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Class & sec: AI&DS-FD

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Ex no:2

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Exp :depth first search

Problem:

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[:]) # Use path[:] to copy 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}")

