Breadth First Search
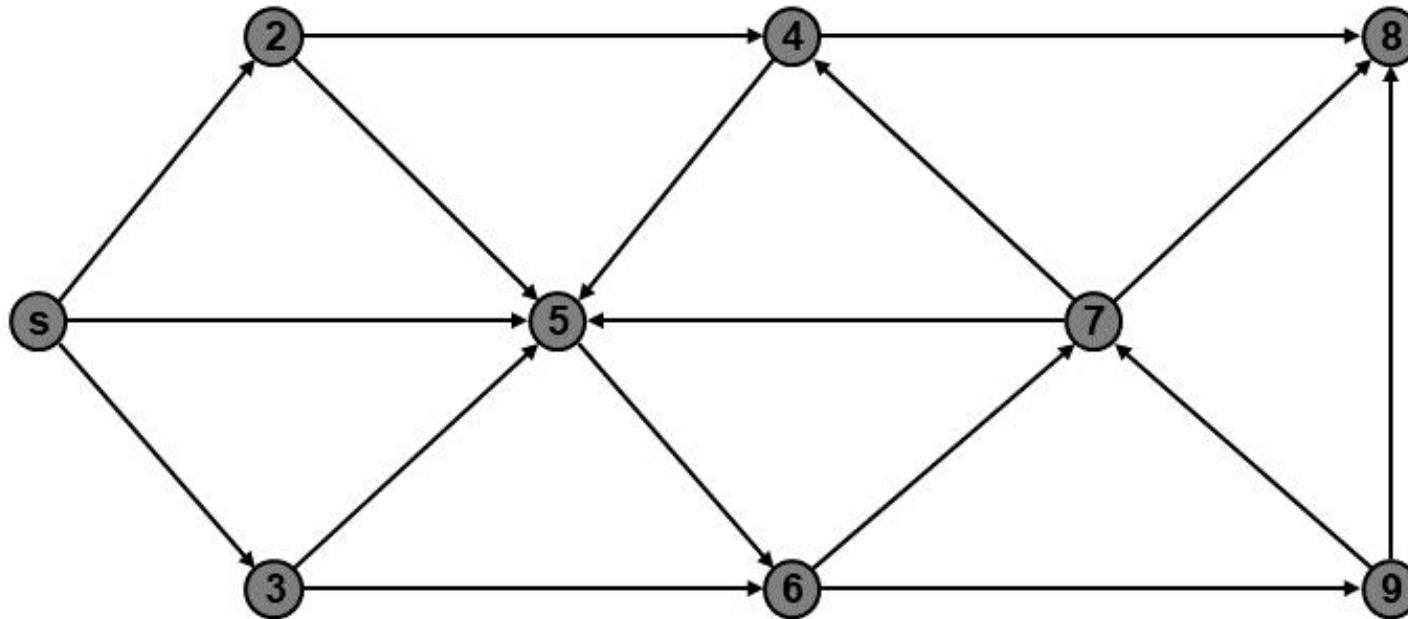
Breadth First Search

Shortest path from s

1

2

0 s

3 4 5 6 7 8 9

| Undiscovered |
| Discovered |
| Top of queue |
| Finished |

Queue: s

21

Breadth First Search

| Undiscovered |
| Discovered |
| Top of queue |
| Finished |

Queue: s 2

22

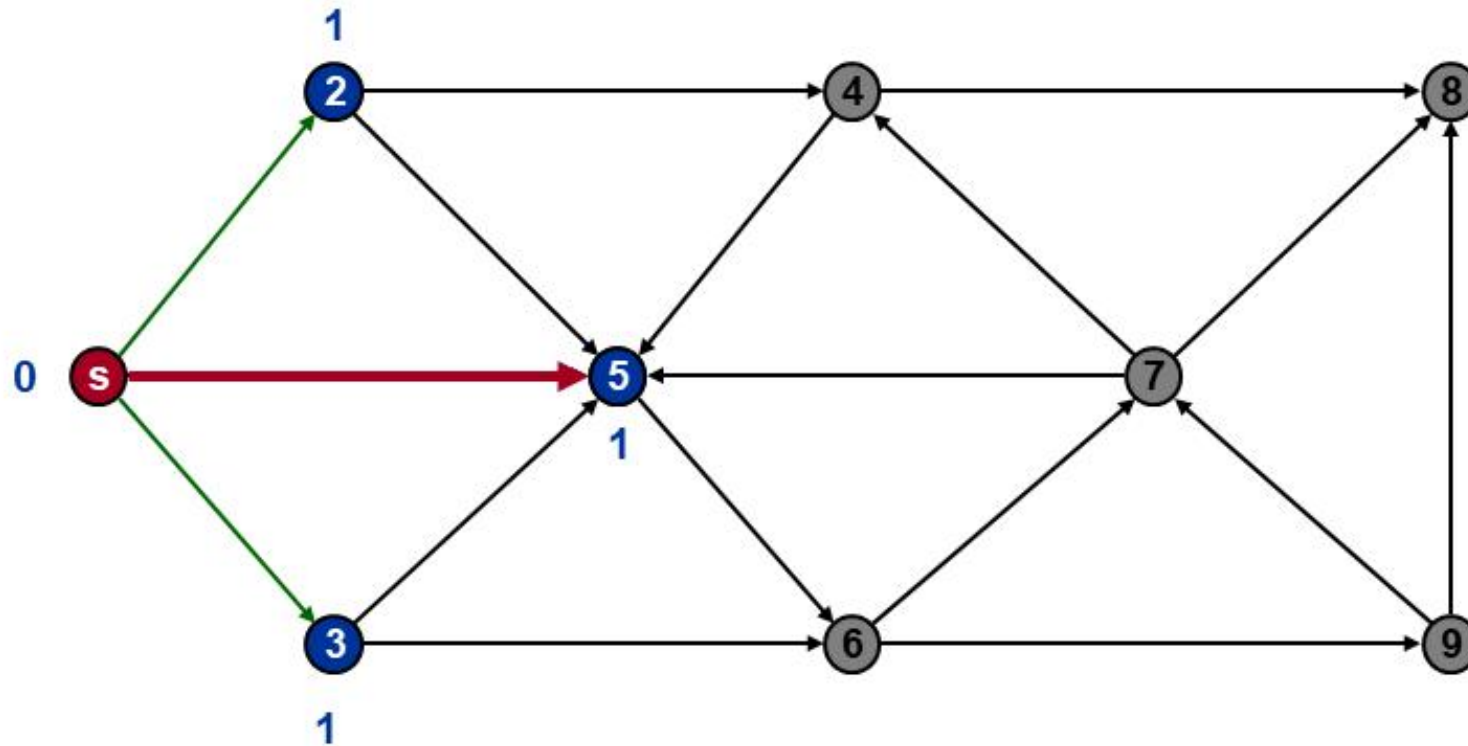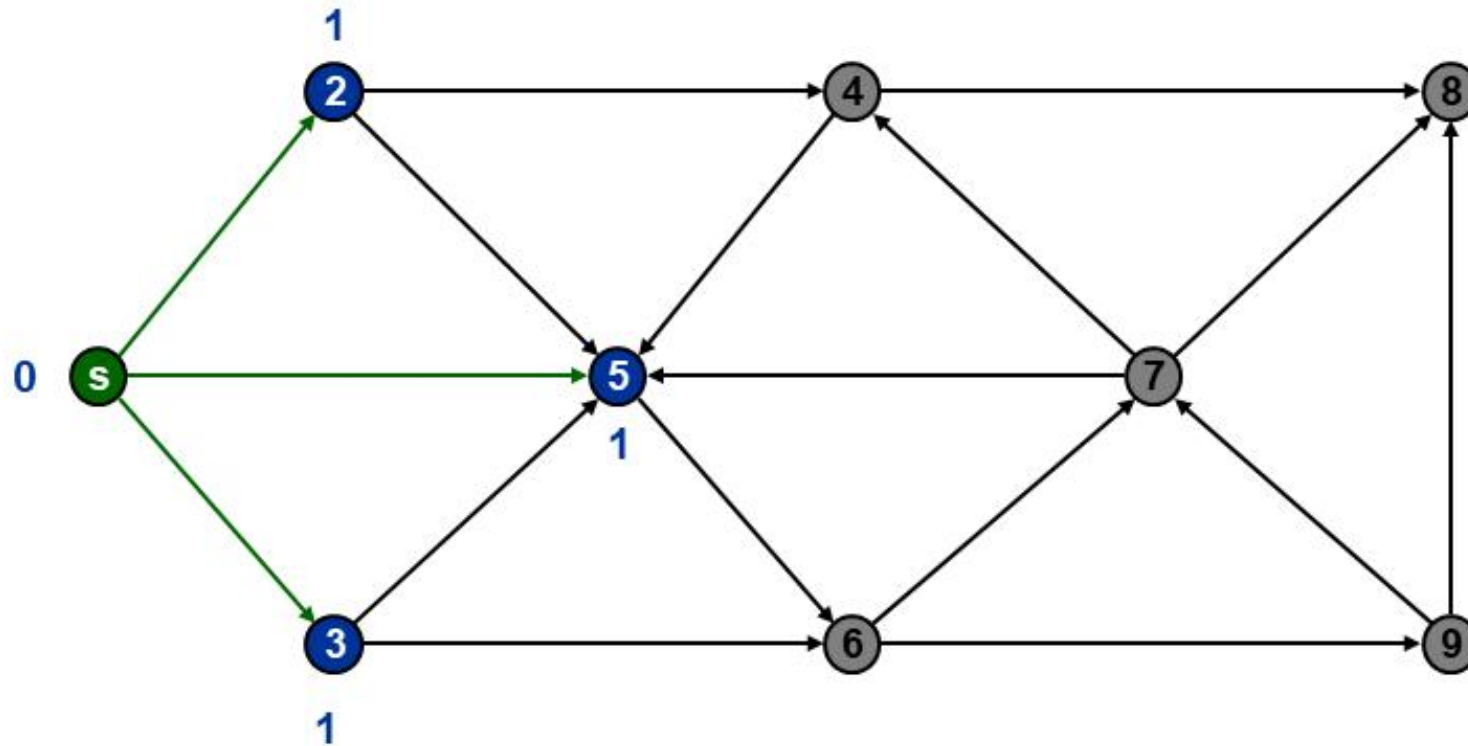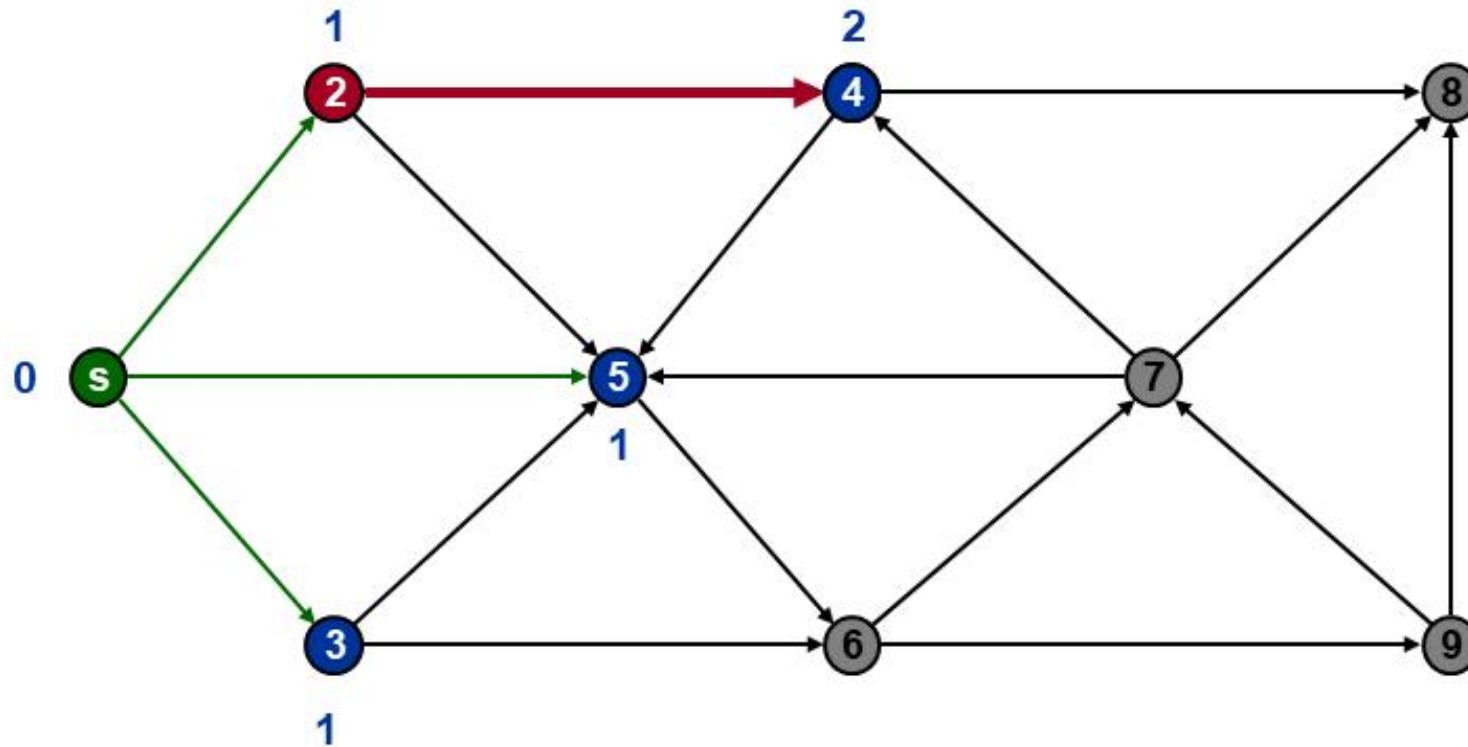# Breadth First Search

