```
############################################################
#                                                          #
#                       EXPERIMENT 2                       #
#                     Depth First Search                   #
#                   Nathan Cordeiro 22co09                 #
#                                                          #
############################################################

graph={
'A':['B','C'],
'B':['D','E'],
'C':['F','G'],
'D':[],
'E':[],
'F':[],
'G':[],
}
start=input("enter start node:")
def dfs_traversal(graph):
 visited=[]
 stack=[start]
 while stack:
   node=stack.pop()
   if node not in visited:
     visited.append(node)
     neighbours=graph[node]
   for i in neighbours:
     stack.append(i)
 return visited
print("\nHere's the node of the graph by depth first search:",dfs_traversal(graph))
```

OUTPUT:

```
enter start node:A

Here's the node of the graph by depth first search: ['A', 'C', 'G', 'F', 'B', 'E', 'D']
```