15 Lecture - CS301

Important Subjective

- What is level-order traversal of a binary tree? Answer: Level-order traversal is a technique used to traverse a binary tree in which nodes are visited level by level, from top to bottom and from left to right.
- 2. **How can level-order traversal be implemented?** Answer: Level-order traversal can be implemented using a queue data structure.
- 3. What is the time complexity of level-order traversal? Answer: The time complexity of level-order traversal is O(n), where n is the number of nodes in the binary tree.
- What is the space complexity of level-order traversal? Answer: The space complexity of level-order traversal is O(n), where n is the number of nodes in the binary tree.
- 5. **Can level-order traversal be used to find the minimum depth of a binary tree?** Answer: Yes, level-order traversal can be used to find the minimum depth of a binary tree.
- 6. **Can level-order traversal be used to find the maximum depth of a binary tree?** Answer: Yes, level-order traversal can be used to find the maximum depth of a binary tree.
- 7. Can level-order traversal be used to sort the nodes in a binary tree? Answer: No, level-order traversal cannot be used to sort the nodes in a binary tree.
- 8. Can level-order traversal be used to find the lowest common ancestor of two nodes in a binary tree?

Answer: Yes, level-order traversal can be used to find the lowest common ancestor of two nodes in a binary tree.

- What is the advantage of level-order traversal? Answer: The advantage of level-order traversal is that it can be used to find the shortest path between two nodes.
- What is the disadvantage of level-order traversal? Answer: The disadvantage of level-order traversal is that it requires more memory than other traversal techniques.