Undiscovered
Discovered
Top of queue
Finished

Queue: s 2 3

23

Breadth First Search
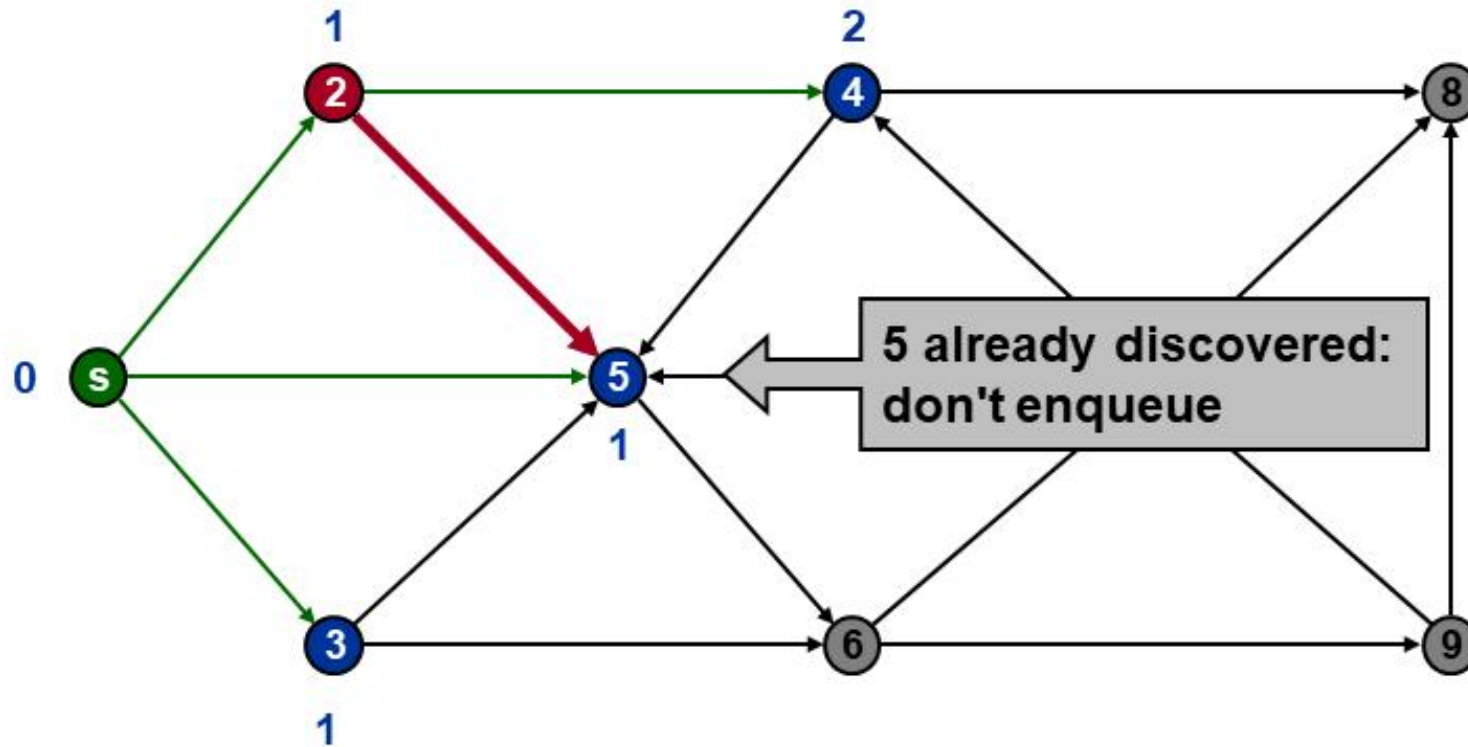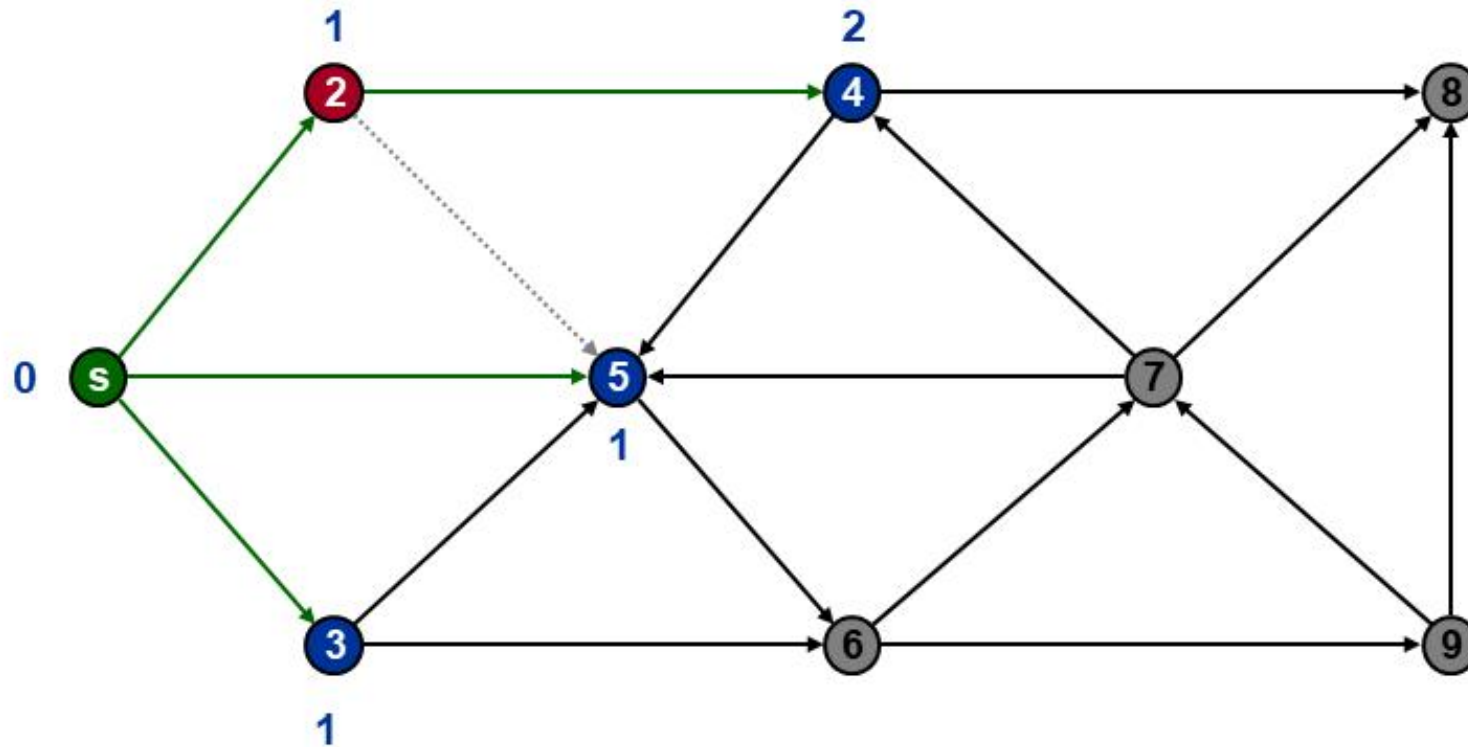

