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Course: 304: Data Structures	
Course Content	Unit 1. Introduction to data structures 1.1 Definition 1.2 Types of Data Structure
	Unit 2. Non-Primitive Linear Data Structures 2.1 Arrays – its storage structure and Operations (insertion and deletion) 2.2 Stack 2.2.1 Stack operations 2.2.2 Applications of Stack (Recursion and Polish notations) 2.3 Queue 2.3.1 Types of Queues (Simple, Circular, Double-ended and Priority) 2.3.2 Operations on Queue 2.3.3 Application of Queue (Simulation) 2.4 Linked list 2.4.1 Types of Linked lists (Singly, Doubly, Circular) 2.4.2 Operations on Linked list 2.4.3 Applications of Linked list (Polynomial manipulation)
Jun	 Unit 3. Non-Primitive Non-Linear Data Structures 3.1 Definition of Graph 3.2 Concept and Definition of Tree 3.3 Types of Binary Tree (Ordinary/Simple, Strictly and Complete Binary tree) 3.4 Operations on Binary tree (Traversals, Insertion and Deletion) 3.5 Storage representation of Binary tree (Linked, Sequential and Threaded) 3.6 Binary search tree 3.7 Application of tree (Manipulation of arithmetic expression)



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Unit 4. Searching & Sorting Techniques

- 4.1 Introduction
- 4.2 Searching Techniques (Sequential and Binary)
- 4.3 Types of Sorting Techniques (Insertion, Selection, Quick, 2-Way Merge and Bubble)

Unit 5. Balance trees

- 5.1 Introduction
- 5.2 Balance trees
 - 5.2.1 AVL tree
 - 5.2.2 2-3 tree

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