

Name: Hitesh Choudhary

Prn no. 20200802146

Depth -First Search

Code:

```
graph = {  
    '5' : ['3', '7'],  
    '3' : ['2', '4'],  
    '7' : ['8'],  
    '2' : [],  
    '4' : ['8'],  
    '8' : []  
}  
  
visited = set() # Set to keep track of visited nodes of graph.  
  
def dfs(visited, graph, node): #function for dfs  
    if node not in visited:  
        print (node)  
        visited.add(node)  
        for neighbour in graph[node]:  
            dfs(visited, graph, neighbour)  
  
# Driver Code  
print("Following is the Depth-First Search")  
dfs(visited, graph, '5')
```

Output:

```
Following is the Depth-First Search
```

```
5
```

```
3
```

```
2
```

```
4
```

```
8
```

```
7
```