

# Depth First Search Algorithm

## Aim:

To implement Depth First Search Algorithm

## Code:

```
def dfs(graph, start_node):
    visited = set()
    stack = [start_node]
    while stack:
        node = stack.pop()
        if node not in visited:
            visited.add(node)
            print(node, end=" ")
            neighbors = graph.get(node, [])
            stack.extend(reversed(neighbors))

    print()

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

dfs(graph, 'A')
```

## Output:

A B D F E C

## Result:

Depth First Search Algorithm implemented successfully.