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**BATCH:CSBS-R1**

**EXPERIMENT NO: 4.2**

**TOPIC: DEPTH FIRST SEARCH**

**CODE:**

def dfs(graph, start, visited=None):

    if visited is None:

        visited = set()

    visited.add(start)

    print(start)

    for next in graph[start] - visited:

        dfs(graph, next, visited)

    return visited

graph = {'0': set(['1', '2']),

         '1': set(['0', '3', '4']),

         '2': set(['0']),

         '3': set(['1']),

         '4': set(['2', '3'])}

dfs(graph, '0')

Text, application

Description automatically generated