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#include<stdio.h>

#include<conio.h>

int a[20][20],reach[20],n;

void dfs(int v) {
    int i;
    reach[v]=1;
    for (i=1;i<=n;i++)
        if(a[v][i] && !reach[i]) {
            printf("\n %d->%d",v,i);
            dfs(i);
        }
    }

int main() {
    int i,j,count=0;
    printf("\n Enter number of vertices:");
    scanf("%d",&n);
    for (i=1;i<=n;i++) {
        reach[i]=0;
        for (j=1;j<=n;j++)
            a[i][j]=0;
    }
    printf("\n Enter the adjacency matrix:\n");
    for (i=1;i<=n;i++)
        for (j=1;j<=n;j++)
            scanf("%d",&a[i][j]);
    dfs(1);
    printf("\n");
    for (i=1;i<=n;i++) {
        if(reach[i])
            count++;
    }
}

```

```
if(count==n)
printf("\n Graph is connected"); else
printf("\n Graph is not connected");
```

```
Enter number of vertices:2
Enter the adjacency matrix:
2
3
5
6
1->2
Graph is connected
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Process exited after 15.59 seconds with return value 0
Press any key to continue . . . █
}
```