



AL2002 – Artificial Intelligence Lab

Lab Task # 05

Note:

- Plagiarism will not be **tolerated!!**
- Use comments wherever applicable.

Problem: 1 - Optimal Route Planning

You are tasked with developing a program to assist drivers in planning their routes across cities in India efficiently. To achieve this, you have been provided with a CSV file containing the distances between various cities in India.

Your program should read this CSV file and utilize the information to suggest the optimal path for a driver based on their input of the source and destination city.

Instructions:

1. Read the provided CSV file containing cities in India and their distances between them.
2. Prompt the user to input their source and destination city.
3. Utilizing the data from the CSV file, determine the optimal path using **A* searching algorithm** for the driver to minimize their travel distance.
4. Display the recommended path of cities to the user.
5. Additionally, calculate and display the total distance that will be covered by the driver from the source to the destination city.

Ensure your program is user-friendly and provides clear instructions to the user.