Undiscovered
Discovered
Top of queue
Finished

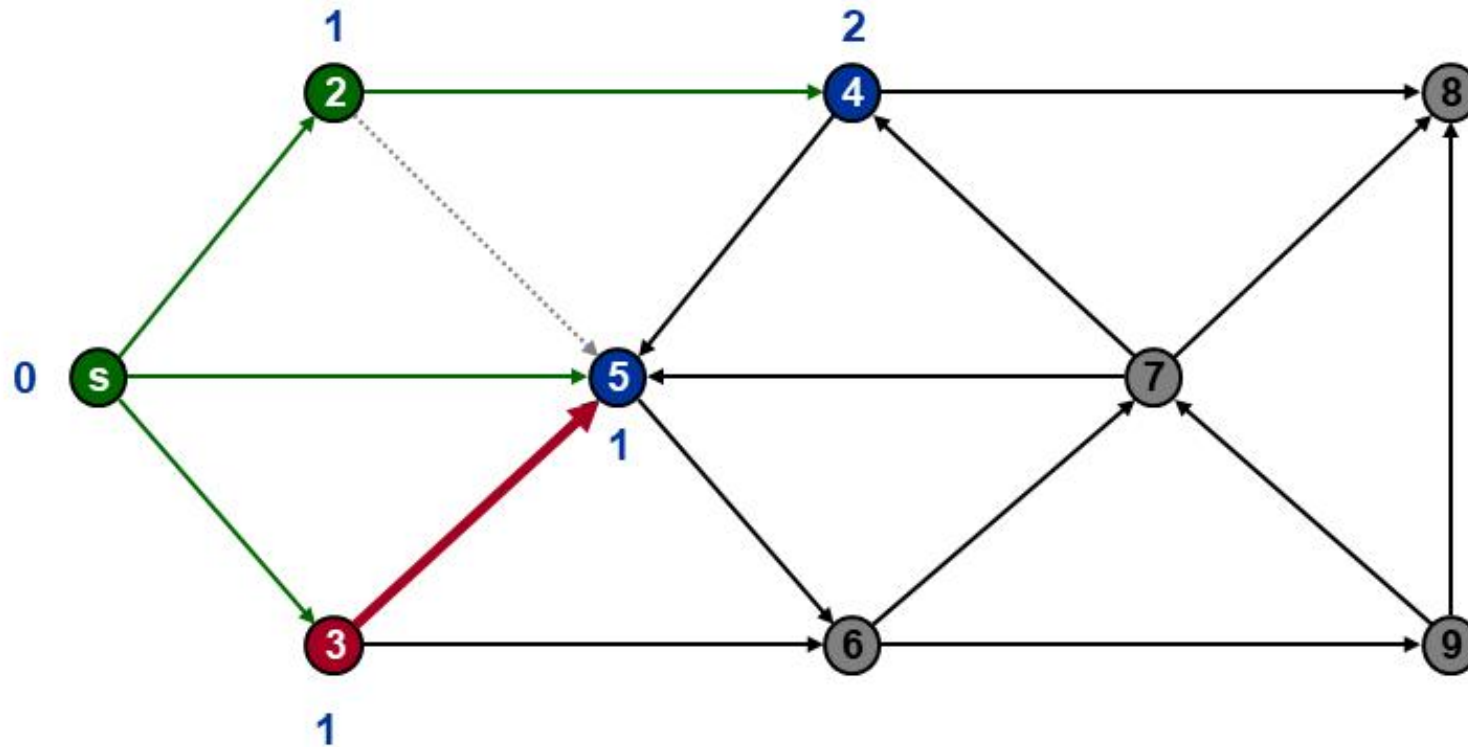Queue: 2 3 5

24

Breadth First Search

Undiscovered	
Discovered	
Top of queue	
Finished	

Queue: 2 3 5

25

Breadth First Search

Undiscovered
Discovered
Top of queue
Finished

Queue: 2 3 5 4

Breadth First Search

Undiscovered
Discovered
Top of queue
Finished

Queue: 2 3 5 4

Breadth First Search

Undiscovered
Discovered
Top of queue
Finished

Queue: 3 5 4

28

Breadth First Search

Undiscovered
Discovered
Top of queue
Finished

Queue: 3 5 4

29

Breadth First Search
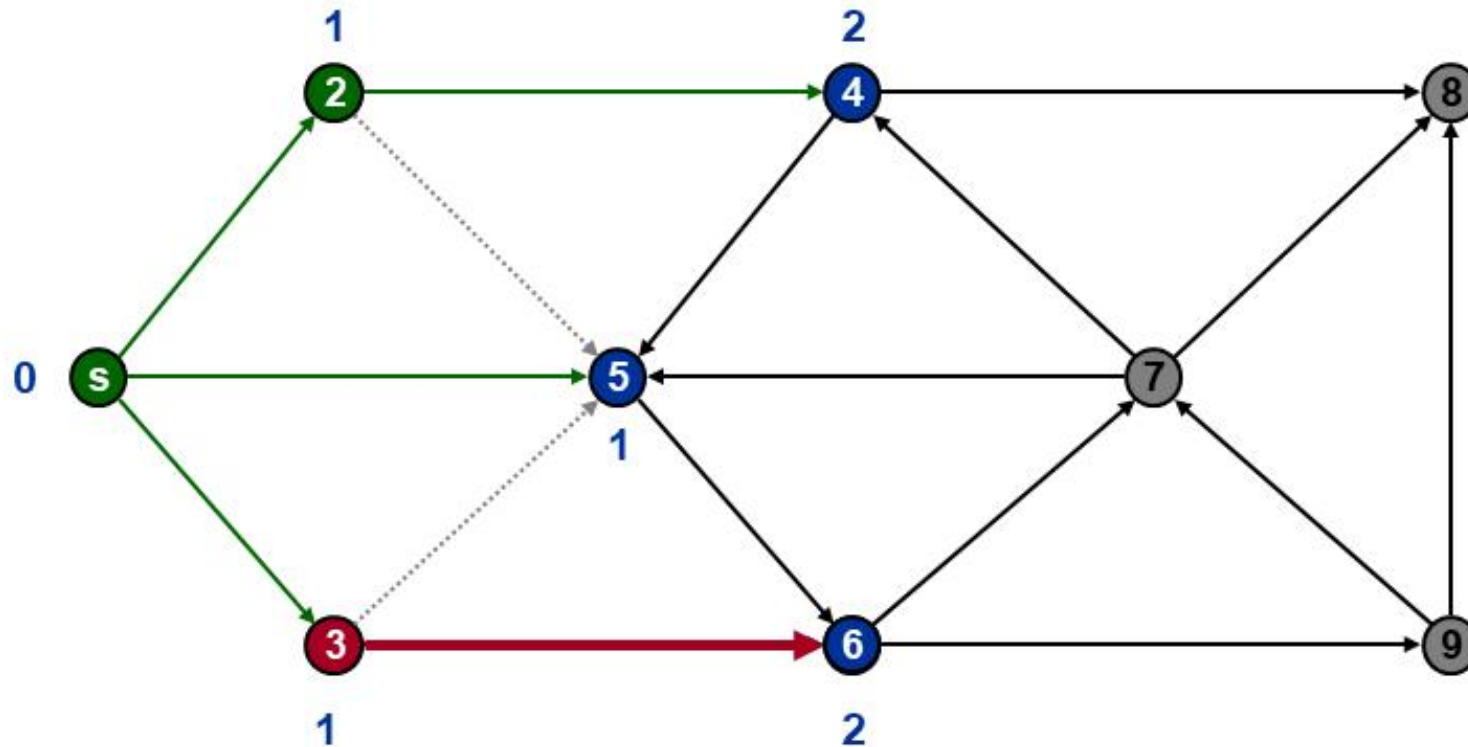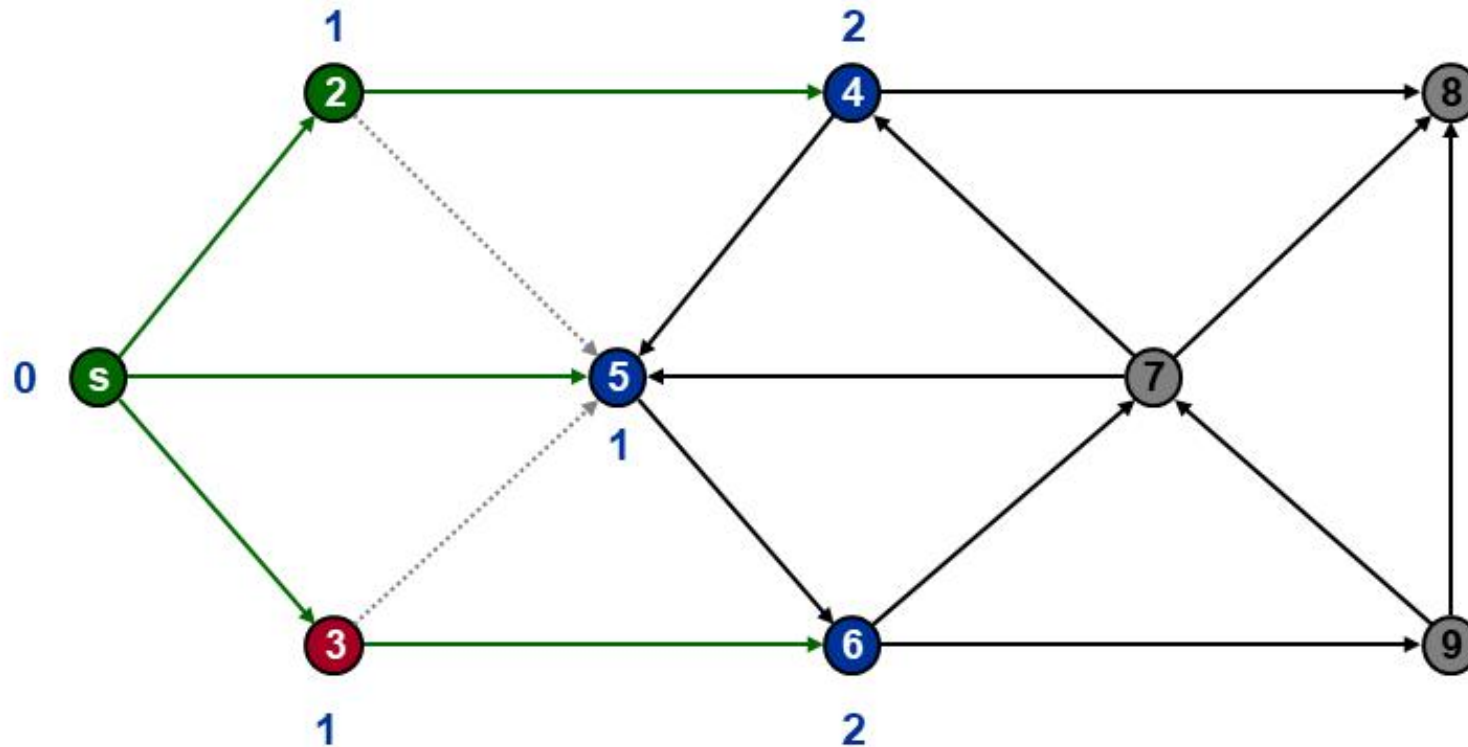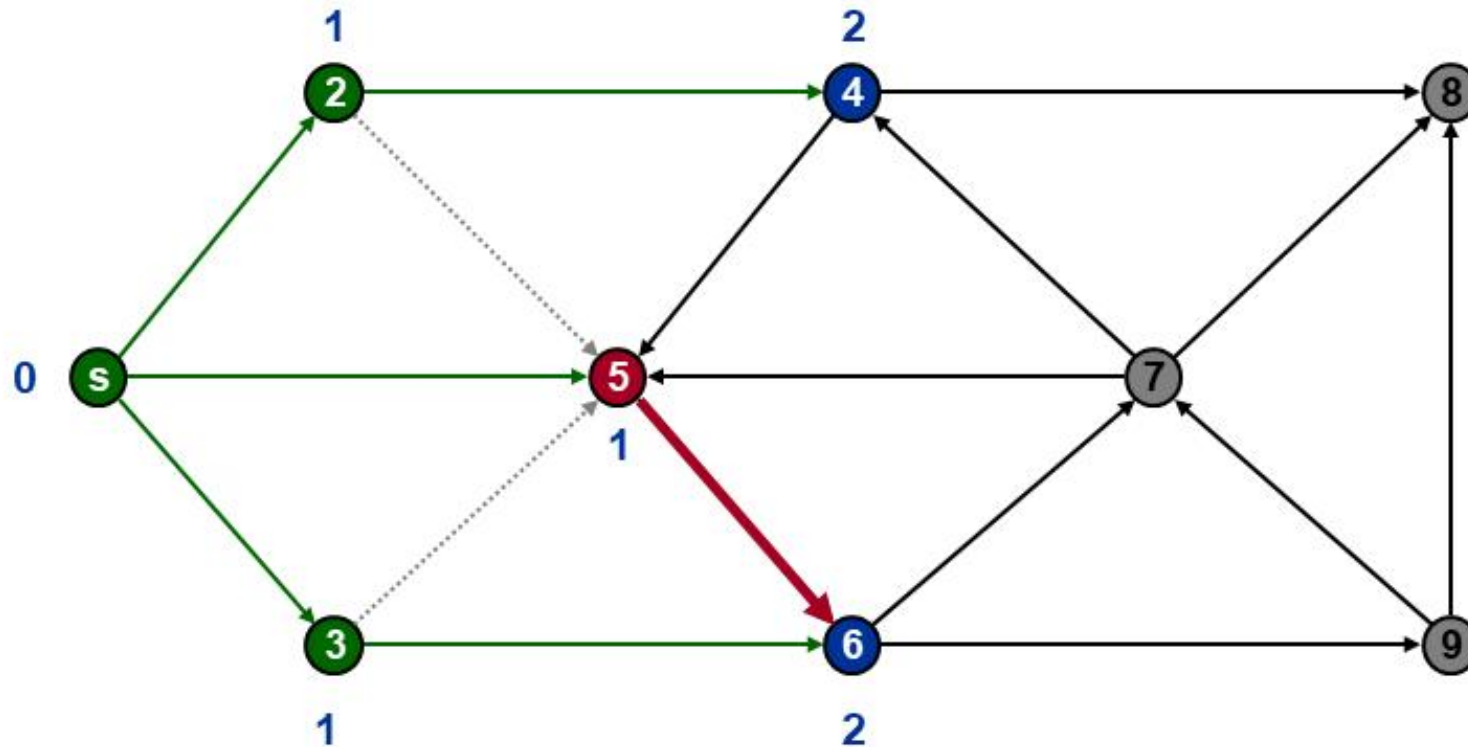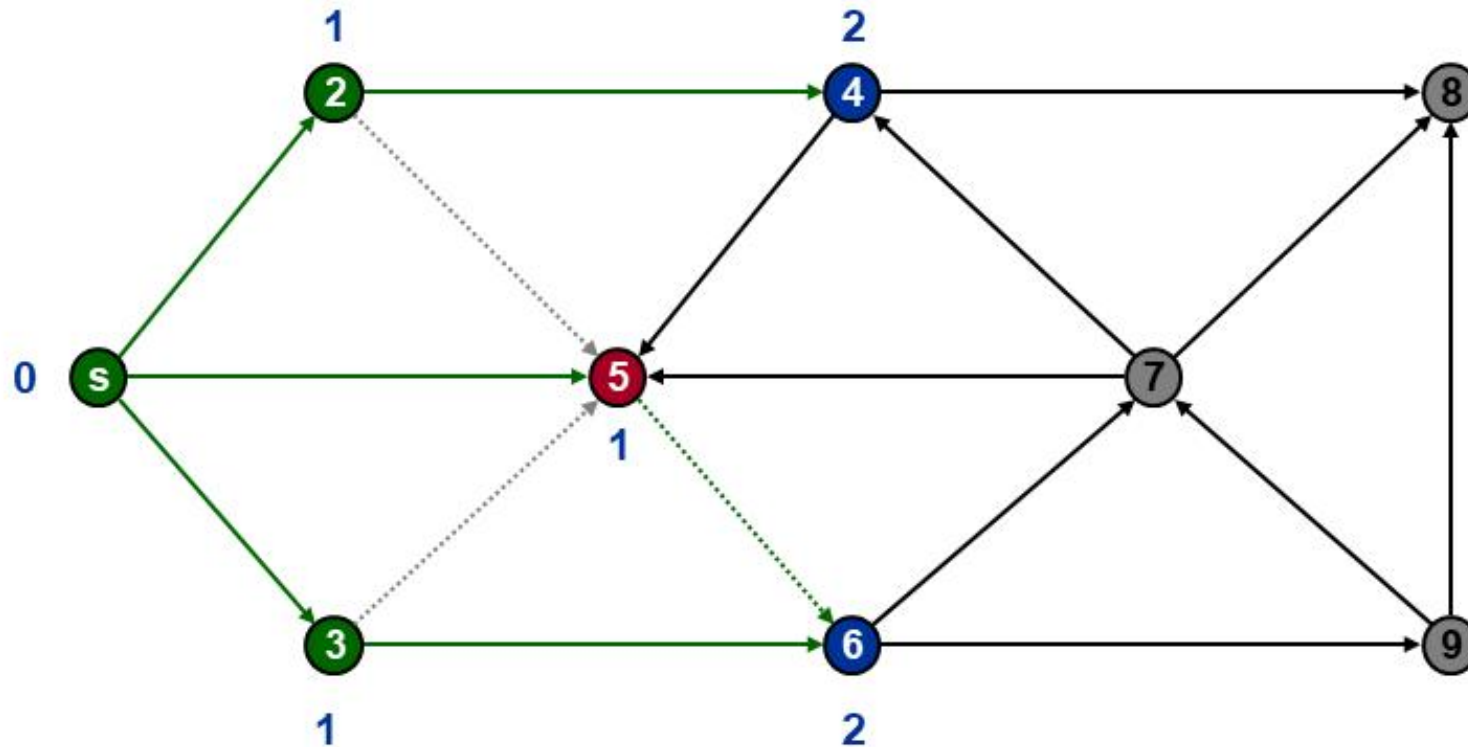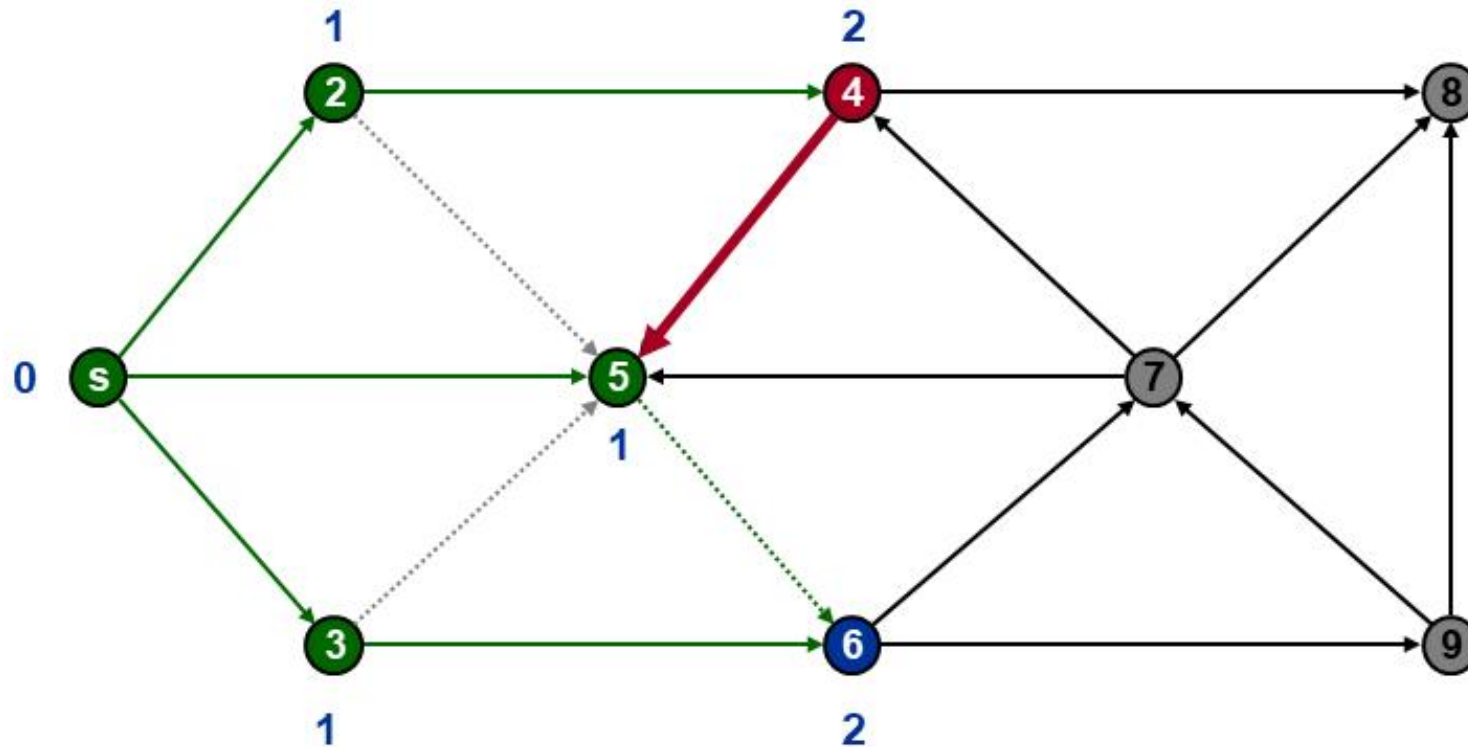

