**8. Write the python program to implement DFS.**

**Program:**

def dfs(graph, start):

visited = set()

stack = [start]

while stack:

vertex = stack.pop()

if vertex not in visited:

print(vertex, end=' ')

visited.add(vertex)

stack.extend(reversed(graph[vertex])) # reverse to maintain left-to-right order

# Example graph (as adjacency list)

graph = {

'A': ['B', 'C'],

'B': ['D', 'E'],

'C': ['F'],

'D': [],

'E': ['F'],

'F': []

}

# Start DFS from node 'A'

dfs(graph, 'A')

**output:**

**A screenshot of a computer

AI-generated content may be incorrect.**