Data Structures and Algorithms

Agenda

- Topological Order
- Graph Applications
- Tree Interview Questions
  - Largest Common Ancestor
  - Spiral Printing Tree
  - Levelwise Traversal
  - Is Complete BST: All Leaf Nodes at the Same Level?
  - Is Strict BST: Each Non-Leaf Node has two Child Nodes?
- Multiway Tree concept
- Trie
- ~~Tower of Hanoi~~
- ~~Longest Palindrome SubString~~

Topological Order

- Graph is non-linear data structure.
- Topological Order is a Linear ordering of Graph vertices so that for each edge u->v, u is before the v (in the order).

Graph Applications

- Website Traversal (Python)
- Shortest Distance in Pune Bus Map (Java)

Tree Interview Questions

- Nearest/Largest Common Ancestor
- Spiral Printing Tree
- Levelwise Traversal
- Is Complete BST: All Leaf Nodes at the Same Level?
- Is Strict BST: Each Non-Leaf Node has two Child Nodes?
- Assignment: Print all nodes on boudary.