

## Program

```
graph = {  
    '5': ['3','7'],  
    '3': ['2', '4'],  
    '7': ['8'],  
    '2': [],  
    '4': ['8'],  
    '8': []  
}  
def dfs(graph,start):  
    visited = set()  
    stack = [start]  
    while stack:  
        node = stack.pop()  
        if node not in visited:  
            print(node)  
            visited.add(node)  
            for neighbor in graph[node]:  
                if neighbor not in visited:  
                    stack.append(neighbor)  
    print("Following is the Depth-First Search")  
    dfs(graph, '5')
```

**Output:**

Following is the Depth-First Search

5

3

2

4

8

7

**R**