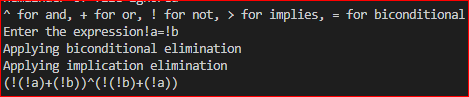


1. **Implement Unification in First order logic.**



1. **Convert giver First order logic statement into Conjunctive Normal Form.**





1. **Create a KB consisting of First order logic statements and prove the given query using forward reasoning.**



1. **Demonstrate decision tree learning for a given set of training examples and test data.**

