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from collections import defaultdict

class Graph:

    def __init__(self):
        self.graph = defaultdict(list)

    def addEdge(self,u,v):
        self.graph[u].append(v)

    def DFSUtil(self,v,visited):
        visited[v] = True
        print(v, end = "")

        for i in self.graph[v]:
            if visited[i] == False:
                self.DFSUtil(i, visited)

    def DFS(self,v):
        visited =
[False]*(len(self.graph))
        self.DFSUtil(v,visited)

g = Graph()
g.addEdge(0,1)
g.addEdge(0,2)
g.addEdge(1,2)
g.addEdge(2,0)
g.addEdge(2,3)
g.addEdge(3,3)
print("Following is Depth First
Search""(starting from vertex 2)")
g.DFS(2)

```