

main.c

```
1  #include<stdio.h>
2  #include<conio.h>
3  void kruskals();
4  int c[10][10],n;
5  void main(){
6      int i,j;
7      printf("\nEnter the no. of vertices:\n");
8      scanf("%d",&n);
9      printf("\nEnter the cost matrix:\n");
10     for(i=1;i<=n;i++){
11         for(j=1;j<=n;j++){
12             scanf("%d",&c[i][j]);
13         }
14     }
15     kruskals();
16     getch();
17 }
18 void kruskals(){
19     int i,j,u,v,a,b,min;
20     int ne=0,mincost=0;
21     int parent[10];
22     for(i=1;i<=n;i++){
23         parent[i]=0;
24     }
25     while(ne!=n-1){
26         min=9999;
27         for(i=1;i<=n;i++){
28             for(j=1;j<=n;j++){
```

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23     parent[i]=0;
24 }
25 while(ne!=n-1){
26     min=9999;
27     for(i=1;i<=n;i++){
28         for(j=1;j<=n;j++){
29             if(c[i][j]<min){
30                 min=c[i][j];
31                 u=a=i;
32                 v=b=j;
33             }
34         }
35     }
36     while(parent[u]!=0){
37         u=parent[u];
38     }
39     while(parent[v]!=0){
40         v=parent[v];
41     }
42     if(u!=v){
43         printf("\n%d----->%d=%d\n",a,b,min);
44         parent[v]=u;
45         ne=ne+1;
46         mincost=mincost+min;
47     }
48     c[a][b]=c[b][a]=9999;
49 }
50 printf("\nMinimun cost=%d",mincost);
51 }

```

I



Enter the no. of vertices:

4

Enter the cost matrix:

6 9999 20 89

3 17 87 34

9999 8 9999 25

10 9999 5 9999

2----->1=3

<

4----->3=5

3----->2=8

Minimum cost=16

...Program finished with exit code 0

Press ENTER to exit console.