```
//Created By Ritwik Chandra Pandey
//On 5th Nov' 2021
//Minimum spanning tree - Prim's Algorithm


#include<stdio.h>
#include<conio.h>
int a,b,u,v,n,i,j,ne=1,e,s,d,w;
int visited[10]={0},min,mincost=0,cost[10][10];
void prims() {
	visited[1]=1;
	while(ne<n){
		min = 999;
		for(i=1;i<=n;i++){
			if(visited[i]==1){
				for(j=1;j<=n;j++){
					if(visited[j]==0 && cost[i][j]<min){
						min = cost[i][j];
						a = u = i;
						b = v =j;
					}
				}
			}
		}
		printf("Edge cost from %d to %d : %d\n",a,b,min);
		ne++;
		mincost+=cost[a][b];
		visited[b]=1;
		cost[a][b] = cost[b][a] = 999;
	}
	printf("Minimum cost of spanning tree = %d\n",mincost);

}
void main() {
	printf("Enter the number of vertices : ");
	scanf("%d",&n);
	printf("Enter the number of edges : ");
	scanf("%d",&e);
	for(i=1;i<=e;i++) {
		printf("Enter source : ");
```

```
                scanf("%d",&s);
                printf("Enter destination : ");
                scanf("%d",&d);
                printf("Enter weight : ");
                scanf("%d",&w);
                if(s<=0 || d<=0 || s> n || d > n || w < 0 ) {
                        printf("Invalid data.Try again.\n");
                        i--;
                        continue;
                }
                cost[d][s]=w;
                cost[s][d]=w;
        }
        for(i=1;i<=n;i++) {
           for(j=1;j<=n;j++) {
                        if(cost[i][j]==0)
                            cost[i][j]=999;
           }
        }
        printf("The edges of Minimum Cost Spanning Tree are : \n");
        prims();
}
```