

a program to implement bfs with the input of graph and the goal node to be searched, your output will show the path from the root node to goal node only

```
In [1]: def bfs(graph,start,search):
        explored = []
        queue = [start]
        found = 1
        while found:
            node = queue.pop(0)
            if(node == search):
                found = 0
            if node not in explored:
                explored.append(node)
                neighbours = graph[node]
            for neighbour in neighbours:
                queue.append(neighbour)
        print(explored)
```

```
In [2]: search = int(input("enter the number you want to search-"))
        graph = {1: [2, 3, 5],
                  2: [1,4, 5],
                  3: [1, 6, 7],
                  4: [2],
                  5: [1, 2,4],
                  6: [3],
                  7: [3]}
        bfs(graph,1,search)
```

```
enter the number you want to search-7
[1, 2, 3, 5, 4, 6, 7]
```

```
In [ ]:
```