

ain.c

```
1  #include<stdio.h>
2  #include<conio.h>
3  int a[10][10],n,indegere[10];
4  void find_indegere()
5  { int j,i,sum;
6  for(j=0;j<n;j++)
7  {
8  sum=0;
9  for(i=0;i<n;i++)
10 sum+=a[i][j];
11 indegre[j]=sum;
12 }
13 }
14 void topology()
15 {
16 int i,u,v,t[10],s[10],top=-1,k=0;
17 find_indegere();
18 for(i=0;i<n;i++)
19 {
20 if(indegere[i]==0) s[++top]=i;
21 }
22 while(top!=-1)
```

input

main.c

```
23 {
24     u=s[top--];
25     t[k++]=u;
26     for(v=0;v<n;v++)
27     {
28         if(a[u][v]==1)
29         {
30             indegre[v]--;
31             if(indegre[v]==0) s[++top]=v;
32         }
33     }
34 }
35 printf("The topological Sequence is:\n");
36 for(i=0;i<n;i++)
37     printf("%d ",t[i]);
38 }
39 void main()
40 {
41     int i,j;
42     printf("Enter number of vertices:");
43     scanf("%d",&n);
44     printf("\nEnter the adjacency matrix:\n");
45     for(i=0;i<n;i++)
46     {
47         for(j=0;j<n;j++)
48             scanf("%d",&a[i][j]);
49     }
50     topology();
51     getch();
}
```


Enter number of vertices:5

Enter the adjacency matrix:

0 1 0 1 0

0 0 1 1 0

0 0 0 0 0

0 0 1 0 1

0 0 0 0 0

The topological Sequence is:

< 0 1 3 4 2

...Program finished with exit code 255

Press ENTER to exit console.

```

* #include <stdio.h>
#include <conio.h>
int a[10][10], n, indegree[10];
void find-indegree()
{
    int j, i, sum;
    for (j = 0; j < n; j++)
    {
        sum = 0;
        for (i = 0; i < n; i++)
            sum += a[i][j];
        indegree[j] = sum;
    }
}
void topology()
{
    int i, v, u, t[10], s[10], top = -1, k = 0;
    find-indegree();
    for (i = 0; i < n; i++)
    {
        if (indegree[i] == 0) s[++top] = i;
    }
    while (top != -1)
    {
        u = s[top--];
        t[k++] = u;
        for (v = 0; v < n; v++)

```

```

    if (indegree[v] == 1)
    {
        indegree[v]--;
        if (indegree[v] == 0) s[++top] = v;
    }
}

printf("The topological sequence is : \n");
for (i = 0; i < n; i++)
    printf("%d ", t[i]);
}

void main ()
{
    int i, j;
    printf("Enter the no. of vertices: ");
    scanf("%d", &n);

    printf("Enter the adjacency matrix: ");
    for (i = 0; i < n; i++)
    {
        for (j = 0; j < n; j++)
            scanf("%d", &a[i][j]);
    }
    topology();
    getch();
}

```