Queue: 3 5 4 6

Breadth First Search

Undiscovered
Discovered
Top of queue
Finished

Queue: 5 4 6

31

Breadth First Search

Undiscovered
Discovered
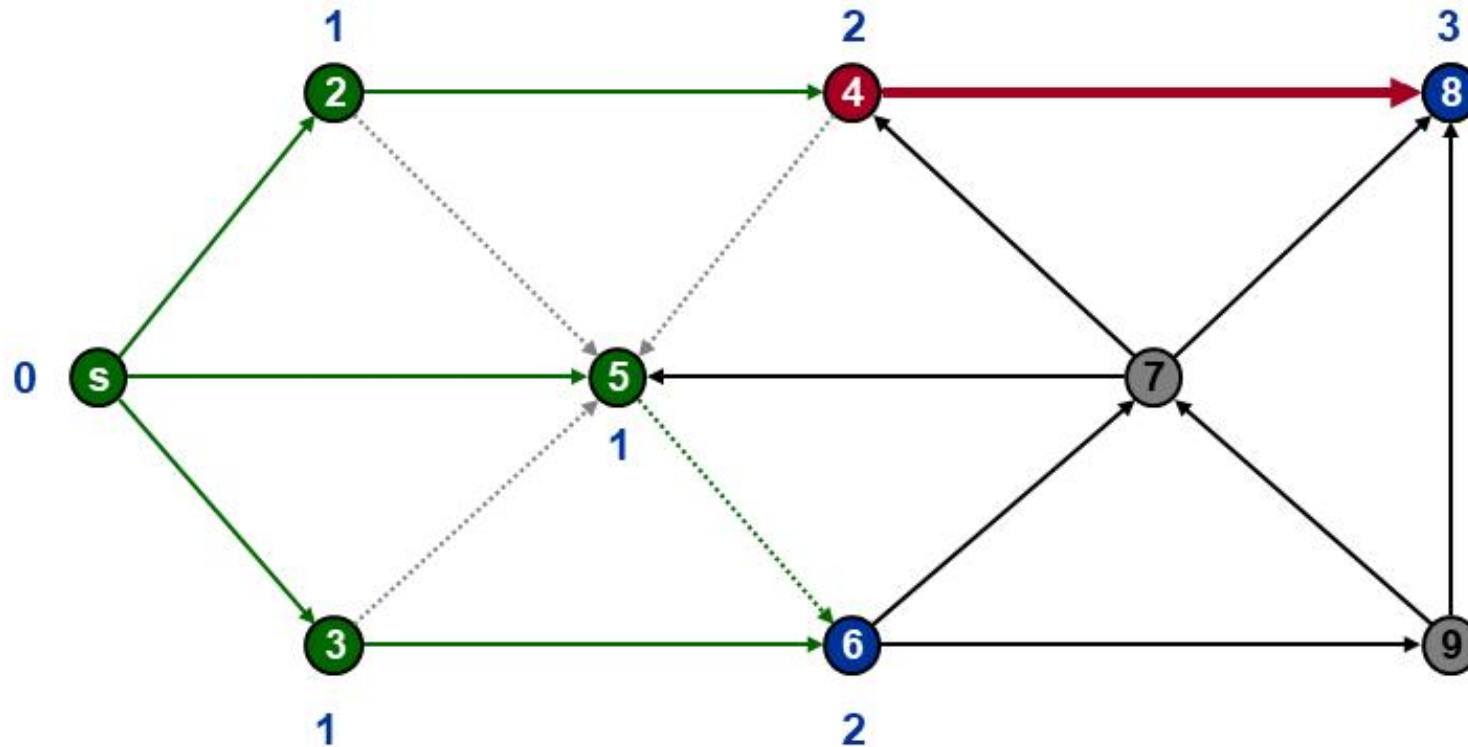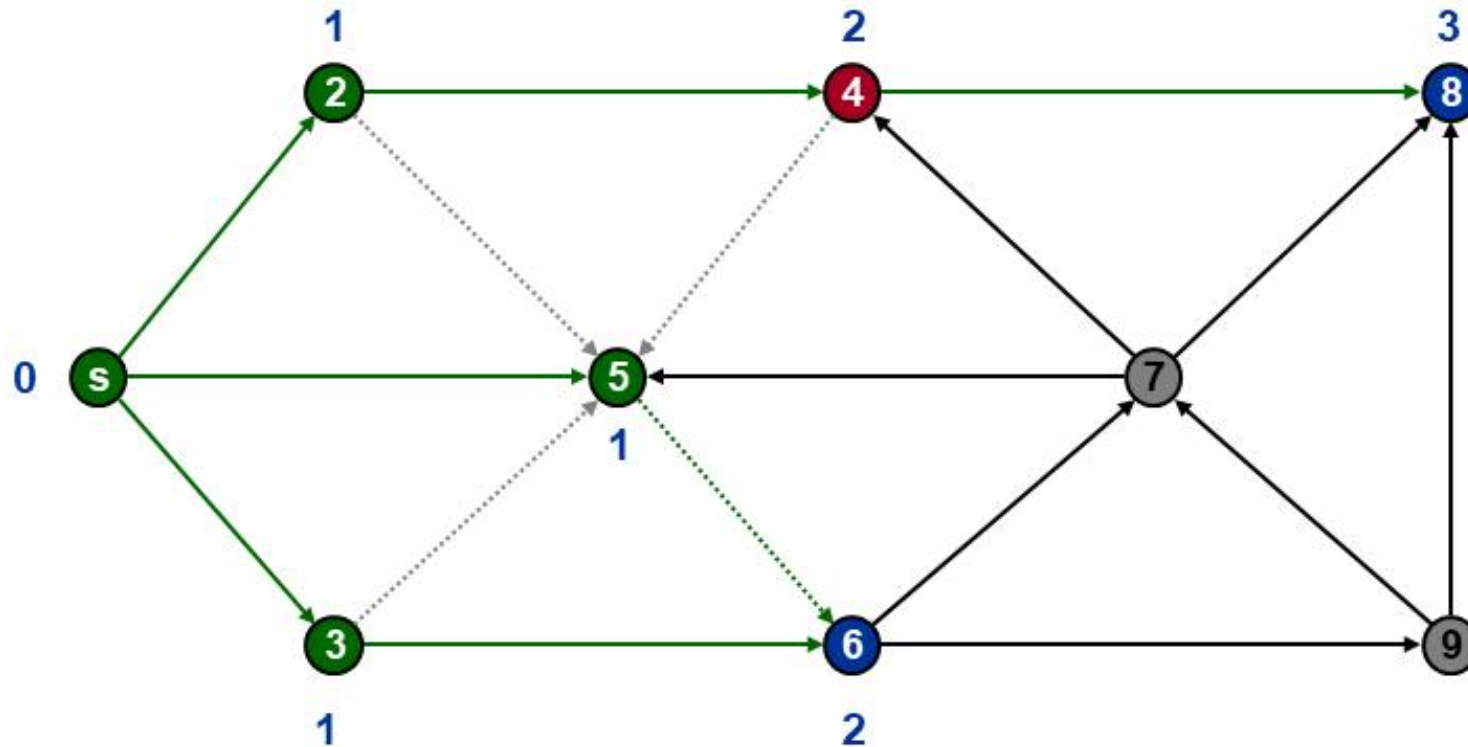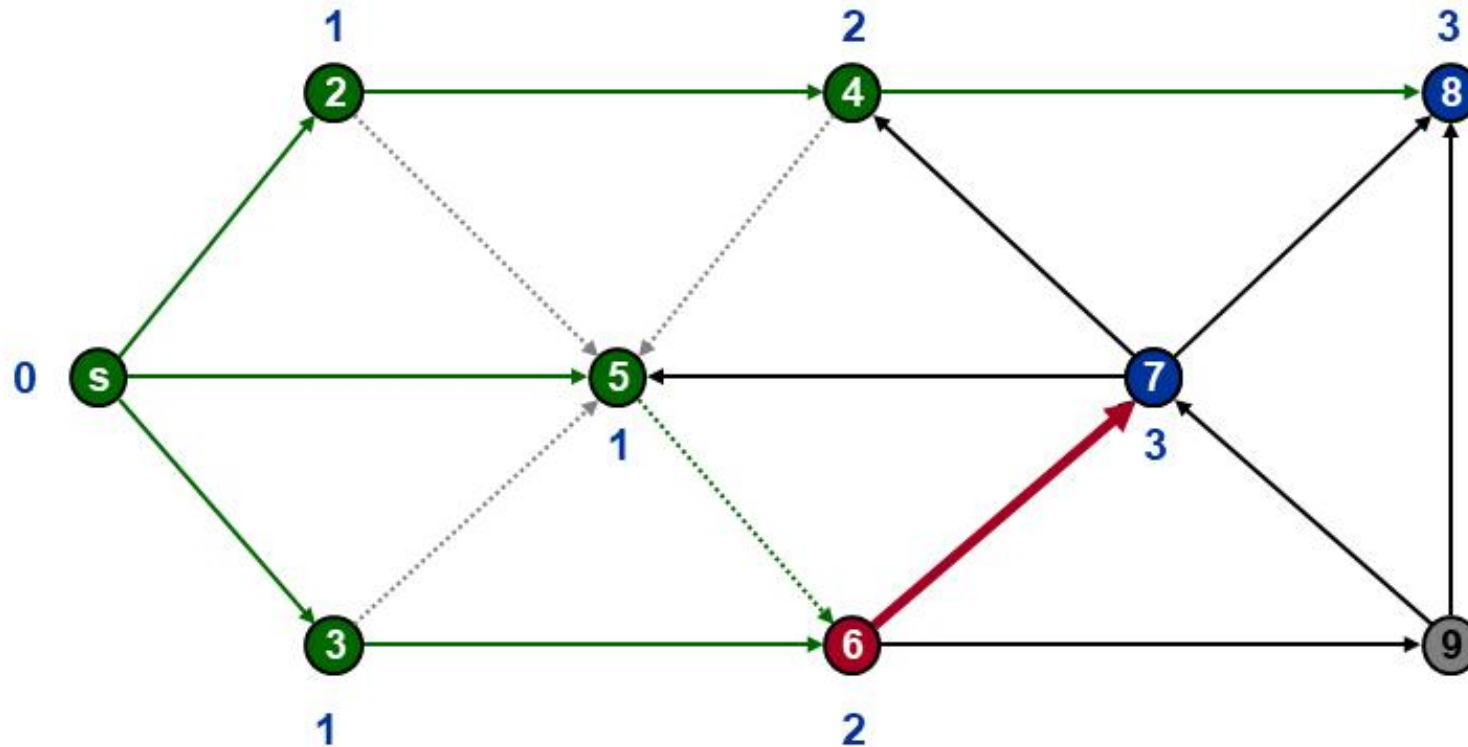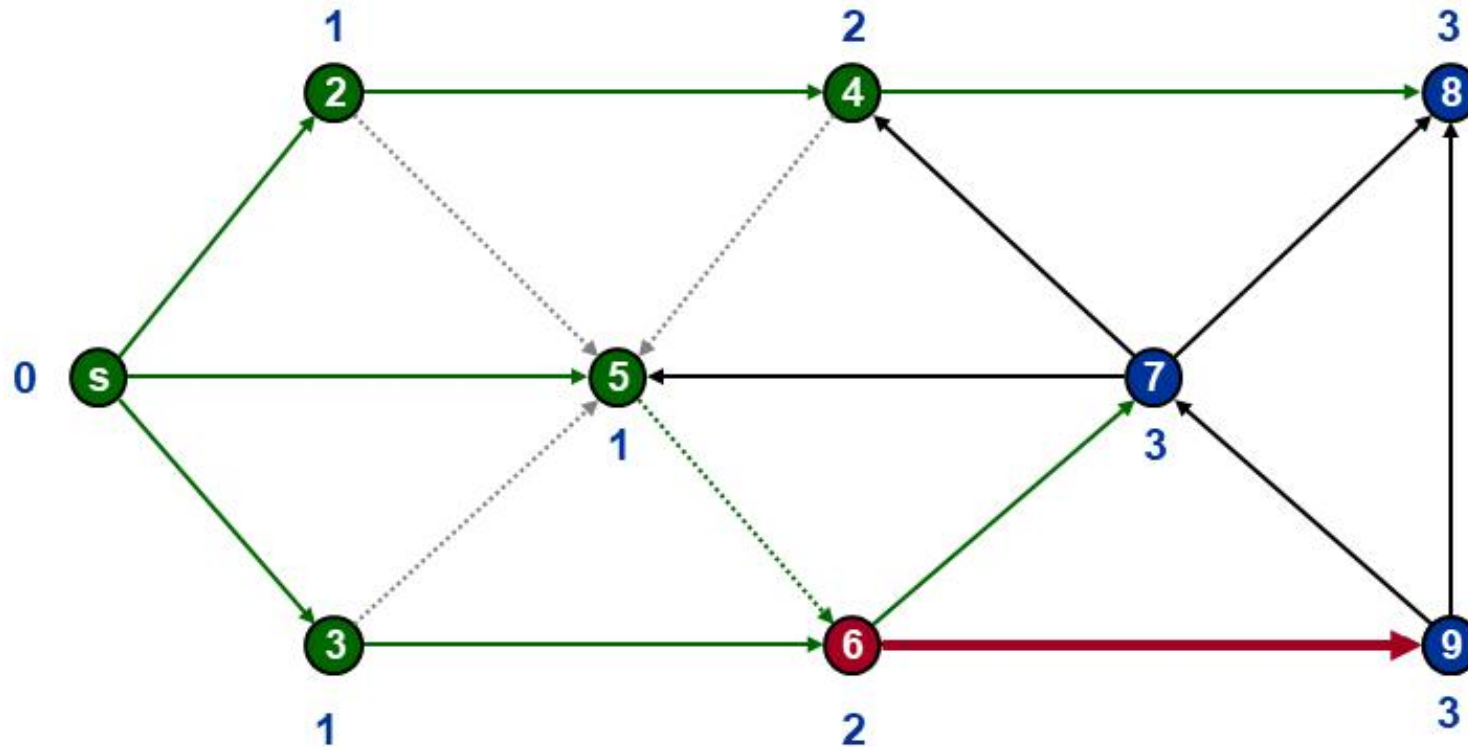Top of queue
Finished

