**Kruskal’s ALGORITHM**

#include<stdio.h>  
#include<conio.h>  
#include<stdlib.h>  
int i,j,k,a,b,u,v,n,ne=1;  
int min,mincost=0,cost[9][9],parent[9];  
int find(int);  
int uni(int,int);  
void main()  
{  
 clrscr();  
 printf("nntImplementation of Prim's algorithmnn");  
 printf("nEnter the no. of vertices n");  
 scanf("%d",&n);  
 printf("nEnter the cost adjacency matrixn");  
 for(i=1;i<=n;i++)  
 {  
 for(j=1;j<=n;j++)  
 {  
 scanf("%d",&cost[i][j]);  
 if(cost[i][j]==0)  
 cost[i][j]=999;  
 }  
 }  
 printf("nThe edges of Minimum Cost Spanning Tree are \n");  
 while(ne<n)  
 {  
 for(i=1,min=999;i<=n;i++)  
 {  
 for(j=1;j<=n;j++)  
 {  
 if(cost[i][j]<min)  
 {  
 min=cost[i][j];  
 a=u=i;  
 b=v=j;  
 }  
 }  
 }  
 u=find(u);  
 v=find(v);  
 if(uni(u,v))  
 {  
 printf("n%d edge (%d,%d) =%dn",ne++,a,b,min);  
 mincost +=min;  
 }  
 cost[a][b]=cost[b][a]=999;  
 }  
 printf("ntMinimum cost = %dn",mincost);  
 getch();  
}  
int find(int i)  
{  
 while(parent[i])  
 i=parent[i];  
 return i;  
}  
int uni(int i,int j)  
{  
 if(i!=j)  
 {  
 parent[j]=i;  
 return 1;  
 }  
 return 0;  
}