**Write a program to implement link state/Distance vector routing protocol to find suitable path for transmission.**

#include Siostream>

#include <stdio.h>

using namespace std;

struct node {

int dist20

int from[20];

route[10];

int main)

int dm[20][20], no;

cout <"Enter no of nodes." << endl;

Cin>no0

cout < "Enter the distance matrix:" << endl;

for (int i=0; i< no; it+) {

for (intj= 0;j < no; j++)1

cin >> dm[0

\* Set distance from i to i as 0 "/

dm[][]= 0;

route[i].distj]= dm[i]U]:

route[i].fronm[j] = j;

int flag;

do{

flag=0;

for (int i 0; i < no; it++){|

for (int j = 0; j< no; J+\*){

for (int k= 0; k < no; k++) {

if(routefi].distfj]) > (routeli].dist|k] + route[k]. dist[i]))

route[i].dist[j] = route[î].dist|k] + route[k]|.distJl

route[i].from[j] = k;

flag= 1,

while (flag):

for (int i = 0; i< no; it+) {|

cout "Router info for router: " <i+|<<endl;

cout < "Dest\ltNext HopltDist" << endl;

for (int j = 0; j< no; jt+)

printf("%dt%d\ku%din", j+1, route[i].from[jl+1, route[i].dist[j]):

return 0;

**OUTPUT:**

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