



5. Stack

- Linear structure operating on LIFO principle.
- Accessible from the topmost element downwards.

6. FIFO (First In First Out)

- Data access method: first stored, first retrieved.

7. Queue

- Linear structure operating on FIFO principle.
- Opposite of stack in element removal order.

8. Binary Trees

- Linked list extension with a maximum of two child nodes.
- Comprises a left and a right node.

9. Recursion

- Function calling itself until a terminating condition.
- Utilizes LIFO, thus leveraging the stack structure.

10. OOPs Concepts

- Object-Oriented Programming System.
- Core concepts: Objects, Classes, Inheritance.

11. OOPs Key Concepts

- Object: Real-world entity with state and behavior.
- Class: Blueprint for object creation.
- Inheritance: Object gains properties/behaviors of a parent.
- Polymorphism: Task execution in multiple ways.
- Abstraction: Hides internal details, shows functionality.
- Encapsulation: Code and data bundled into a unit.

12. Binary Search Tree

- Efficient data retrieval structure.
- Left sub-tree: nodes with keys less than the node's key.
- Right sub-tree: nodes with keys greater or equal.

13. Doubly Linked Lists

- Nodes linked in both directions.
- Allows bidirectional traversal.

14. Graph

- Contains a set of ordered pairs (edges or arcs).
- Connects nodes to store and retrieve data.

15. Linear vs Non-Linear Structures

- Linear: Adjacent data elements.
- Non-Linear: Data elements connect to multiple others.

16. Deque (Double-Ended Queue)

- Elements inserted/removed from both ends.

