CS255

CODE

```c
#include<stdio.h>
#include<conio.h>
int a[10][10], vis[10], n;
void dfs(int v) {
    int i;
    vis[v] = 1;
    for (i = 1; i <= n; i++)
        if (a[v][i] && !vis[i]) {
            printf("\n %d->%d", v, i);
            dfs(i);
        }
}
int main(int argc, char **argv) {
    int i, j, count = 0;
    printf("\n Enter number of vertices:");
    scanf("%d", &n);
    for (i = 1; i <= n; i++) {
        vis[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]);
```

```c
    dfs(1);

    printf("\n");

    for (i = 1; i <= n; i++) {

        if (vis[i])

            count++;

    }

    if (count == n)

        printf("\n Graph is connected");

    else

        printf("\n Graph is not connected");

    return 0;

}
```

OUTPUT

```
 Enter number of vertices:3

 Enter the adjacency matrix:
0
1
1
1
0
9
1
9
0


 1 → 2
 2 → 3


 Graph is connected
Process returned 0 (0x0)   execution time : 21.678 s
Press any key to continue.
```