```c
#include<stdio.h>
#include<conio.h>
void floyds();
int min(int,int);
int c[10][10], d[10][10], i,j,k,n;

int main()
{
 printf("Enter the No: of vertices :");
 scanf("%d",&n);
 printf("Enter the Cost Adjacency matrix :\n");
 for(i=1;i<=n;i++)
 {
   for(j=1;j<=n;j++)
   {
   scanf("%d",&c[i][j]);
   }
 }
 floyds();
 printf("\nDistance Matrix :\n");
 for(i=1;i<=n;i++)
 {
   for(j=1;j<=n;j++)
   {
   printf("%d  ",d[i][j]);
   }
   printf("\n");
 }
 return 0;
}
 int min(int a,int b)
{
    if(a<b)
    {
        return(a);
    }
    else
    {
```

```c
26      }
27       printf("\n");
28      }
29     return 0;
30    }
31    int min(int a,int b)
32    {
33          if(a<b)
34          {
35              return(a);
36          }
37          else
38          {
39              return(b);
40          }
41    }
42    void floyds()
43    {
44     for(i=1;i<=n;i++)
45     {
46      for(j=1;j<=n;j++)
47      {
48       d[i][j]=c[i][j];
49      }
50     }
51     for(k=1;k<=n;k++)
52     {
53      for(i=1;i<=n;i++)
54      {
55       for(j=1;j<=n;j++)
56       {
57        d[i][j]=min(d[i][j], d[i][k]+d[k][j]);
58       }
59      }
60     }
61    }
62
```

```
C:\WINDOWS\SYSTEM32\cmd.exe

Enter the No: of vertices :4
Enter the Cost Adjacency matrix :
0 999 3 999
2 0 999 999
999 7 0 1
6 999 999 0

Distance Matrix :
0   10   3   4
2   0    5   6
7   7    0   1
6   16   9   0


------------------
(program exited with code: 0)

Press any key to continue . . . _
```