Experiment 8

INPUT:-

#include<iostream>

using namespace std;

int main(){

int n,i,j,k,row,col,mincost=0,min;

char op;

cout<<"Enter no. of vertices:";

cin>>n;

int cost[n][n];

int visit [n];

for(i=0;i<n;i++)

visit[i]=0;

for(i=0;i<n;i++)

for(int j=0;j<n;j++)

cost[i][j]=-1;

for(i=0;i<n;i++){

for(j=i+1;j<n;j++){

cout<<"Do you want an edge between"<<i+1<<"and"<<j+1<<":";

cin>>op;

if(op=='y'||op=='Y'){

cout<<"Enter weight:";

cin>>cost[i][j];

cost[j][i]=cost[i][j];

}

}

}

visit[0]=1;

for(k=0;k<n-1;k++){

min=999;

for(i=0;i<n;i++){

for(j=0;j<n;j++){

if(visit[i]==1 && visit[j]==0){

if(cost[i][j]!=-1 && min>cost[i][j]){

min=cost[i][j];

row=i;

col=j;

}

}

}

}

mincost+=min;

visit[col]=1;

cost[row][col]=cost[col][row]=-1;

cout<<row+1<<"->"<<col+1<<endl;

}

cout<<"Min. Cost:"<<mincost<<endl;

return 0;

}

OUTPUT:-

Enter no. of vertices:5

Do you want an edge between1and2:y

Enter weight:3

Do you want an edge between1and3:y

Enter weight:4

Do you want an edge between1and4:n

Do you want an edge between1and5:y

Enter weight:8

Do you want an edge between2and3:y

Enter weight:2

Do you want an edge between2and4:y

Enter weight:4

Do you want an edge between2and5:n

Do you want an edge between3and4:y

Enter weight:10

Do you want an edge between3and5:n

Do you want an edge between4and5:y

Enter weight:4

1->2

2->3

2->4

4->5

Min. Cost:13

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Process exited after 62.14 seconds with return value 0

Press any key to continue . . .