Welcome to ineuron.ai

DSA with Java

Description:

This course has been designed to help you become a complete and professional Java developer at the conclusion of the course, rather than only teaching essential Java skills. After completing this course, you will have a thorough understanding of various Data Structures and Algorithms in Java which will further enhance your career as a java developer.

Start Date:

Doubt Clear Time:

Course Time:

Features:

# Course material

# Course resources

# On demand recorded videos

# Practical exercises

# Quizzes

# Assignments

# Course completion certificate

What we learn:

# Problem Solving

# Time-based DSA

# Big O notation

# Time and space complexity

# Recursion

# Power program theory

# Combination theory

# Stacks,queues,linked lists,trees

# Searching, sorting, hashing

Requirements:

# System with minimum i3 processor or better

# At least 4 GB of RAM

# Working internet connection

# Dedication to learn

Instructor:

Name:

Hitesh Choudhary

Description:

I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

>Introduction to DSA:

>>Why we need Data structures and algorithms

>>Time based approach

>>Concept of Big O and graphs

>>Data Structures and Algorithms HB

>Problem Solving:

>>Start with a challenge - reverse string

>>Reverse a string - solution

>>Interview approach to solve a problem

>>Classic interview steps for DSA problems

>Data Structure Introduction:

>>Memory process - Stack and Heap

>>Physical and logical data structures

>>Abstract Data Types - ADT

>Recursion in depth:

>>Introduction to recursion

>>Tracing the recursion tree

>>Trace tree assignment

>>Trace tree solution

>>Types of Recursion

>>Complex recursion tree

>>What is Factorial

>>DSA08 Factorial program in JAVA

>>Fibonacci series THEORY

>>Fibonacci series and its version JAVA Code

>>What is Power Program

>>Power Program JAVA code

>>What is a Combination Program

>> Combination Program JAVA code

>>Classic Tower of Hanoi problem

>> Classic Tower of Hanoi JAVA code

>Linked List in depth:

>> Introduction to Linked List

>> Add value in linked list - cases

>> Push Append and insert in LinkedList - JAVA code

>>Deletion of linked list THEORY.

>> Deletion in linked list JAVA code

>> Delete complete linked list JAVA code

>>Count all nodes in linkedlist JAVA code

>> Reversing a linked list THEORY

>> Reversing a linked list JAVA code

>Circular Linked List in Depth:

>>Circular linked list THEORY

>>Circular Linked List push JAVA code

>>Traverse a circular linked list JAVA code

>> Deletion in circular linked list JAVA code

>> count nodes in circular linked list JAVA code

>> convert linked list to circular linked list JAVA code

>Doubly Linked List in Depth:

>> Theory for doubly linked list

>> Doubly linked list push JAVA code

>> Insert After in doubly linked list JAVA code

>> add to last in doubly linked list JAVA code

>> Traverse a doubly linked list JAVA code

>>Deleting a node in doubly linked list JAVA code

>Stack and Queue:

>> Stack - Push and Pop operation THEORY

>> Stack operations with JAVA code

>>Queue concept THEORY

>>Queue implementation in JAVA code

>> Circular queue THEORY

>> Circular queue JAVA code

>Binary Search Tree:

>> What is Binary Search tree and creation THEORY update

>>Insertion and Deletion in BST THEORY

>> InOrder Traversal of BST THEORY

>> Pre Order traversal in BST THEORY

>> Post order traversal in BST THEORY

>> Creating a Binary Search tree JAVA code

>> search a key in BST JAVA code

>> Insertion in BST JAVA code

>>deletion of key in BST JAVA code

>> inorder preorder and postorder traversal in BST JAVA code

>Hashing:

>> What is Hashing THEORY

>> Hash chaining with linked list

>> Linear Hash Shifing

>>Square hash shifting

>AVL Tree:

>> What is AVL tree and height

>>Finding balance factor

>>Left Left and Right Right Rotation in AVL Tree

>> LR and RL rotation with 1 trick

>>Creating a AVL tree - Important

>>Deletion in AVL Tree.

>HEAP:

>>Heap - Max and min Heap

>>Insertion and deletion in HEAP

>Sorting algorithms:

>> Categories of sorts

>> Selection sort - Theory

>>Selection sort - Java Code

>> Bubble Sort - Theory

>>Bubble Sort - Java Code

>> Insertion sort - Theory

>> Insertion sort - Java Code

>> Quick Sort - Theory

>>Quick Sort - Theory part 2

>>Counting Sort - Theory

>>Merge Sort Theory

>>Merge sort JAVA code

>>Counting Sort - Java Code