------------------------PROBLEM STATEMENT:------------------------------------------------------------------------

7 : Write a program which will differentiate between distance vector routing (DVR) and link state routing (LSR). Consider ‘n’ number of nodes/routers in a network. Make sure that number of links are greater than n. Randomly initialize weights for each link. For any source and destination find the shortest path chosen by DVR and LSR.

--------------------------------------Methods for dijkstra-------------------------Used for Link State Routing--------------------

Distance of source vertex from itself is always 0

Find shortest path for all vertices

Pick the minimum distance vertex

from the set of vertices not yet

processed. nearestVertex is

always equal to startNode in

first iteration.

Mark the picked vertex as processed

Update dist value of the adjacent vertices of the picked vertex.

shortestDistances[i] will hold the shortest distance from src

----------------------- BellmanFord algorithm is used for Distance Vector Routing------------------------------------------------------------------