

2203a51485

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```
[1]: from queue import Queue

graph = {0: [1, 3], 1: [0, 2, 3], 2: [4, 1, 5], 3: [4, 0, 1], 4: [2, 3, 5], 5: [4, 2], 6: []}
print("The adjacency List representing the graph is:")
print(graph)

def bfs(graph, source):
    Q = Queue()
    visited_vertices = set()
    Q.put(source)
    visited_vertices.update({0})
    while not Q.empty():
        vertex = Q.get()
        print(vertex, end="-->")
        for u in graph[vertex]:
            if u not in visited_vertices:
                Q.put(u)
                visited_vertices.update({u})

print("BFS traversal of graph with source 0 is:")
bfs(graph, 0)
```

The adjacency List representing the graph is:

{0: [1, 3], 1: [0, 2, 3], 2: [4, 1, 5], 3: [4, 0, 1], 4: [2, 3, 5], 5: [4, 2], 6: []}

BFS traversal of graph with source 0 is:

0-->1-->3-->2-->4-->5-->

```
[2]: graph1 = {
    'A' : ['B', 'S'],
    'B' : ['A'],
    'C' : ['D', 'E', 'F', 'S'],
    'D' : ['C'],
    'E' : ['C', 'H'],
    'F' : ['C', 'G'],
    'G' : ['F', 'S'],
```

```
    'H' : ['E','G'],
    'S' : ['A','C','G']
}

def dfs(graph, node, visited):
    if node not in visited:
        visited.append(node)
        for k in graph[node]:
            dfs(graph,k, visited)
    return visited

visited = dfs(graph1,'D', [])
print(visited)
```

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['D', 'C', 'E', 'H', 'G', 'F', 'S', 'A', 'B']
```