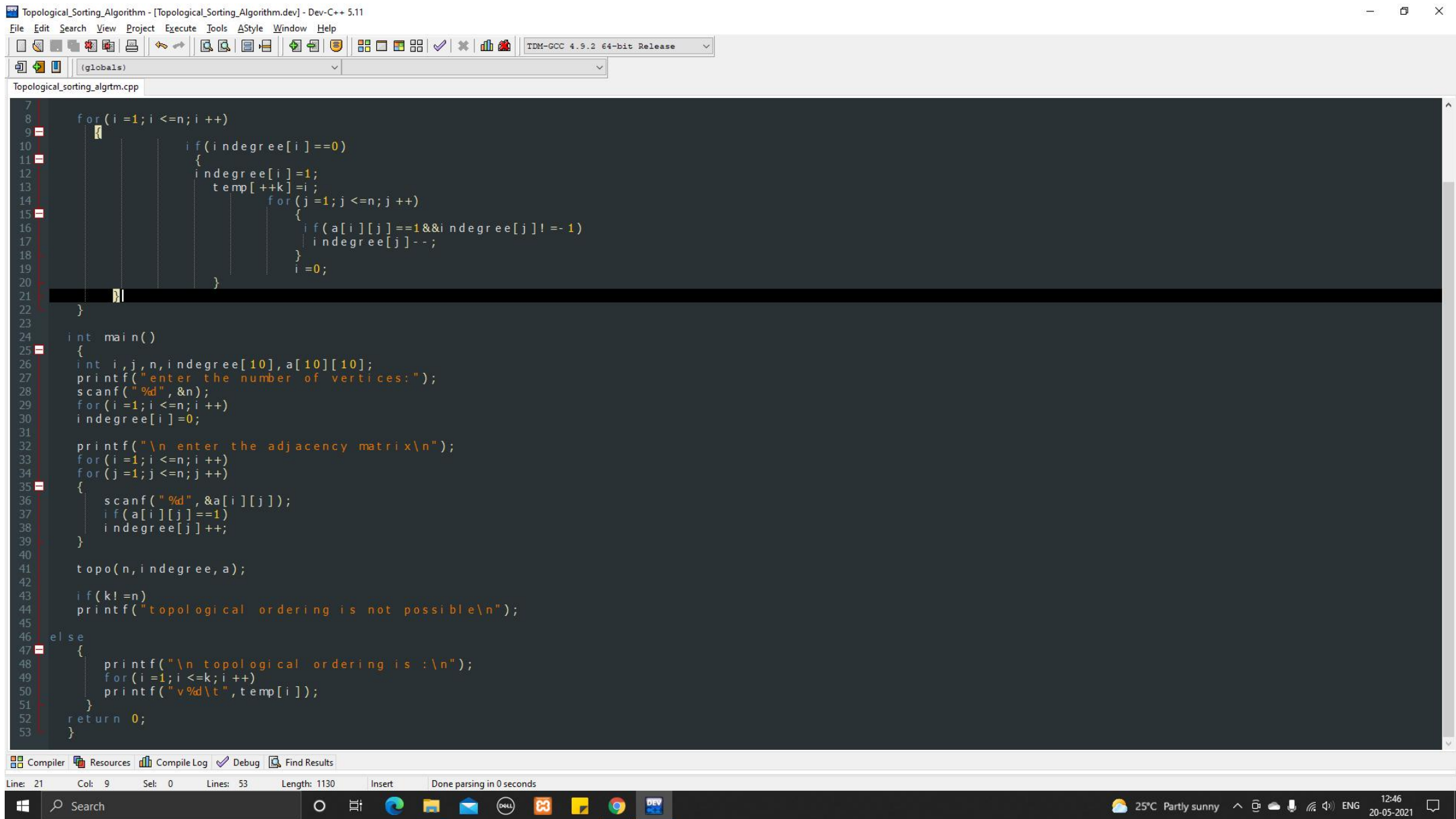


```
1 #include<stdio.h>
2 int temp[10],k=0;
3
4 void topo(int n,int indegree[10],int a[10][10])
5 {
6     int i,j;
7
8     for(i=1;i<=n;i++)
9     {
10         if(indegree[i]==0)
11         {
12             indegree[i]=1;
13             temp[++k]=i;
14             for(j=1;j<=n;j++)
15             {
16                 if(a[i][j]==1&&indegree[j]!=1)
17                     indegree[j]--;
18             }
19             i=0;
20         }
21     }
22 }
23
24 int main()
25 {
26     int i,j,n,indegree[10],a[10][10];
27     printf("enter the number of vertices:");
28     scanf("%d",&n);
29     for(i=1;i<=n;i++)
30         indegree[i]=0;
31
32     printf("\n enter the adjacency matrix\n");
33     for(i=1;i<=n;i++)
34         for(j=1;j<=n;j++)
35         {
36             scanf("%d",&a[i][j]);
37             if(a[i][j]==1)
38                 indegree[j]++;
39         }
40
41     topo(n,indegree,a);
42
43     if(k!=n)
44         printf("topological ordering is not possible\n");
45
46     else
47     {
48         printf("\n topological ordering is : \n");
```



C:\Users\Admin\OneDrive\Desktop\4th sem\ADA lab\ADA lab programs\Topological Sorting Algorithm\Topological_Sorting_Algorithm.exe

enter the number of vertices:5

enter the adjacency matrix

```
7 0 1 0 0 1
8 0 0 1 0 0
9 0 0 0 1 0
10 0 0 0 0 0
11 0 0 0 1 0
```

topological ordering is :

```
12 v1      v2      v3      v5      v4
13 -----
14
```

```
15 Process exited after 42.73 seconds with return value 0
16 Press any key to continue . . .
```

```
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32 printf("\n enter the adjacency matrix\n");
33 for(i=1; i <=n; i++)
34 for(j=1; j <=n; j++)
35 {
36     scanf("%d", &a[i][j]);
37     if(a[i][j]==1)
38         indegree[j]++;
39 }
40
41 topo(n, indegree, a);
42
43 if(k!=n)
44 printf("topological ordering is not possible\n");
45
```

Compiler Resources Compile Log Debug Find Results Close

Abort Compilation

☐ Shorten compiler paths

Compilation results...

```
-----
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\Admin\OneDrive\Desktop\4th sem\ADA lab\ADA lab programs\Topological Sorting Algorithm\Topological_Sorting_Algorithm.exe
- Output Size: 129.8701171875 KiB
- Compilation Time: 0.06s
```

Line: 21 Col: 9 Sel: 0 Lines: 53 Length: 1130 Insert Done parsing in 0 seconds