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**Program Name: To implementation of DFS using Python**

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def dfs(graph,start,goal):

visited=[]

stack=[]

stack.append(start)

visited.append(start)

print('The path traversed is :')

while stack:

element=stack.pop()

print(element,"")

for neighbour in graph[element]:

if neighbour not in visited:

stack.append(neighbour)

visited.append(neighbour)

if(element==goal):

print("\n goal node found")

else:

print("\n goal node not found")

graph={

'A':['C','B'],

'B':['E', 'D'],

'C':['G', 'F'],

'D':[],

'E':[],

'F':['H'],

'G':[],

'H':[]

}

start='A'

goal= 'G'

dfs(graph,start,goal)

**OUTPUT:**

**C:\Users\comp\PycharmProjects\pythonPROJECTOM\venv\Scripts\python.exe "C:/Users/comp/PycharmProjects/pythonPROJECTOM/venv/depth first search.py"**

**The path traversed is :**

**A**

**B**

**D**

**E**

**C**

**F**

**H**

**G**

**goal node found**

**Process finished with exit code 0**