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(globals)
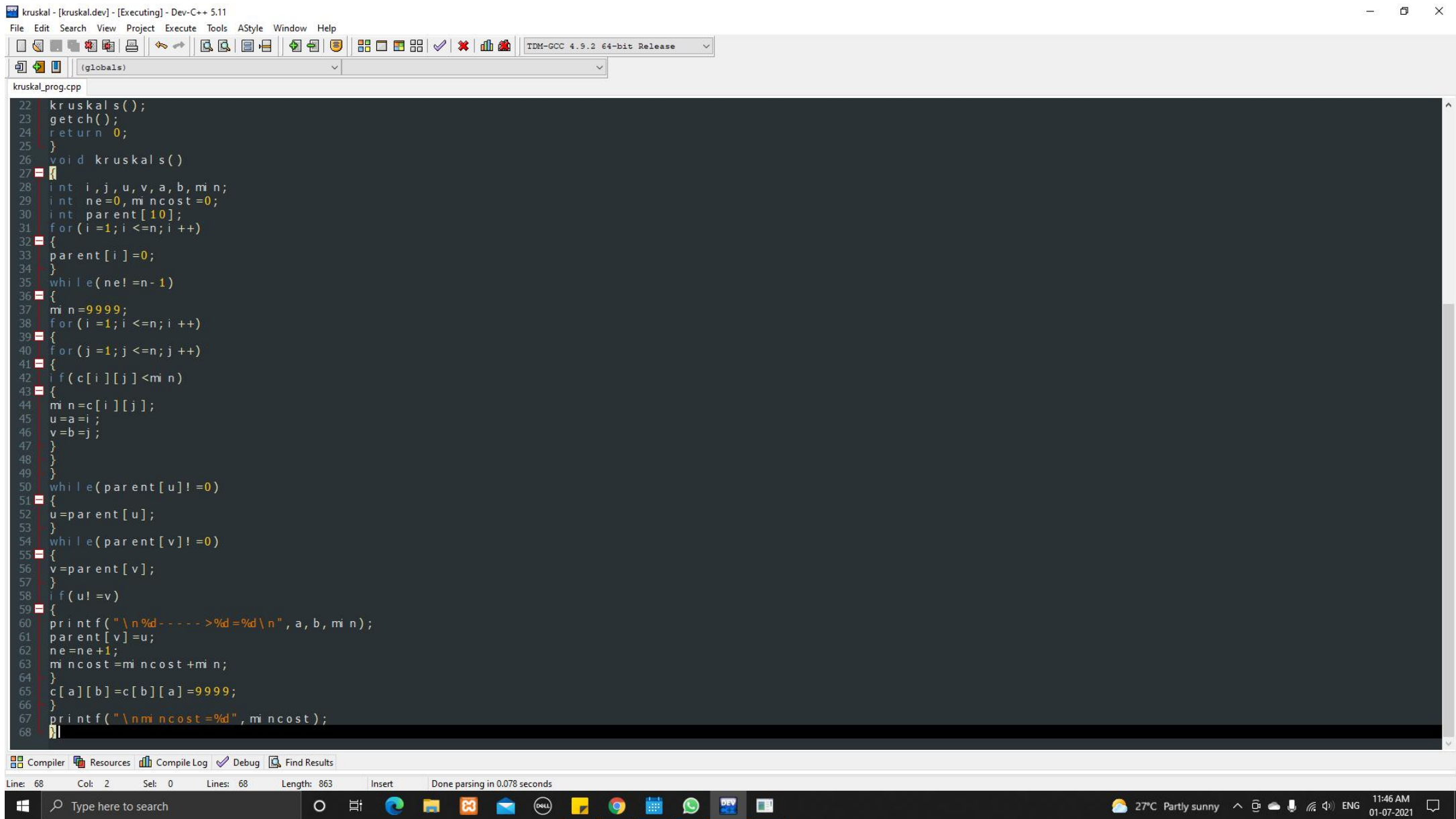
kruskal_prog.cpp

```c
#include<stdio.h>
#include<conio.h>
#include<process.h>
#include<stdlib.h>
void kruskals();
int c[10][10],n;
int main()
{
int i,j;
system("cls");
printf("\nenter the no. of vertices:\t");
scanf("%d",&n);
printf("\nenter the cost matrix:\n");
for(i=1;i<=n;i++)
{
for(j=1;j<=n;j++)
{

scanf("%d",&c[i][j]);
}
}
kruskals();
getch();
return 0;
}
void kruskals()
{
int i,j,u,v,a,b,min;
int ne=0,mincost=0;
int parent[10];
for(i=1;i<=n;i++)
{
parent[i]=0;
}
while(ne!=n-1)
{
min=9999;
for(i=1;i<=n;i++)
{
for(j=1;j<=n;j++)
{
if(c[i][j]<min)
{
min=c[i][j];
u=a=i;
v=b=j;
}
}
```

public int __cdecl printf (const char * __restrict__ _Format, ...)

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```cpp
22    kruskals();
23    getch();
24    return 0;
25    }
26    void kruskals()
27    {
28    int i,j,u,v,a,b,min;
29    int ne=0,mincost=0;
30    int parent[10];
31    for(i=1;i<=n;i++)
32    {
33    parent[i]=0;
34    }
35    while(ne!=n-1)
36    {
37    min=9999;
38    for(i=1;i<=n;i++)
39    {
40    for(j=1;j<=n;j++)
41    {
42    if(c[i][j]<min)
43    {
44    min=c[i][j];
45    u=a=i;
46    v=b=j;
47    }
48    }
49    }
50    while(parent[u]!=0)
51    {
52    u=parent[u];
53    }
54    while(parent[v]!=0)
55    {
56    v=parent[v];
57    }
58    if(u!=v)
59    {
60    printf("\n%d----->%d=%d\n",a,b,min);
61    parent[v]=u;
62    ne=ne+1;
63    mincost=mincost+min;
64    }
65    c[a][b]=c[b][a]=9999;
66    }
67    printf("\nmincost=%d",mincost);
68    }
```

```
enter the no. of vertices:        6

enter the cost matrix:
9999 3 9999 9999 6 5
3 9999 1 9999 9999 4
9999 1 9999 6 9999 4
9999 6 6 9999 8 5
6 9999 9999 8 9999 2
5 4 4 5 2 9999

2----->3=1

5----->6=2

1----->2=3

2----->6=4

4----->6=5

mincost=15
```