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## *IMPLEMENTATION OF DEPTH FIRST SEARCH*

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pyhotn.py - C:/Users/admin/AppData/Local/Programs/Python/Python310/pyhotn.py (3.10.8)

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```
warehouse_graph = {
    'A': ['C', 'E'],
    '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}")
```

```
Python 3.10.8 (tags/v3.10.8:aaaf517, Oct 11 2022, 16:50:30) [MSC v.1933 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: C:/Users/admin/AppData/Local/Programs/Python/Python310/pyhotn.py ==
DFS Path from A to F: ['A', 'B', 'E', 'F']
>>>
=== RESTART: C:/Users/admin/AppData/Local/Programs/Python/Python310/pyhotn.py ==
DFS Path from A to F: ['A', 'B', 'E', 'F']
>>>
=== RESTART: C:/Users/admin/AppData/Local/Programs/Python/Python310/pyhotn.py ==
DFS Path from A to F: ['A', 'C', 'F']
>>>
=== RESTART: C:/Users/admin/AppData/Local/Programs/Python/Python310/pyhotn.py ==
DFS Path from A to F: ['A', 'C', 'F']
>>> |
```