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EXP.NO: 2

EXP.NAME: DFS

```python
warehouse_graph = {
    'A': ['B', 'C'],
    'B': ['D', 'E'],
    'C': ['F'],
    'D': [],
    'E': ['F'],
    'F': []
}

# Function to perform DFS
def dfs(graph, start, goal, visited=None, path=None):
    if visited is None:
        visited = set()
    if path is None:
        path = []

    # Mark current node as visited and add to path
    visited.add(start)
    path.append(start)

    # If goal is found, return the path
    if start == goal:
        return path

    # Explore neighbors
    for neighbor in graph[start]:
        if neighbor not in visited:
            result = dfs(graph, neighbor, goal, visited, path[:])  # Use path[:] to copy path
            if result:  # Stop if a path is found
                return result

    return None  # No path found

# Example usage
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

```
DFS Path from A to F: ['A', 'B', 'E', 'F']

=== Code Execution Successful ===
```