Write a program to check whether given graph is connected or not using DFS method.

```c
#include <stdio.h>

#define MAX 10

int visited[MAX];


void dfs(int G[MAX][MAX],int n,int st){

    visited[st]=1;

    printf("%d\t",st);


    for(int i=0;i<n;i++){

        if(G[st][i]==1 && visited[i]!=1){

            dfs(G,n,i);

        }


    }


}


int main(){

    int st,n;

    int G[MAX][MAX];

    printf("enter no of vertices\n");

    scanf("%d",&n);


    printf("enter adjacency matrix:\n");

    for(int i=0;i<n;i++){

        for(int j=0;j<n;j++){

            scanf("%d",& G[i][j]);
```

```c
        }
    }


    for(int i=0;i<n;i++){

        visited[i]=0;

    }


    printf("enter starting vertex\n");

    scanf("%d",&st);


    dfs(G,n,st);


    int connected=1;

    for(int i=0;i<n;i++){

        if(visited[i]==0){

            connected=0;

            break;

        }

    }


    if(connected){

        printf("graph is connected\n");

    }

    else{

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

    }
```

return 0;

}


Output:

```
enter no of vertices
5
enter adjacency matrix:
0 1 1 0 0
1 0 0 1 0
1 0 0 1 1
0 1 1 0 0
0 0 1 0 0
enter starting vertex
0
0       1       3       2       4       _ graph is connected
```