University of Asia Pacific

Course Title - Artificial Intelligence & Expert System

Course Title - CSE 404

Submitted By -

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Section - A-1

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Problem Statement : Create your own map from your home district to University of Asia Pacific and write in any programming language to implement the A* search to reach the destination from the starting point by using the path costs and straight line distances.

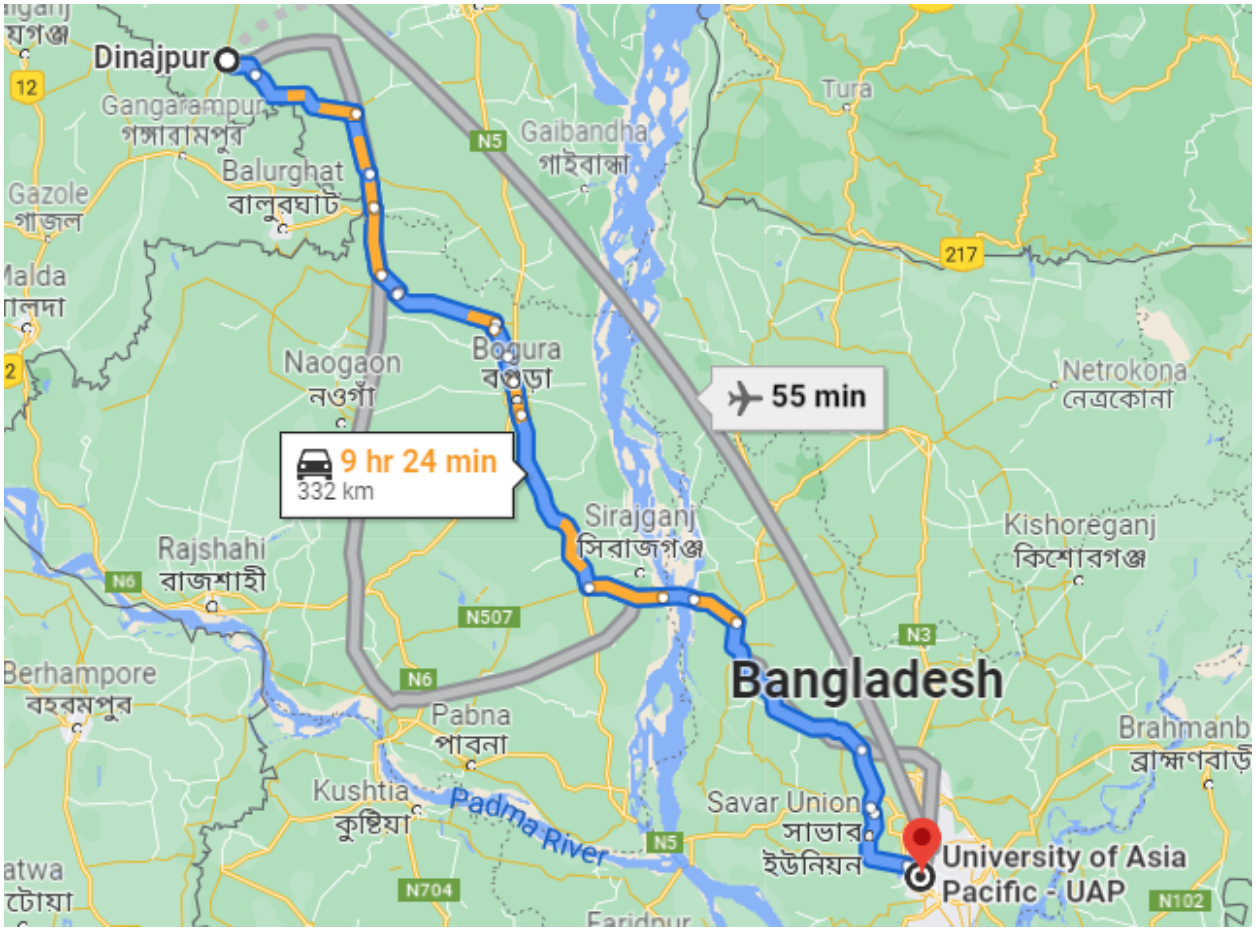
A* Search Algorithm

A* Algorithm in Python or in general is basically an artificial intelligence problem used for path-finding (from point A to point B) and the Graph traversals.