Queue: 5 4 6

32

Breadth First Search

Undiscovered
Discovered
Top of queue
Finished

Queue: 4 6

33

Breadth First Search

Undiscovered
Discovered
Top of queue
Finished

Queue: 4 6

34

Breadth First Search

Queue: 4 6 8

Breadth First Search

Undiscovered
Discovered
Top of queue
Finished

Queue: 6 8

Breadth First Search

Undiscovered
Discovered
Top of queue
Finished

Queue: 6 8 7

37

Breadth First Search

Breadth First Search

Undiscovered
Discovered
Top of queue
Finished

Queue: 8 7 9

39

Breadth First Search

Queue: 7 9

Legend:
- Undiscovered
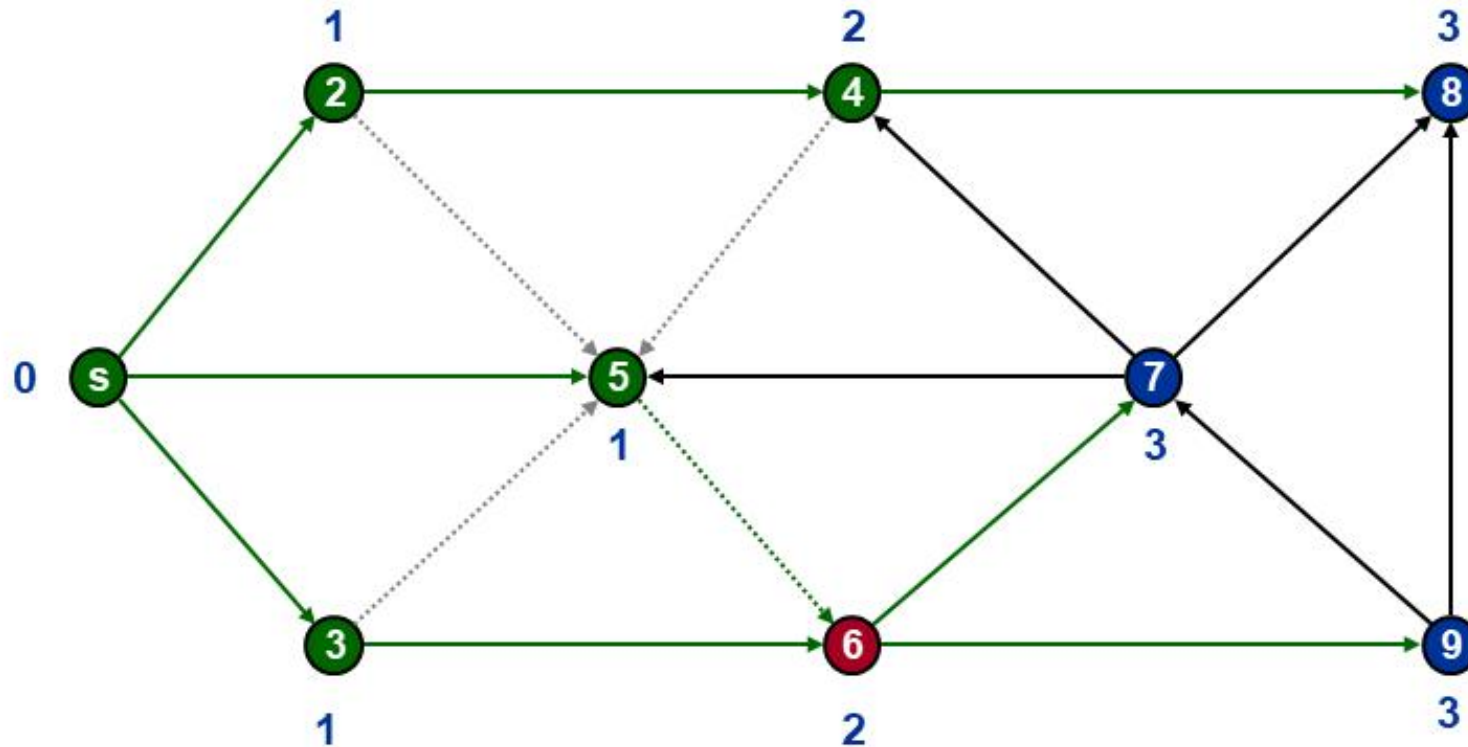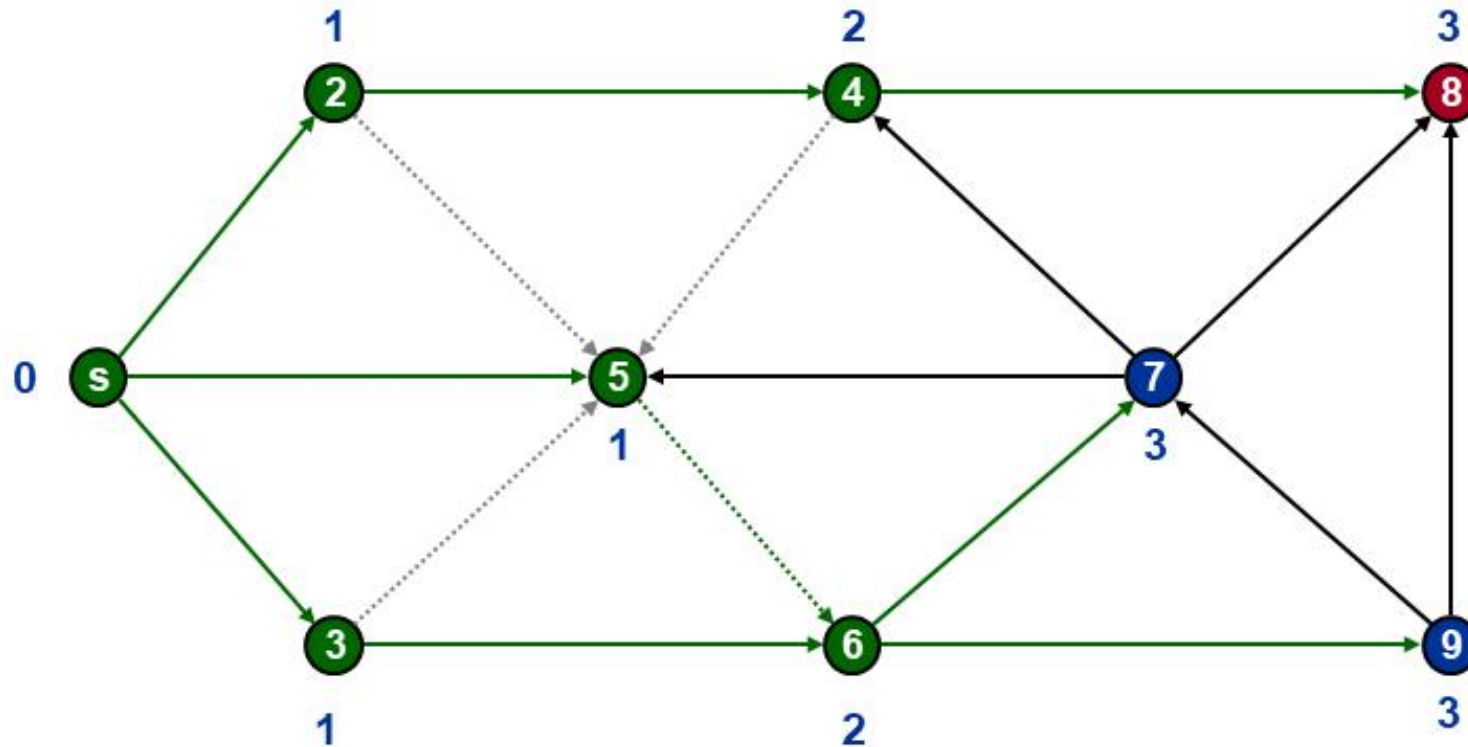- Discovered
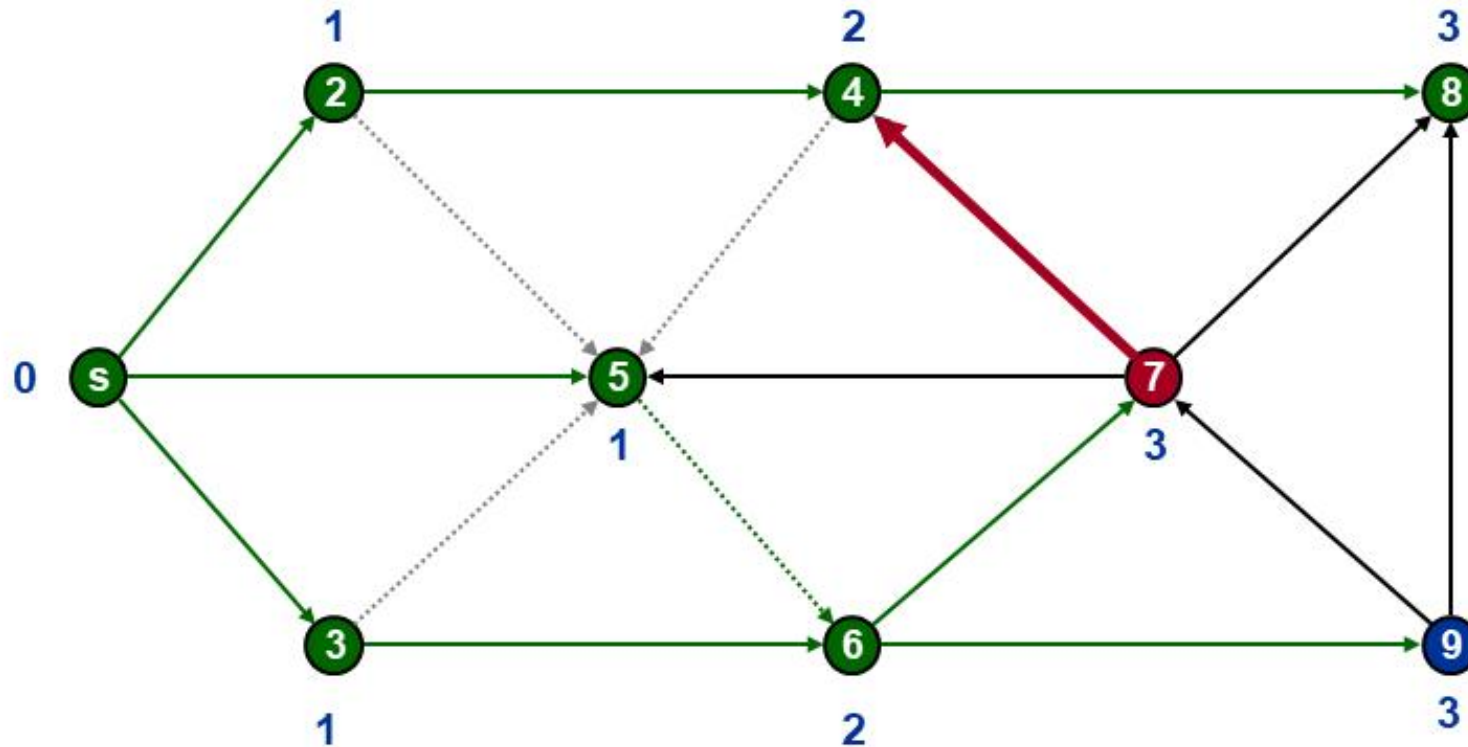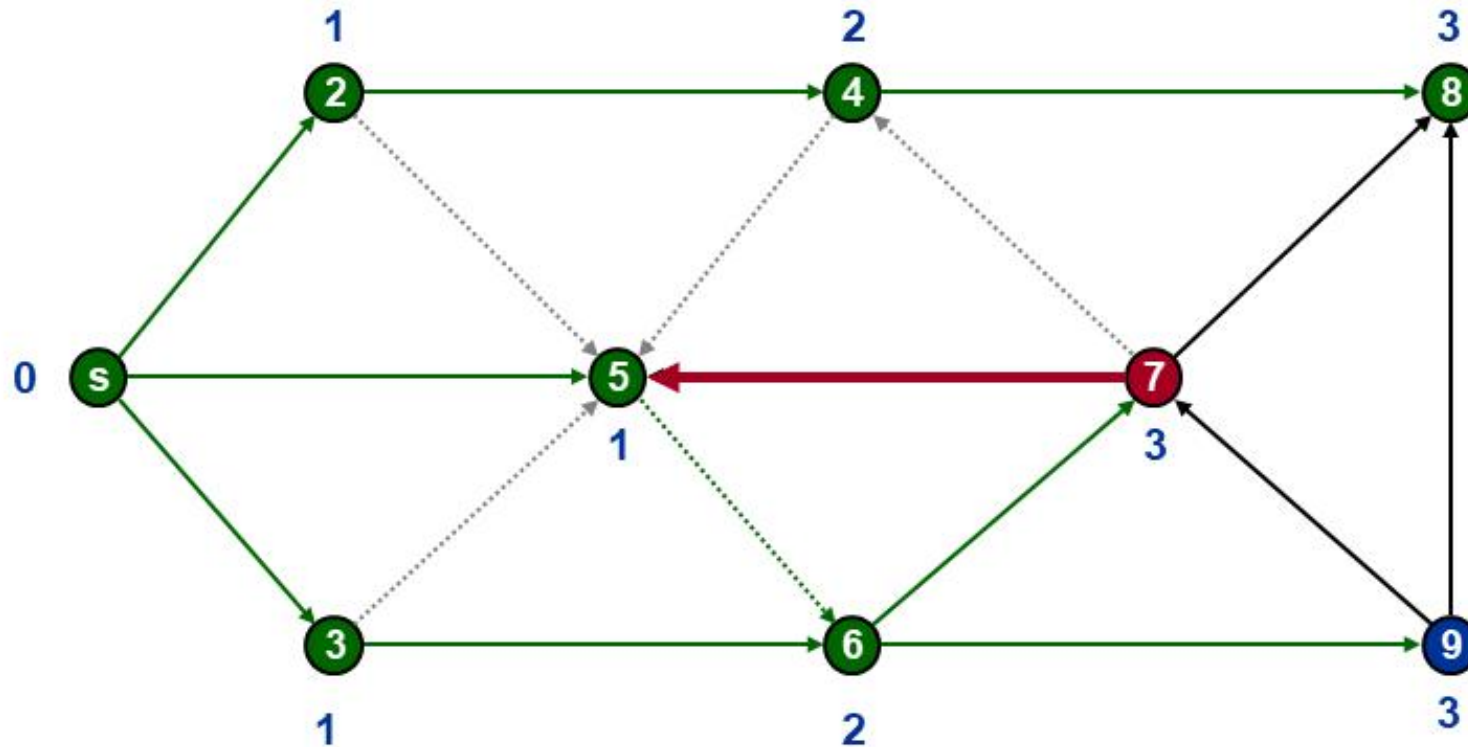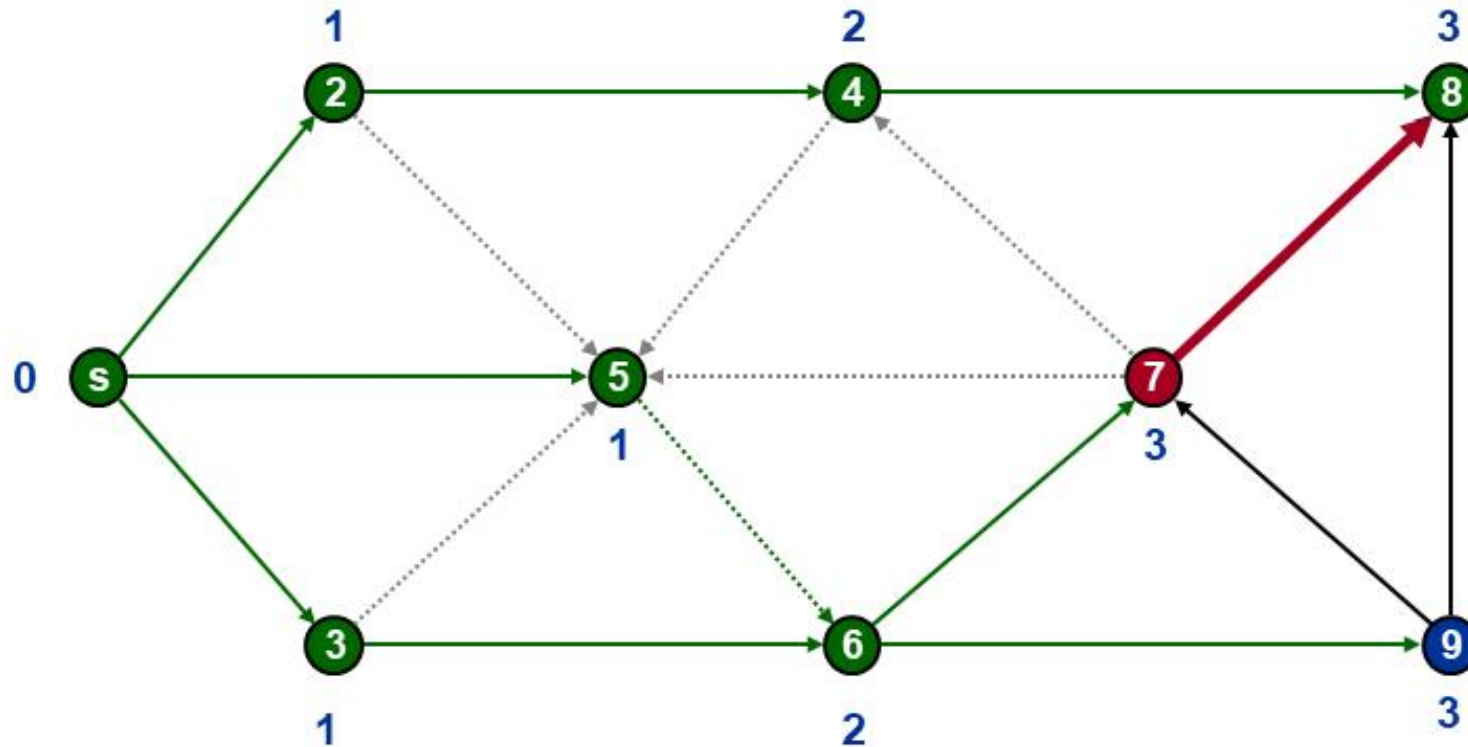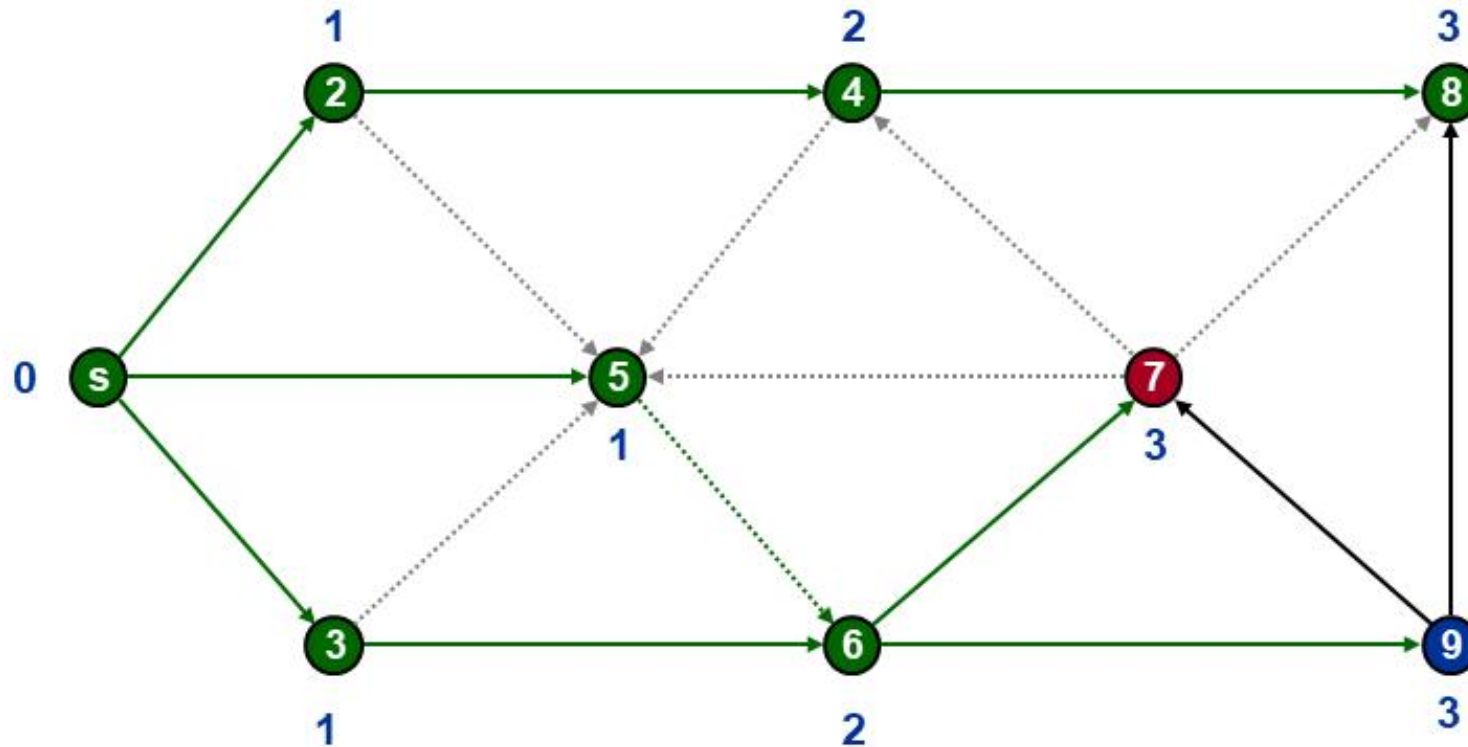- Top of queue
- Finished

