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9  #include<stdio.h>
10 #include<conio.h>
11 int n,a[10][10],p[10][10];
12 void warshall(int n,int a[10][10],int p[10][10]){
13     int i,j,k;
14     for(i=0;i<n;i++)
15         for(j=0;j<n;j++)
16             p[i][j]=a[i][j];
17     for(k=0;k<n;k++)
18         for(i=0;i<n;i++)
19             for(j=0;j<n;j++)
20                 if((p[i][j]==0) && (p[i][k]==1 && p[k][j]==1))
21                     p[i][j]=1;
22 }
23 void main(){
24     int i,j;
25     printf("Enter the number of vertices:\n");
26     scanf("%d",&n);
27     printf("Enter the adjacency matrix:\n");
28     for(i=0;i<n;i++){
29         for(j=0;j<n;j++){
30             scanf("%d",&a[i][j]);
31         }
32     }
33     warshall(n,a,p);
34     printf("Transitive closure:\n");
35     for(i=0;i<n;i++){
36         for(j=0;j<n;j++){
37             printf("%d\t",p[i][j]);
38         }

```

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14     for(i=0;i<n;i++)
15         for(j=0;j<n;j++)
16             p[i][j]=a[i][j];
17     for(k=0;k<n;k++)
18         for(i=0;i<n;i++)
19             for(j=0;j<n;j++)
20                 if((p[i][j]==0) && (p[i][k]==1 && p[k][j]==1))
21                     p[i][j]=1;
22 }
23 void main(){
24     int i,j;
25     printf("Enter the number of vertices:\n");
26     scanf("%d",&n);
27     printf("Enter the adjacency matrix:\n");
28     for(i=0;i<n;i++){
29         for(j=0;j<n;j++){
30             scanf("%d",&a[i][j]);
31         }
32     }
33     warshall(n,a,p);
34     printf("Transitive closure:\n");
35     for(i=0;i<n;i++){
36         for(j=0;j<n;j++){
37             printf("%d\t",p[i][j]);
38         }
39         printf("\n");
40     }
41     getch();
42 }
43

```

```
input
Enter the number of vertices:
4
Enter the adjacency matrix:
1 1 0 1
0 0 1 1
0 1 0 1
0 0 1 0
Transitive closure:
1      1      1      1
0      1      1      1
0      1      1      1
0      1      1      1

...Program finished with exit code 0
Press ENTER to exit console.
```