Core Java & advance java 3 month Syllabus:

Core Java Programming Introduction of Java:

- What is Java?
- Execution Model Of Java
- Bytecode
- How to Get Java?
- A First Java Program
- Compiling and Interpreting Applications
- The JDK Directory Structure
- Using Eclipse

Data types and Variables:

- What are data types?
- Primitive Data types & Declarations
- Variables & Types
- Numeric & Character Literals
- String formatting and Parsing
- String Literals
- Arrays, on-Primitive Data types
- Casting & Type Casting
- Widening & Narrowing Conversions
- The Dot Operator

Methods:

- What are Methods?
- Method Structure
- Declaration Of Methods
- Calling Of Methods
- Defining Methods

Operators and Expressions:

- Expressions
- Assignment Operator
- Arithmetic Operators
- Relational Operators
- Logical Operators
- Increment and Decrement Operators
- Operate-Assign Operators (+=, etc.)
- The Conditional Operator
- Operator Precedence

Control Flow Statements:

- What are Control Flow Statements?
- Conditional (if) Statements
- Adding an else if
- Conditional (switch) Statements

While and do-while Loops:

- for Loops
- while Loop
- The continue Statement
- The break Statement

Object-Oriented Programming:

- Concept & Syntax Of Class
- Concept & Syntax Of Methods
- Fields and Methods
- Constructors & Destructors
- Access Specifiers

Objects and Classes:

- Defining a Class
- Creating an Object
- Accessing Class Members
- Instance Data and Class Data
- Defining Methods
- Constructors
- Access Modifiers

Inheritance:

- Inheritance in Java
- Why use Inheritance?
- Types Of Inheritance
    - Single Inheritance
    - Multi-level Inheritance
    - Hierarchical Inheritance
    - Hybrid Inheritance
- Method Overloading
- Method Overriding
- super keyword

Java Files and I/O:

- What is a Stream?
- Reading and Writing to Files (only txt files)
- Input and Output Stream
- Manipulating input data
- Reading Lines
- Opening & Closing Streams
- Predefined Streams

- File handling Classes & Methods
- Using Reader & Writer classes

Interfaces and Abstract Classes:

- What is an Interface
- Defining Interfaces
- Separating Interface and Implementation
- Implementing and Extending Interfaces
- Abstract Classes

Packages:

- What is a Package?
- Advantages of using a Package
- Types Of Packages
- Naming Convention
- Steps For Creating Packages
- The import Statement
- Static Imports
- CLASSPATH and Import
- Defining Packages
- Package Scope

Exception Handling:

- Exceptions Overview
- Exception Keywords
- Catching Exceptions
- The finally Block
- Exception Methods
- Declaring Exceptions
- Defining and Throwing Exceptions
- Errors and Runtime Exceptions

- Assertions

Threads:

- Introduction to Threads
- Threaded Applications
- Creating threads
- Lifecycle Of A Thread
- Phases of Thread life cycle
- Runnable Interface
- Priority Of Threads

Swing:

- Introduction To Swing
- Swing Features
- Hierarchy Of Java Swing Classes
- Swing GUI Components
- Packages Used In Swing
- AWT v/s Swing
- Event Handling In Swing
- Event Listener Interfaces

Applet:

- Introduction to Applet
- The Applet Hierarchy
- Life Cycle of an Applet
- Lifecycle Methods for Applet
- A "Hello World" Applet

JDBC:

- Introduction To JDBC

- JDBC Architecture
- Types Of JDBC Drivers & Differences
- Common JDBC Components
- Importing Packages
- Registering JDBC Drivers
- Opening Connection
- Connecting a Java program to a Database
- Executing Query
- Statement Class & Objects
- Getting Information from Database
- Obtaining Result Set Information
- DML Operations through JDBC

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