**NAME: SIDDHARTH R**

**REG NO.:241801269 CLASS&DEPT: AI&DS-‘FD’ EX NO.:2**

**EX. NAME: IMPLEMENTATION OF DEPT FIRST SEARCH DATE: 07/04/2025**

IMPLEMENTATION OF DEPT FIRST SEARCH

**PROGRAM:**

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:

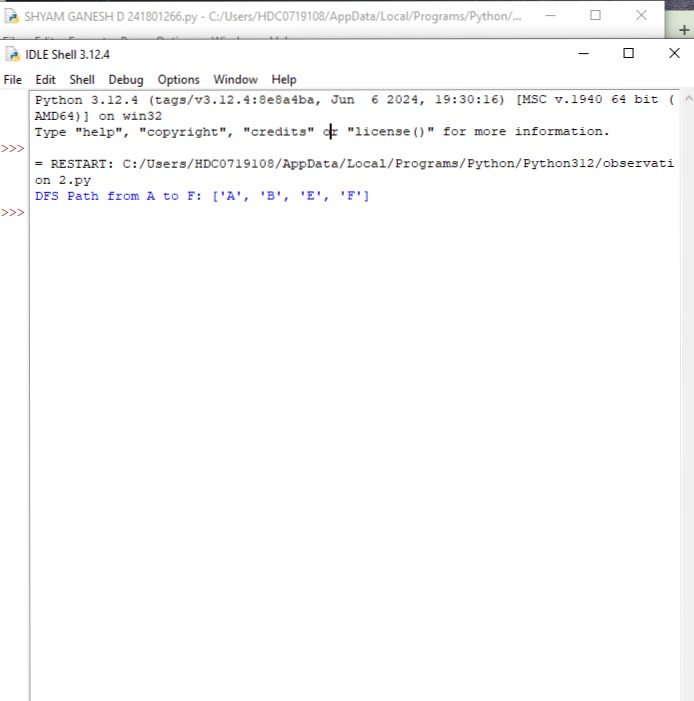
result = dfs(graph, neighbor, goal, visited, path[:]) if result:

return result 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}")

**OUTPUT:**

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