DLS

In [1]:
```python
def dls(graph, start, limit):
    visited = set()
    stack = [(start, 0)]

    while stack:
        vertex, depth = stack.pop()
        if vertex not in visited:
            print(vertex, end=" ")
            visited.add(vertex)

            if depth < limit:
                for neighbor in reversed(graph[vertex]):
                    if neighbor not in visited:
                        stack.append((neighbor, depth + 1))

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

dls(graph, 'A', 2)
```

```
A B D E C F
```