Breadth First Search

Undiscovered
Discovered
Top of queue
Finished

Queue: 7 9

41

Breadth First Search

Undiscovered
Discovered
Top of queue
Finished

Queue: 7 9

42

Breadth First Search

Undiscovered
Discovered
Top of queue
Finished

Queue: 7 9

43

Breadth First Search

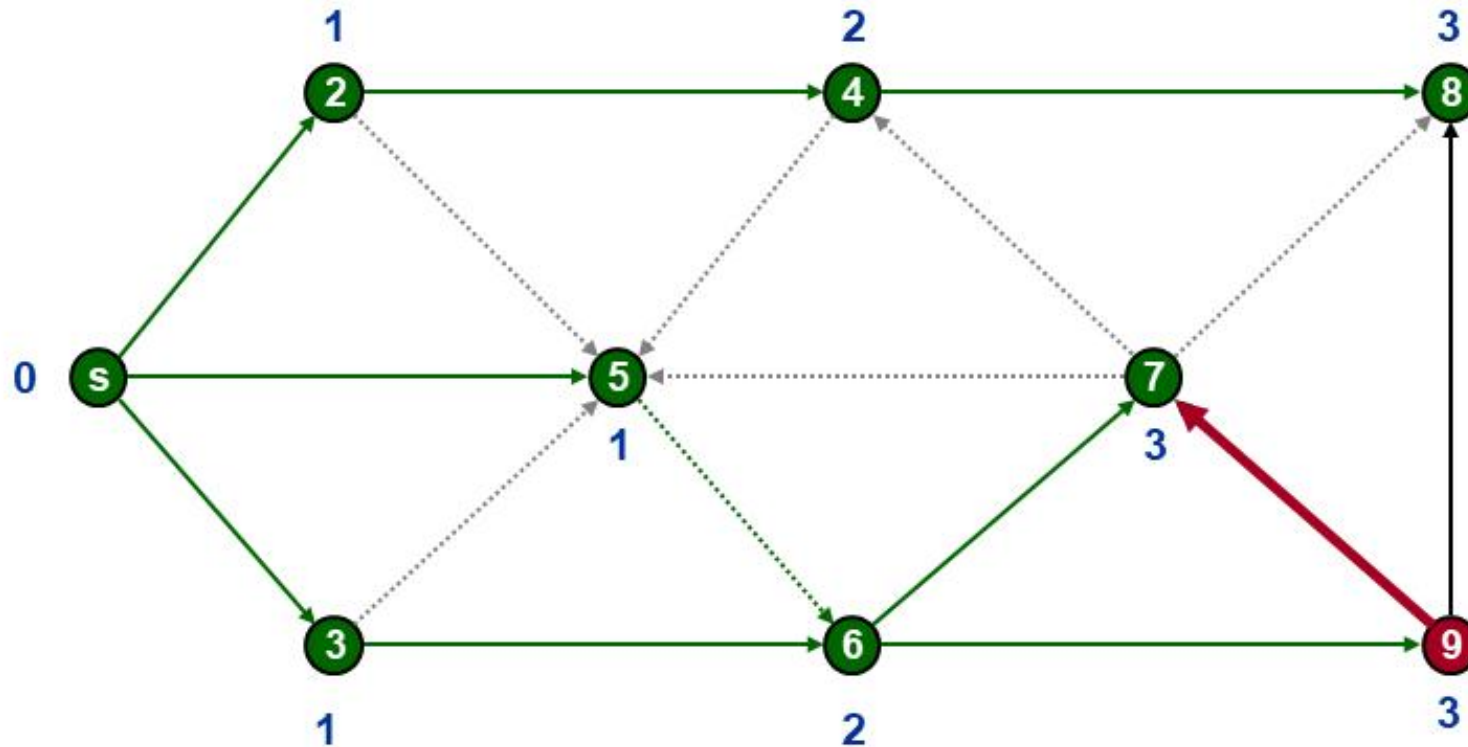| Undiscovered |
|:---:|
| Discovered |
| Top of queue |
| Finished |

