

Program 8

DFS

AIM :

To Create a python program to implement DFS

PROGRAM :

```
def dfs(graph, node):
    print(node)
    visited = set()

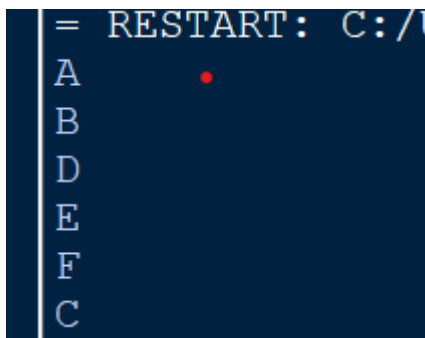
    def dfs_recursive(node):
        visited.add(node)
        for neighbor in graph[node]:
            if neighbor not in visited:
                print(neighbor)
                dfs_recursive(neighbor)

    dfs_recursive(node)

graph = {
    'A': ['B', 'C'],
    'B': ['D', 'E'],
    'C': ['F'],
    'D': [],
    'E': ['F'],
    'F': [],
}

dfs(graph, 'A')
```

OUTPUT:

A terminal window with a dark blue background and light blue text. The text shows the output of a DFS traversal starting from node 'A'. The output is: A, B, D, E, F, C. A red cursor is visible next to the letter 'A' on the second line.

```
= RESTART: C:/U
A
B
D
E
F
C
```

RESULT:

The Program has successfully been executed.

