

Java 8 and OOPs Course Content

- Introduction to Java
 - History of Java
 - Features of Java
 - Setting up Java Development Environment
- Object-Oriented Programming Concepts
 - Classes and Objects
 - Inheritance
 - Polymorphism
 - Encapsulation
 - Abstraction
- Core Java Concepts
 - Data Types and Variables
 - Operators
 - Control Statements
 - Arrays
 - Strings
- Advanced OOPs Concepts
 - Interfaces and Abstract Classes
 - Inner Classes
 - Packages and Access Modifiers
 - Exception Handling
- Java 8 Features
 - Lambda Expressions
 - Stream API
 - Functional Interfaces
 - Default and Static Methods in Interfaces
 - Optional Class
 - New Date and Time API

- Java Collections Framework
 - List, Set, Map Interfaces
 - Collections Class
 - Generics
 - Comparable and Comparator Interfaces
- Multithreading and Concurrency
 - Introduction to Multithreading
 - Thread Life Cycle
 - Creating Threads
 - Synchronization
 - Concurrency Utilities
- File I/O and Serialization
 - File Handling
 - Byte Stream and Character Stream
 - Object Serialization
- Networking in Java
 - Basics of Networking
 - InetAddress
 - Socket Programming
 - URL and HttpURLConnection
- Java Database Connectivity (JDBC)
 - Introduction to JDBC
 - JDBC Drivers
 - Connecting to Database
 - CRUD Operations
 - PreparedStatement and CallableStatement
- Building GUI Applications with JavaFX
 - Introduction to JavaFX
 - JavaFX Basics
 - Event Handling
 - Layouts and UI Controls

