

WRITE A PROGRAM TO IMPLEMENT DFS

AIM:

To write a python program to implement DFS(Depth First Search)

PROGRAM:

```
def dfs(graph, node):  
    print(node)  
    visited = set()  
  
    def dfs_recursive(node):  
        visited.add(node)  
        for neighbor in graph[node]:  
            if neighbor not in visited:  
                print(neighbor)  
                dfs_recursive(neighbor)  
  
    dfs_recursive(node)  
  
graph = {  
    'A': ['B', 'C'],  
    'B': ['D', 'E'],  
    'C': ['F'],  
    'D': [],  
    'E': ['F'],  
    'F': [],  
}  
  
dfs(graph, 'A')
```

OUTPUT:

```
===== RESTART: C:/Users/Welco  
A  
B  
D  
E  
F  
C  
>>|
```

RESULT:

The program was executed successfully and result is obtained.