NAME : J.SAI RAJARAM   DATE:07.04.2025
REG.NO: 241801242   EX NAME: DFS
EX NO: 2

```python
warehouse_graph = {

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

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

    'C': ['F'],

    'D': [],

    'E': ['F'],

    'F': []

}


def dfs(graph, start, goal, visited=None, path=None):

    if visited is None:

        visited = set()

    if path is None:

        path = []


    visited.add(start)

    path.append(start)


    if start == goal:

        return path


    for neighbor in graph[start]:

        if neighbor not in visited:

            result = dfs(graph, neighbor, goal, visited, path[:])

            if result:

                return result
```

NAME : J.SAI RAJARAM   DATE:07.04.2025
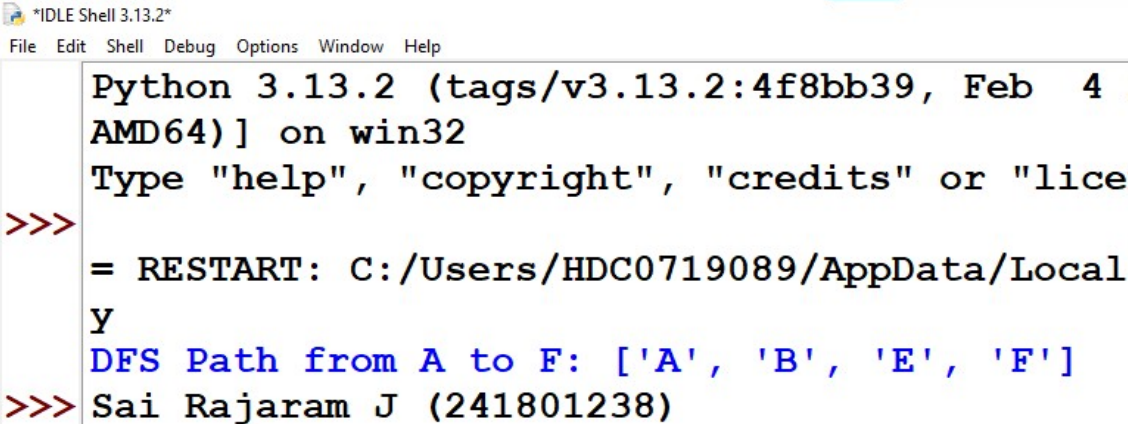REG.NO: 241801242   EX NAME: DFS
EX NO: 2

 return None

start_node = 'A'

goal_node = 'F'

path_found = dfs(warehouse_graph, start_node, goal_node)

print(f"DFS Path from {start_node} to {goal_node}: {path_found}")

```
*IDLE Shell 3.13.2*
File  Edit  Shell  Debug  Options  Window  Help

    Python 3.13.2 (tags/v3.13.2:4f8bb39, Feb  4
    AMD64)] on win32
    Type "help", "copyright", "credits" or "lice
>>>
    = RESTART: C:/Users/HDC0719089/AppData/Local
    y
    DFS Path from A to F: ['A', 'B', 'E', 'F']
>>> Sai Rajaram J (241801238)
```