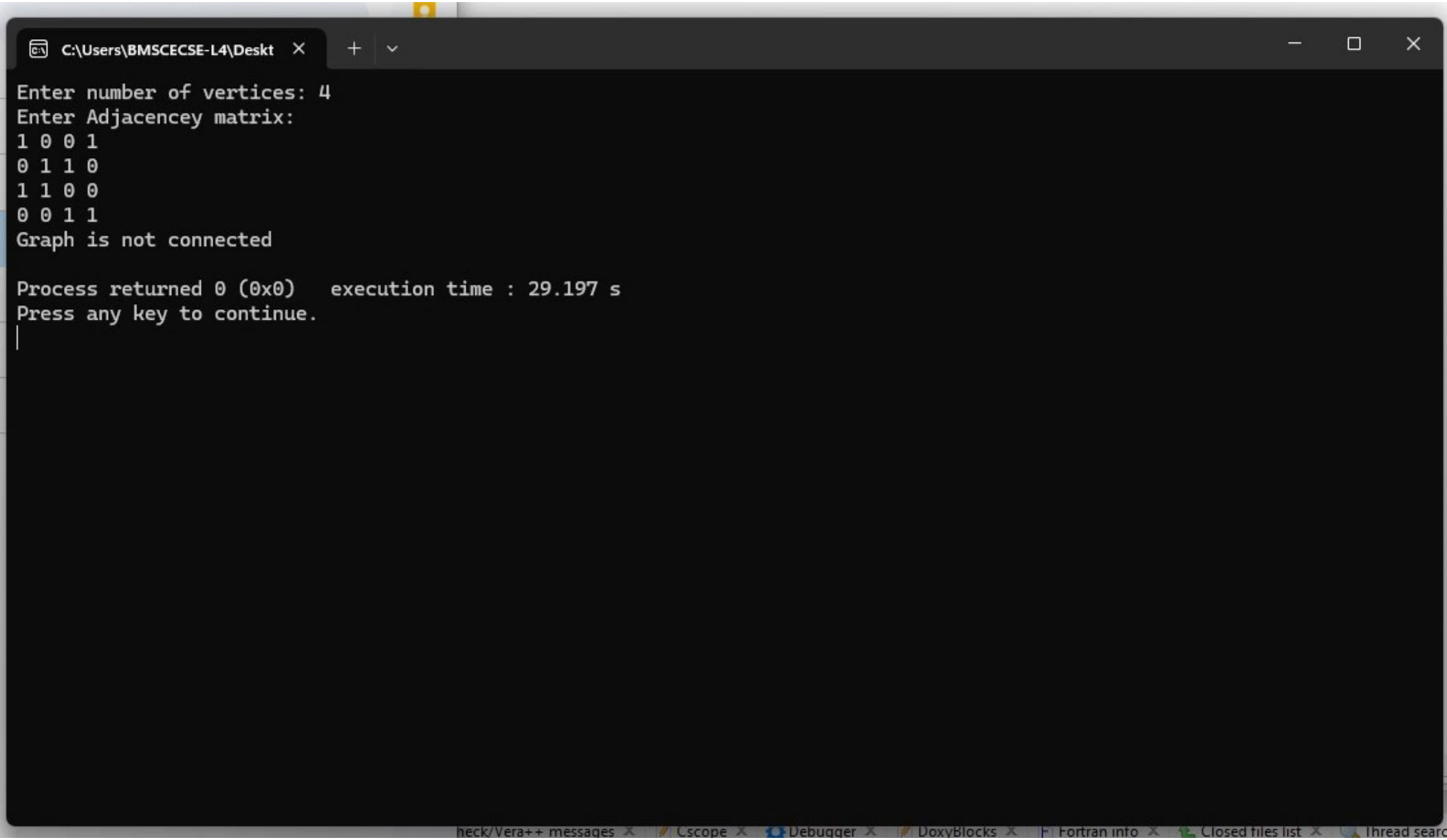
Start here | dfs.c

```c
#include<stdio.h>
#define MAX 20

int stack[MAX], top = -1;
int visited[MAX];

void push(int v){
    stack[++top] = v;
}

int pop(){
if(top == -1) return -1;
return stack[top--];
}
void dfs_stack(int adj[MAX][MAX], int n, int start){
  int i,v;
  for(i = 0;i < n;i++){
  visited[i] = 0;
  }
  push(start);
  while( top != -1){
    v= pop();

    if(!visited[v]){
        visited[v] = -1;
    }
    for(i = n-1;i >0;i--){
        if(adj[v][i] == 1 && !visited[i]){
            push(i);
        }
    }
  }
}

int main(){
    int n, adj[MAX][MAX];
    int i,j;

    printf("Enter number of vertices: ");
    scanf("%d",&n);
    printf("Enter Adjacencey matrix: \n");
    for(i=0;i<n;i++)
     for(j=0;j<n;j++)
       scanf("%d",&adj[i][j]);

    dfs_stack(adj,n,0);

    int connected = 0;
    for(i=0; i<n;i++){
     if(!visited[i]){
         connected = 0;
         break;
    }
    }

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

}
```

Logs & others

SE-L4\Desktop\1bm24cs176\dfs.c | C/C++ | Windows (CR+LF) | WINDOWS-1252 | Line 29, Col 21, Pos 511 | Insert | Read/Write | default

ENG IN 11:34:49 08-12-2025


C:\Users\BMSCECSE-L4\Deskt
Enter number of vertices: 4
Enter Adjacencey matrix:
1 0 0 1
0 1 1 0
1 1 0 0
0 0 1 1
Graph is not connected
Process returned 0 (0x0) execution time : 29.197 s
Press any key to continue.