

Start here x FLOYD'S ALGORITHM.c x

```
1  #include <stdio.h>
2  int a[10][10],d[10][10],n;
3
4  int min(int a,int b)
5  {
6      return (a<b?a:b);
7  }
8
9  void floyd()
10 {
11     int i,j,k;
12     for (i=0;i<n;i++)
13     {
14         for (j=0;j<n;j++)
15         {
16             d[i][j]=a[i][j];
17         }
18     }
19     for (k=0;k<n;k++)
20     {
21         for (i=0;i<n;i++)
22         {
23             for (j=0;j<n;j++)
24             {
25                 d[i][j]=min(d[i][j],d[i][k]+d[k][j]);
26             }
27         }
28     }
29 }
30
31 int main()
32 {
33     int i,j;
34     printf("Enter the number of vertices:\n");
35     scanf("%d",&n);
36     printf("Enter the adjacency matrix:\n");
37     for (i=0;i<n;i++)
38     {
39         for (j=0;j<n;j++)
40         {
41             scanf("%d",&a[i][j]);
```

```
16         d[i][j]=a[i][j];
17     }
18 }
19 for (k=0;k<n;k++)
20 {
21     for (i=0;i<n;i++)
22     {
23         for (j=0;j<n;j++)
24         {
25             d[i][j]=min(d[i][j],d[i][k]+d[k][j]);
26         }
27     }
28 }
29 }
30
31 int main()
32 {
33     int i,j;
34     printf("Enter the number of vertices:\n");
35     scanf("%d",&n);
36     printf("Enter the adjacency matrix:\n");
37     for (i=0;i<n;i++)
38     {
39         for (j=0;j<n;j++)
40         {
41             scanf("%d",&a[i][j]);
42         }
43     }
44     floyd();
45     printf("The distance matrix:\n");
46     for (i=0;i<n;i++)
47     {
48         for (j=0;j<n;j++)
49         {
50             printf("%d ",d[i][j]);
51         }
52         printf("\n");
53     }
54     return 0;
55 }
```

 "C:\web developement(html.css.js)\FLOYD'S ALGORITHM.exe"

Enter the number of vertices:

4

Enter the adjacency matrix:

0 1 0 0

0 0 0 1

0 0 0 0

1 1 1 1

The distance matrix:

0 0 0 0

0 0 0 0

0 0 0 0

1 1 1 1

Process returned 0 (0x0) execution time : 32.680 s

Press any key to continue.