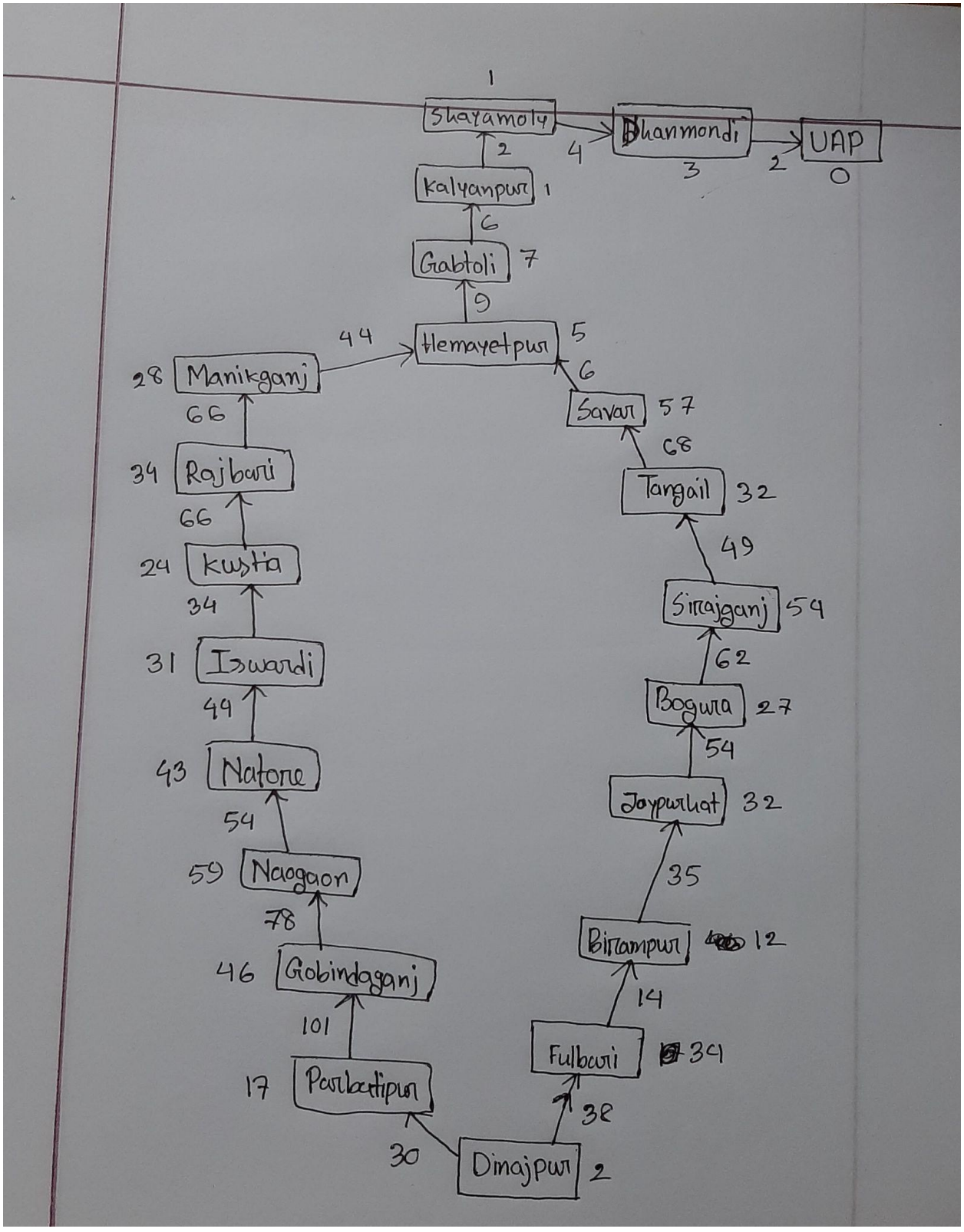
This Algorithm is the advanced form of the BFS algorithm (Breadth-first search), which searches for the shorter path first than the longer paths. It is a complete as well as an optimal solution for solving path and grid problems.

My Map

Google map : Dinajpur to University of Asia Pacific(UAP)



Corresponding Graph Structure and Search Tree:



Output :

Shortest Path : Dinajpur > Parbatipur > Gobindaganj > Naogaon > Natore > Ishwardi > Kustia > Rajbari > Manikganj > Hemayetpur > Gabtoli > Kalyanpur > Shayamoli > Dhanmondi > UAP