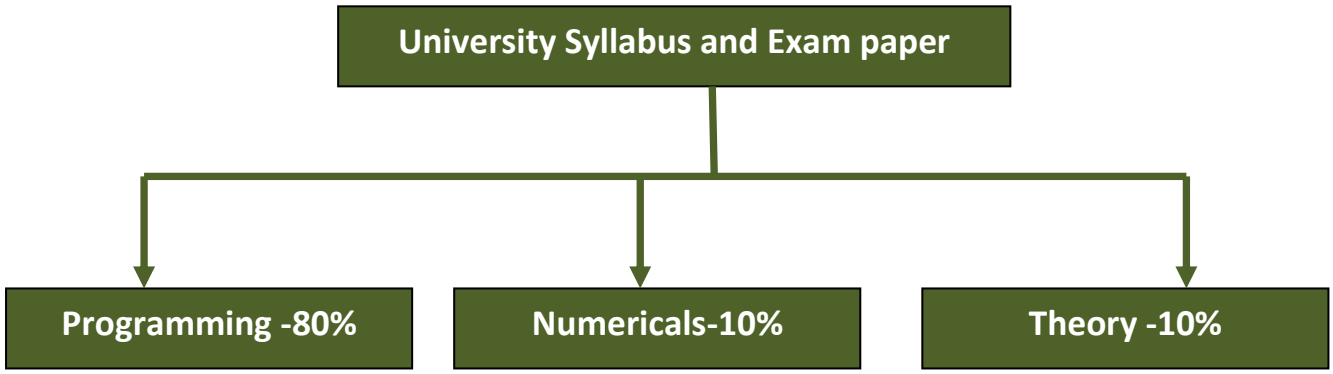
Data Structures

Live Online Lectures

(just like being in a classroom from your home or office or just anywhere)



Fees To be Paid in 2 instalments.

First 2 Lectures are Complimentary.

Total Course Fees is INR 8000/-

Course Curriculum

Part 1 : Introduction to Data Structures

- Definition Of Data Structures
- Concept of ADT
- ADT examples.

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Part 2 : Stacks and their Application

- Definition of Stack
- Push(),Pop(),Peek()
- Stack Implementation Using an Array
- Infix,Prefix and postfix Expression
- Programs for Conversion of one form of expression to another.

Part 3 : Queues and their types

- Definition of Queue
- Operations on a Queue.
- Queue implementation Using an array.
- Circular Queue and its Impementation
- DEQUE

Part 4: Linked List

- Self Referential Structure
- Linked List Implementation of Stack
- Linked List Implementation of Queue
- Linked List Implementation of Circular Queue
- Doubly Linked List and its implementation
- Polynomial addition using a Linked List

Part 5: Recursion

- Concept Of Recursion
- Programs on Recursion

Part 6: Binary Trees

- Concept Of Trees
- Types Of Tree Traversals
- Numericals on Tree Traversals.
- Implementation of Binary Tree
- Implementation Of Binary Search Trees
- Numericals on Huffman Codes
- Expression Trees
- Threaded Binary Trees
- 1- Dimensional Arrays

Part 7: Balanced Trees

- Concept of Balanced Trees.
- B-Trees
- AVL Trees
- Numerical on Balanced Trees

Part 8: Sorting Algorithms

- Bubble Sort
- Selection Sort
- Quick Sort
- Heap Sort
- Merge Sort
- Shell Sort

Part 9: Searching Algorithms

- Linear Search
- Binary Search
- Hashing
- Collision in Hashing

Part 10: Graph- Part -1

- Concept and use of Graph
- Adjacency Matrix
- BFS algorithm and its implementation
- DFS algorithm and its Implementation

Part 11: Analysis Of Algorithms

- Concept of Algorithm Analysis
- Big OH , OMEGA and THETA notations
- Numericals on OH notations.

Part 12: Graph- Part -2

- Dijkstras Algorithm
- Minimum Spanning Trees
- Kruskals Algorithm
- Prims Algorithm

Part 11: GUI programming Java Swings

- **Creating Visual Interfaces**
- **Adding components like labels,buttons,text field,combo boxes etc.**
- **Adding Actionlisteners**

Part 12: Database Programming using WAMP server and Java Swings

- Creating Databases
- Connecting Databases to Java Applications.
- Reading and Writing to Databases
- Displaying the data in tabulated Manner in the front end.
- Executing SQL queries on Databases.

Highlights OF the Course

- Complete Programs to be provides
- Numericals to be given special emphasis on.
- All codes to be made available in PDF forms.

About Junaid Khateeb

Qualification : M.E. Computer Engineering

Teaching Experience : 17 Years

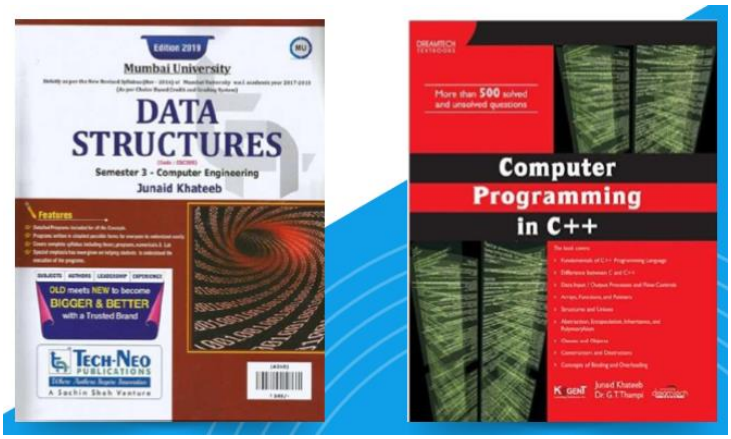
Profile: Founder of Khateeb Group of Institutes & Junkminds.com

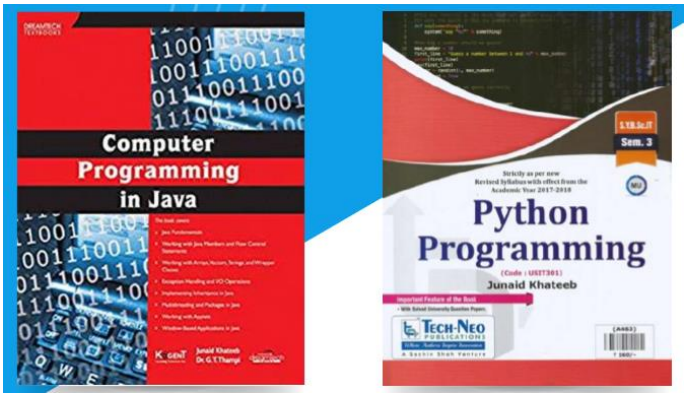
Technologies Taught: C , C++ , JAVA , Python , Machine Learning , Artificial Intelligence , R-Programmming

Concepts Taught : Object Oriented Programming,Database Management System,Operating System,Data Structures,Software Engineering,Discrete Mathematics,Analysis of Algorithms,Distributed Processing.

Number Of students trained : over 10,000 and counting.

Author of the Following books:





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