

```
from collections import defaultdict
```

```
class Graph:
```

```
    def __init__(self):  
        self.graph = defaultdict(list)
```

```
    def addEdge(self,u,v):  
        self.graph[u].append(v)
```

```
    def BFS(self,s):  
        visited = [False] *  
(len(self.graph))  
        queue = []  
        queue.append(s)  
        visited[s] = True
```

```
        while queue:  
            s = queue.pop(0)  
            print(s, end="")
```

```
            for i in self.graph[s]:  
                if visited[i] == False:  
                    queue.append(i)  
                    visited[i] = True
```

```
g = Graph()  
g.addEdge(0,1)  
g.addEdge(0,2)  
g.addEdge(1,2)  
g.addEdge(2,0)  
g.addEdge(2,3)  
g.addEdge(3,3)  
print("Following is Breadth First  
Search""(starting from vertex 2)")  
g.BFS(2)
```