

1. Use the city “roaddistance” data given with this assignment. Assume that only these roads between the cities exist.
2. Write a Prolog program to search a road route from any city to any other city using this data. It should work for both cities that are directly connected (say, Ahmedabad to Indore) as well as for two cities that are not directly connected (say, Agartala to Hubli).
3. Now your program should either do option (a) or (b). Each option has two parts and both parts have to be done; have an input to decide which part is to be shown.
 - a. Show Depth First Search and Best-first search on this data. OR
 - b. Show Breadth First Search and A* search on this data.
4. You should use Prolog features such as Lists, Input/ Output, Recursion, Backtracking etc.
5. Create your own heuristics that are meaningful.
6. Should work for different inputs for different cities. That is, don't make it hard-coded for one set of cities.