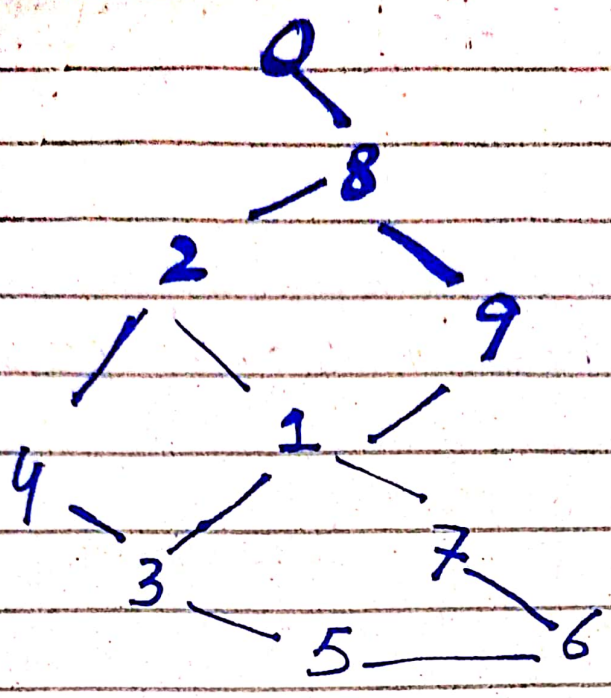



take source 0
Make adjacency list in ascending order.

(1) Enqueue 0
Q = {0}

| | T |
|---|---|
| 0 | |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |

② Q = {0} → {8}

dequeue 0 and enqueue its unvisited neighbors

| | | |
|---|---|---|
| 0 | T | |
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | T | 0 |
| 9 | | |

③ Q = {8} → {2, 9}

dequeue 8 and enqueue its unvisited neighbors T on VT

| | | |
|---|---|---|
| 0 | T | |
| 1 | | |
| 2 | T | 8 |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | T | 0 |
| 9 | T | 8 |

④ {2, 9} → {9, 1, 4}

dequeue 2 and enqueue its unvisited neighbors and T on VT and source on PL

| | | |
|---|---|---|
| 0 | T | |
| 1 | T | 2 |
| 2 | T | 8 |
| 3 | | |
| 4 | T | 2 |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | T | 0 |
| 9 | T | 8 |

(5)

$\{9, 1, 4\} \rightarrow \{1, 4\}$

dequeue 9 and enqueue its unvisited neighbors. (no in this case)

(6) $\{1, 4\} \rightarrow \{4, 3, 7\}$

dequeue 1 and enqueue its unvisited neighbors

| | | |
|---|---|---|
| 0 | T | |
| 1 | T | 2 |
| 2 | T | 8 |
| 3 | T | 1 |
| 4 | T | 2 |
| 5 | | |
| 6 | | |
| 7 | T | 1 |
| 8 | T | 0 |
| 9 | T | 8 |

(7) {4, 3, 7} → {3, 7}
dequeue 4 and enqueue its unvisited neighbors (no one in this case)

(8) {3, 7} → {7, 5}
dequeue 3 and enqueue its unvisited neighbors

| | | |
|---|---|---|
| 0 | T | |
| 1 | T | 2 |
| 2 | T | 8 |
| 3 | T | 1 |
| 4 | T | 2 |
| 5 | T | 3 |
| 6 | | |
| 7 | T | 1 |
| 8 | T | 0 |
| 9 | T | 8 |

(9) {7, 5} → {5, 6}
dequeue 7 and enqueue its unvisited neighbors

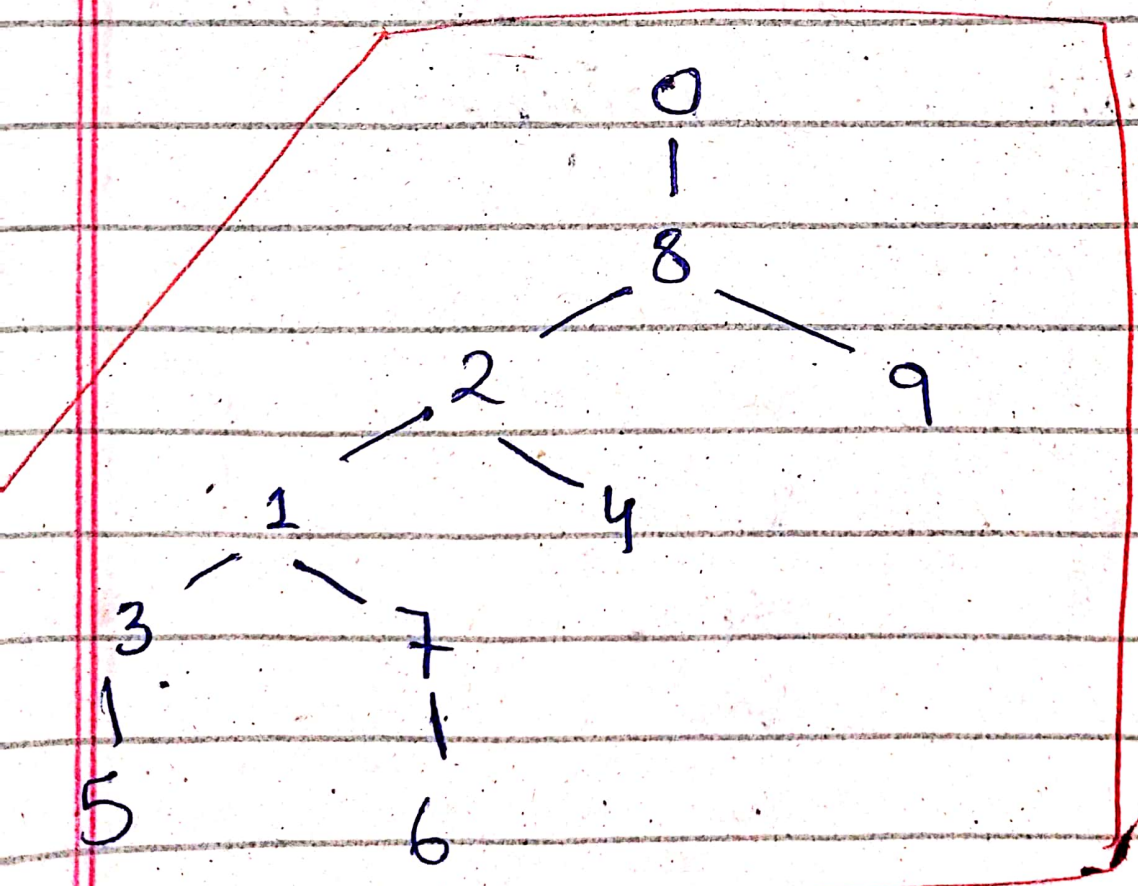
| | | |
|---|---|---|
| 0 | T | |
| 1 | T | 2 |
| 2 | T | 8 |
| 3 | T | 1 |
| 4 | T | 2 |
| 5 | T | 3 |
| 6 | T | 7 |
| 7 | T | 1 |
| 8 | T | 0 |
| 9 | T | 8 |

(10) {5, 6} → {6}

dequeue 5 and " "
(no one in this case)

(11) {6} → { }

dequeue 6 and " "
no one in this case




tree confirm