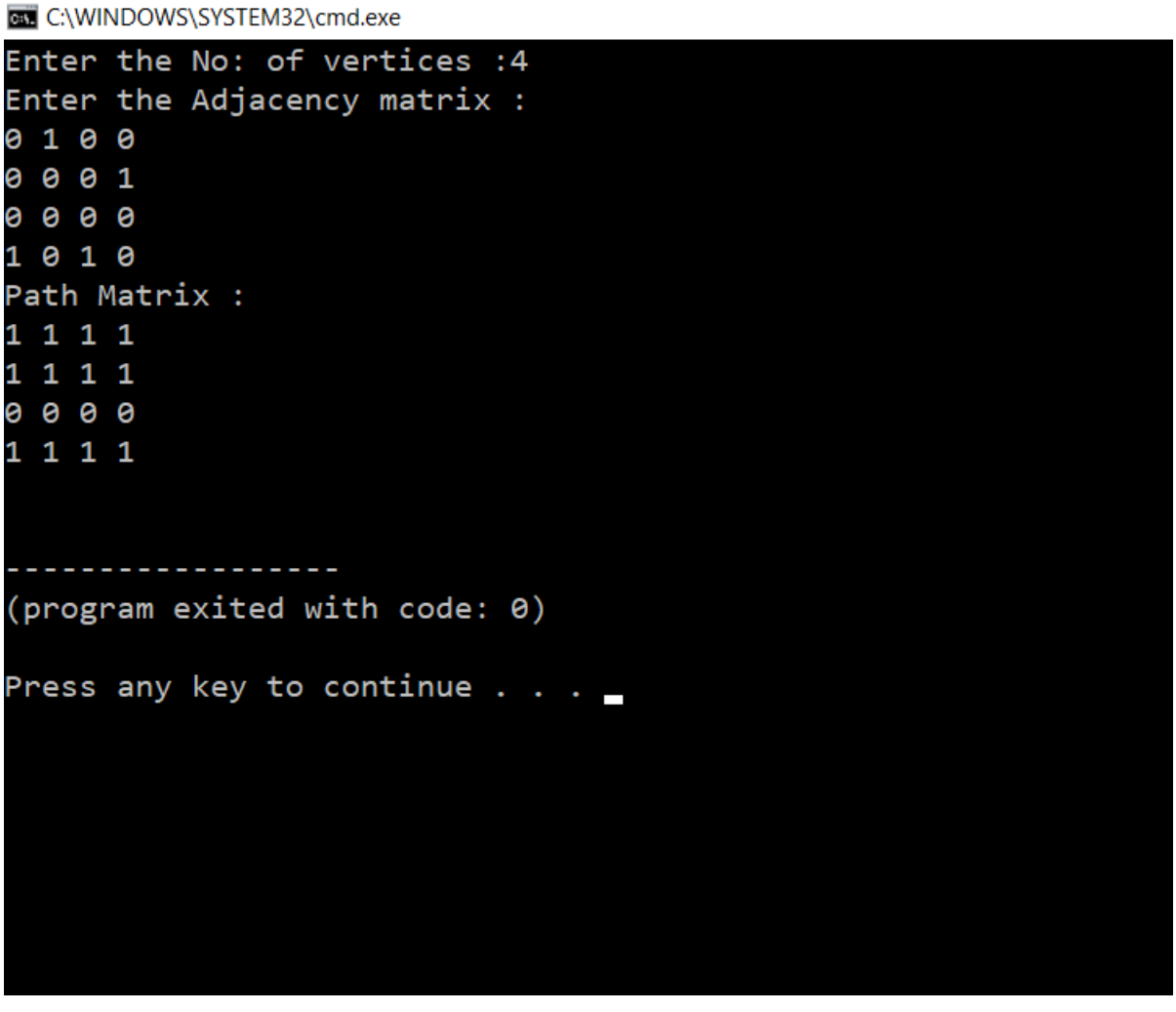
```c
#include<stdio.h>
#include<conio.h>
#include<process.h>
void warshalls();
int a[10][10],p[10][10];
int i,j,k,n;

int main()
{
 printf("Enter the No: of vertices :");
 scanf("%d",&n);
 printf("Enter the Adjacency matrix :\n");
 for(i=1;i<=n;i++)
{
 for(j=1;j<=n;j++)
{
 scanf("%d",&a[i][j]);
}
}
warshalls();

 printf("Path Matrix :\n");
 for(i=1;i<=n;i++)
{
 for(j=1;j<=n;j++)
{
 printf("%d ",p[i][j]);
}
printf("\n");
}
 return 0;
}

void warshalls()
{
 for(i=1;i<=n;i++)
{
 for(j=1;j<=n;j++)
```

```
warshalls();

 printf("Path Matrix :\n");
 for(i=1;i<=n;i++)
{
 for(j=1;j<=n;j++)
{
 printf("%d ",p[i][j]);
}
printf("\n");
}
 return 0;
}

void warshalls()
{
 for(i=1;i<=n;i++)
{
 for(j=1;j<=n;j++)
{
 p[i][j]=a[i][j];
}
}
 for(k=1;k<=n;k++)
{
 for(i=1;i<=n;i++)
{
 for(j=1;j<=n;j++)
{
 if((p[i][j]!=1)&&(p[i][k]==1 && p[k][j]==1))
 p[i][j]=1;
}
}
}
}
```


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

(program exited with code: 0)
Press any key to continue . . .