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**REGISTRATION NO:RA1911042010035**

**BATCH:CSBS-R1**

**EXPERIMENT NO: 4.1**

**TOPIC:BREADTH FIRST SEARCH**

**BREADTH FIRST SEARCH**

**CODE:**

import collections

def bfs(graph, root):

    visited, queue = set(), collections.deque([root])

    visited.add(root)

    while queue:

        vertex = queue.popleft()

        print(str(vertex) + " ", end="")

        for neighbour in graph[vertex]:

            if neighbour not in visited:

                visited.add(neighbour)

                queue.append(neighbour)

if \_\_name\_\_ == '\_\_main\_\_':

    graph = {0: [1, 2], 1: [2], 2: [3], 3: [1, 2]}

    print("Breadth First Traversal: ")

    bfs(graph, 0)

**OUTPUT:**

Text

Description automatically generated