Experiment 7: Breadth-First Search

Aim:

Implement an Algorithm in Python for solving Breadth-First Search

Python Program:

```
from collections import deque
def bfs(graph, start):
 print(start)
 queue = deque([start])
 visited = set()
 while queue:
  node = queue.popleft()
  visited.add(node)
  for neighbor in graph[node]:
   if neighbor not in visited:
     print(neighbor)
     queue.append(neighbor)
# Example usage:
graph = {
 'A': ['B', 'C'],
 'B': ['D', 'E'],
 'C': ['F'],
 'D': [],
 'E': ['F'],
 'F': [],
bfs(graph, 'A')
```

Output:

A

В

C

D

E F

F

Result:

Code has been Implemented successfully.