

```

1  #include<stdio.h>
2  #include<conio.h>
3  #include<process.h>
4  void warshalls();
5  int a[10][10],p[10][10];
6  int i,j,k,n;
7
8  int main()
9  {
10     printf("Enter the No: of vertices :");
11     scanf("%d",&n);
12     printf("Enter the Adjacency matrix :\n");
13     for(i=1;i<=n;i++)
14     {
15         for(j=1;j<=n;j++)
16         {
17             scanf("%d",&a[i][j]);
18         }
19     }
20     warshalls();
21
22     printf("Path Matrix :\n");
23     for(i=1;i<=n;i++)
24     {
25         for(j=1;j<=n;j++)
26         {
27             printf("%d ",p[i][j]);
28         }
29         printf("\n");
30     }
31     return 0;
32 }
33
34 void warshalls()
35 {
36     for(i=1;i<=n;i++)
37     {
38         for(j=1;j<=n;j++)

```

```

20 warshalls();
21
22 printf("Path Matrix :\n");
23 for (i=1;i<=n;i++)
24 {
25     for (j=1;j<=n;j++)
26     {
27         printf("%d ",p[i][j]);
28     }
29     printf("\n");
30 }
31 return 0;
32 }
33
34 void warshalls()
35 {
36     for (i=1;i<=n;i++)
37     {
38         for (j=1;j<=n;j++)
39         {
40             p[i][j]=a[i][j];
41         }
42     }
43     for (k=1;k<=n;k++)
44     {
45         for (i=1;i<=n;i++)
46         {
47             for (j=1;j<=n;j++)
48             {
49                 if((p[i][j]!=1)&&(p[i][k]==1 && p[k][j]==1))
50                     p[i][j]=1;
51             }
52         }
53     }
54 }
55
56

```

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

Enter the No: of vertices :4

Enter the Adjacency matrix :

0 1 0 0

0 0 0 1

0 0 0 0

1 0 1 0

Path Matrix :

1 1 1 1

1 1 1 1

0 0 0 0

1 1 1 1

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(program exited with code: 0)

Press any key to continue . . . \_