Queue: 9

Breadth First Search

Undiscovered
Discovered
Top of queue
Finished

Queue: 9

45

Breadth First Search

Undiscovered
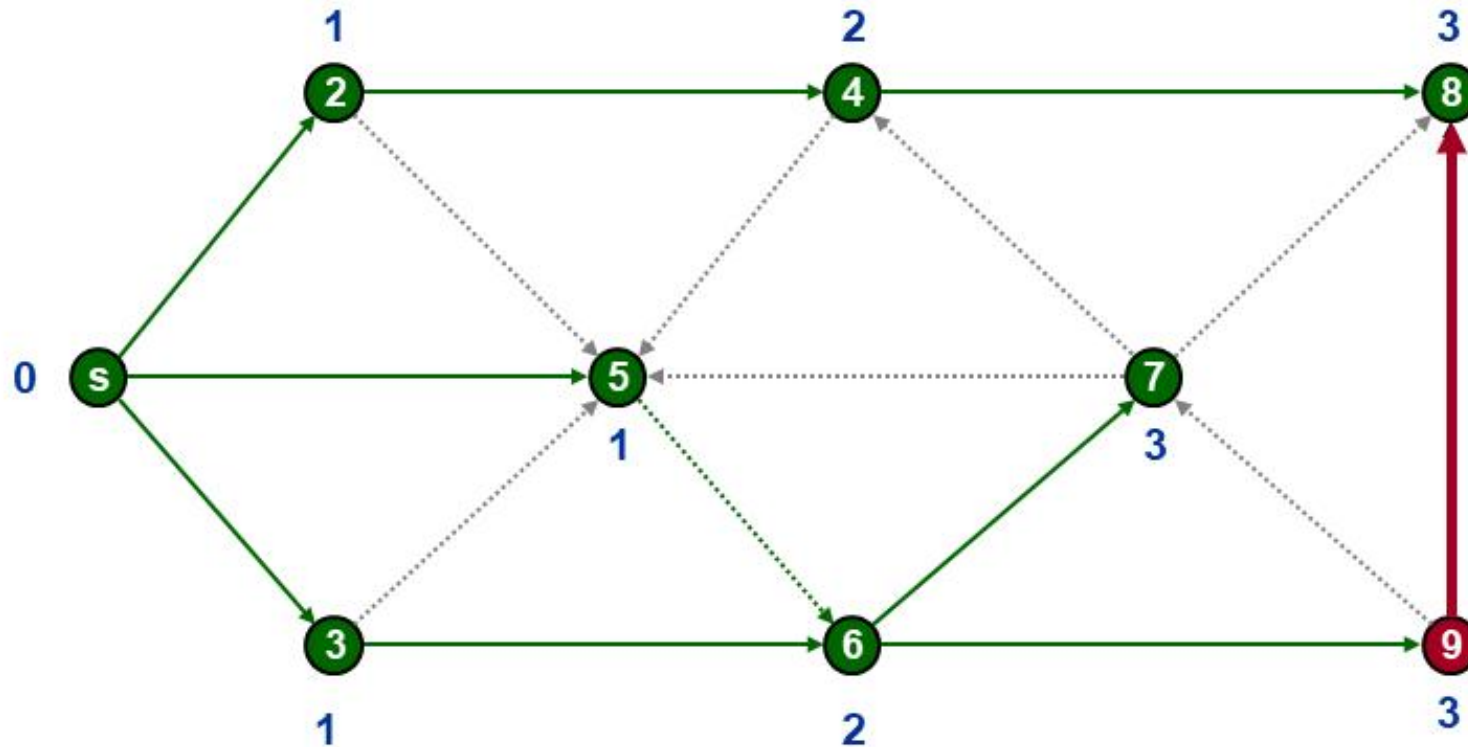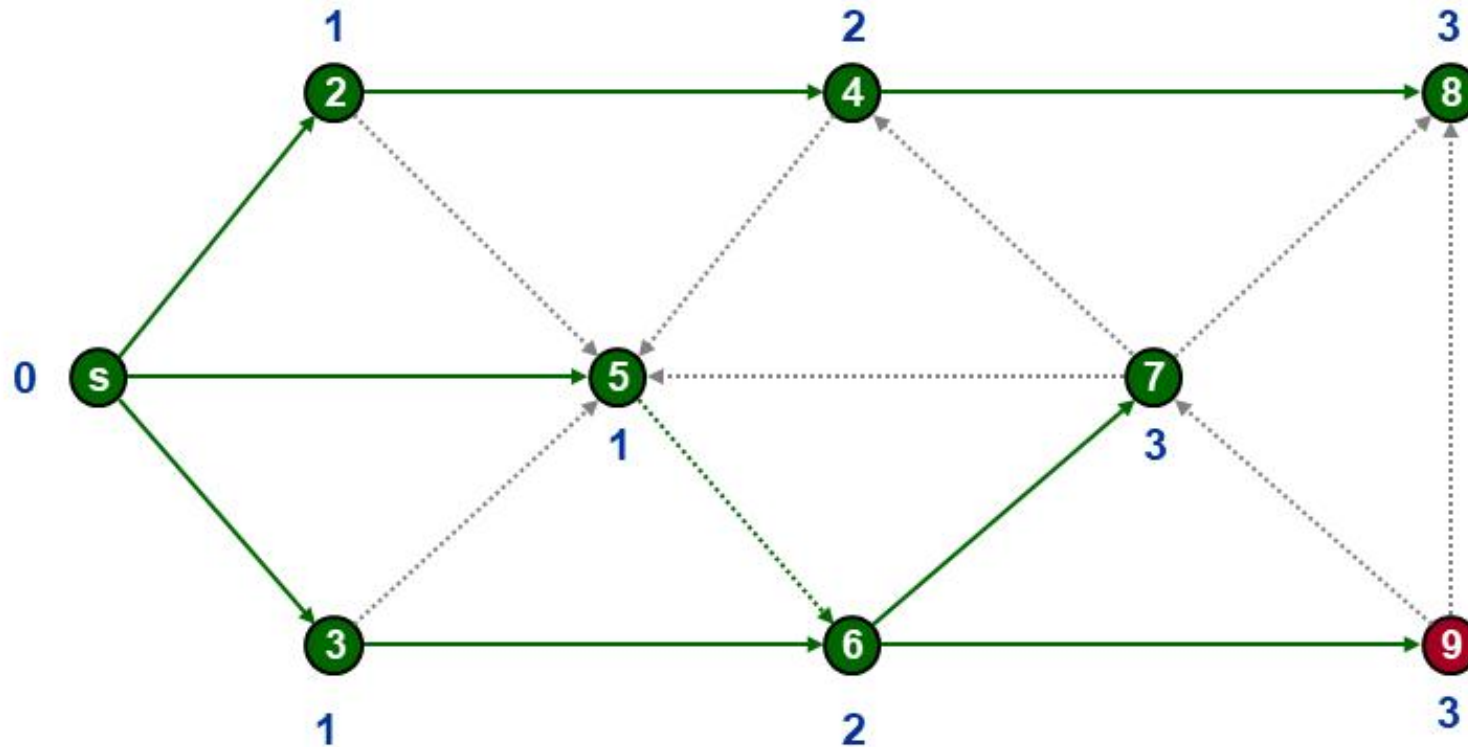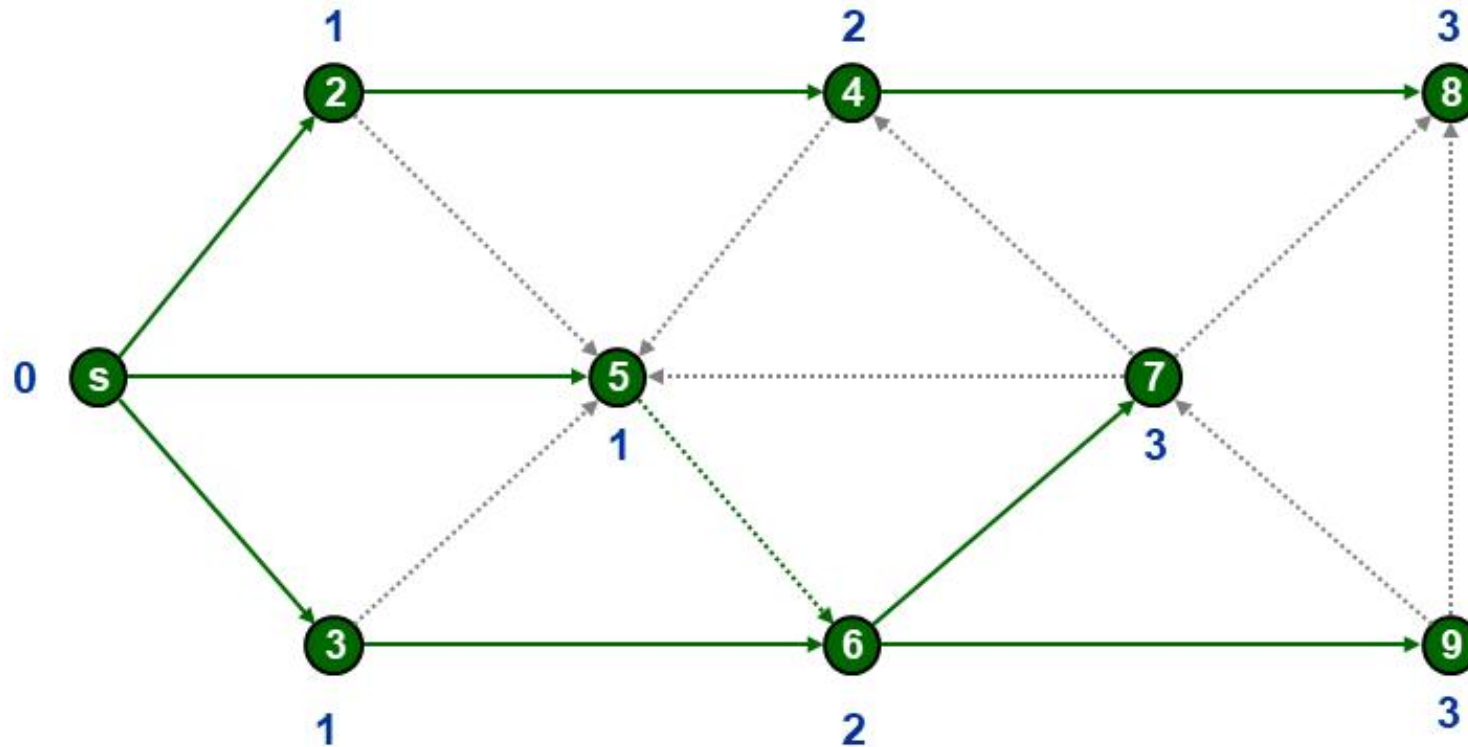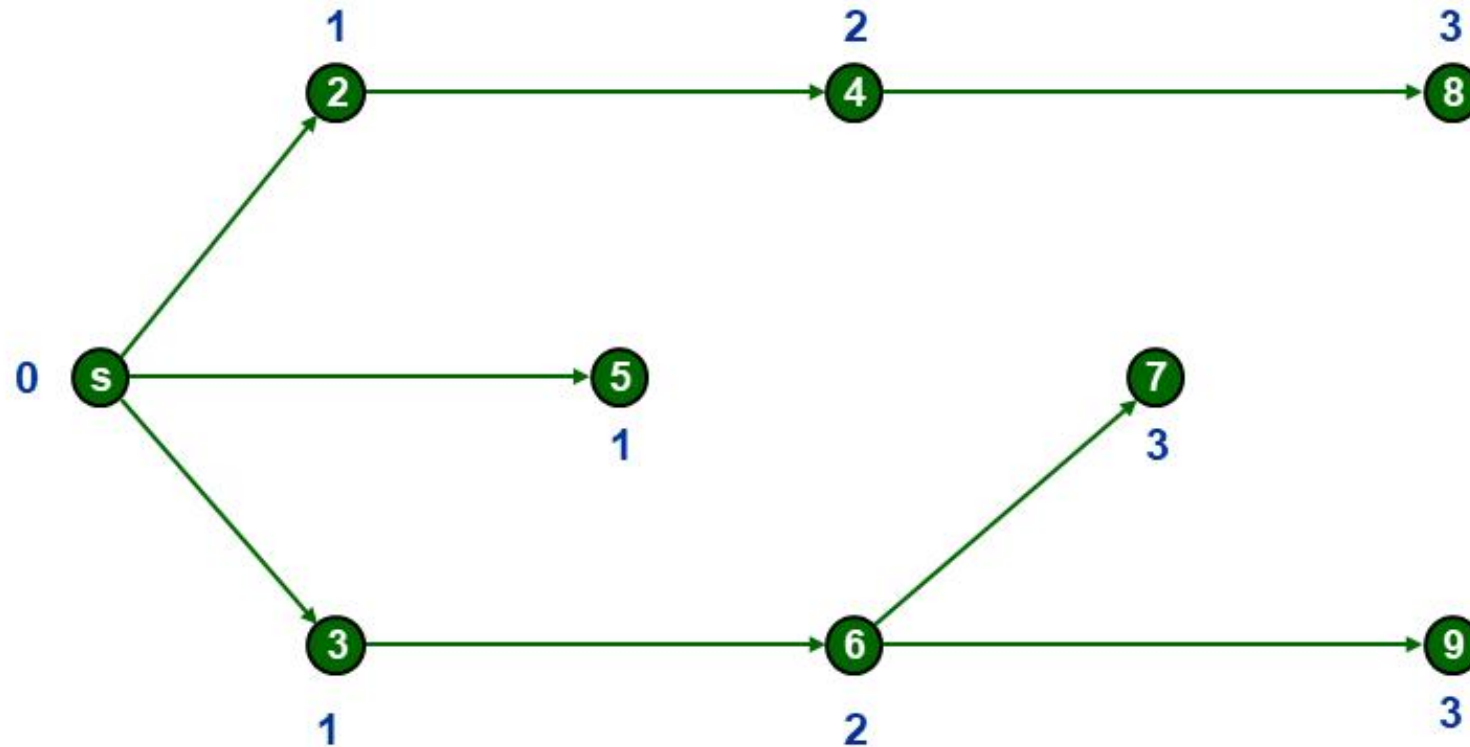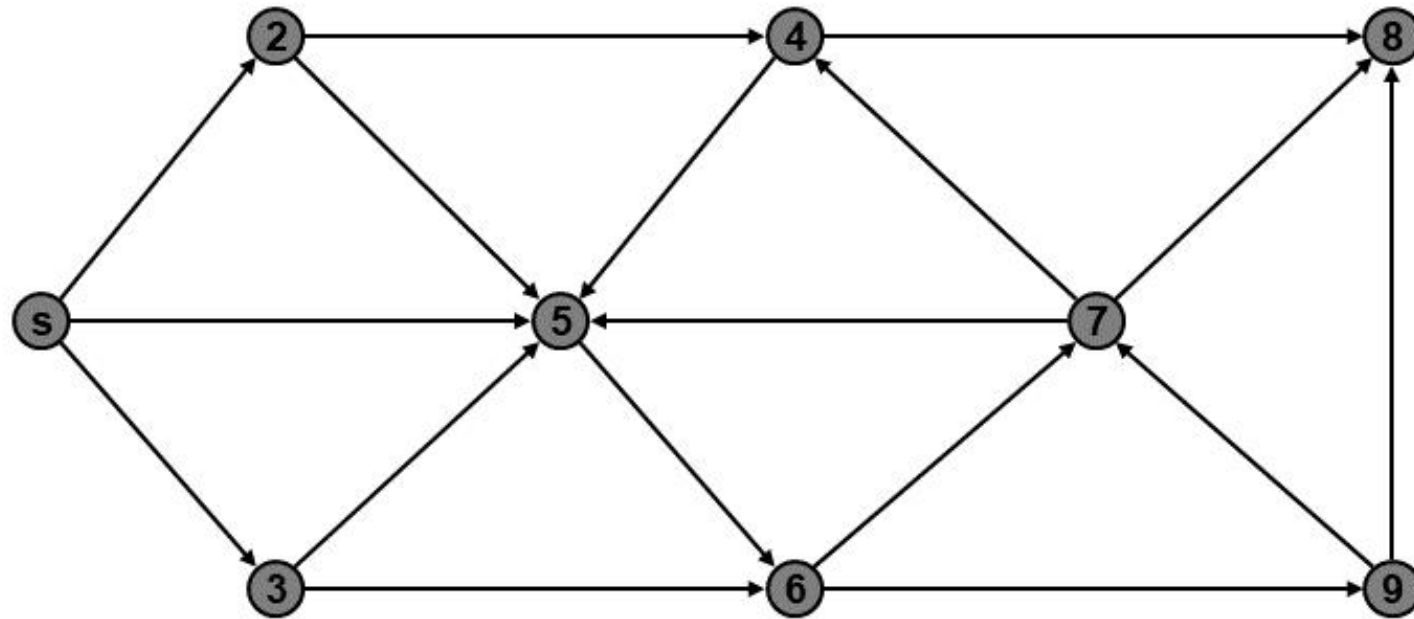Discovered
Top of queue
Finished

Queue: 9

46

Breadth First Search

| Undiscovered |
| Discovered |
| Top of queue |
| Finished |

Queue:

47

Breadth First Search

Level Graph

48

Depth First Search

☐ **Apply DFS algorithm on the same graph using stack and see what is DFS Tree generated after exhausting whole stack.**