

JAVA PROGRAMMING

Module-1

Introduction to JAVA

- Java Installation / Java Environment Setup
- Program Structure
- Data Types
- Variables
- Operators
- Decision Making Statements
- Loop Statements
- Numbers and Strings
- Array
- Methods – User defined Methods
- Built-in Methods

Module-II

Object Oriented Programming

- Classes and Objects
- Data Hiding
- Inheritance
- Encapsulation
- Polymorphism
- Abstract Classes and Interfaces

Module-III

Recursion

- Fundamentals of Recursion
- Iteration to Recursion
- Recursion with Numbers
- Recursion with Strings
- Recursion with Arrays
- Recursion with Data Structures

Module-IV

Java Multithreading

- The Basics
- Multithreading in Java
- Java Thread Basics

Module-V

Java Collections

- Introduction
- Array List
- Linked List
- CopyOnWriteArrayList
- HashSet, HashMap, TreeSet, TreeMap
- Linked Hash Map
- Additional Map Implementations
- Arrays
- Collections class

Module-VI

New Features in Java 8

- Introduction
- Taste of lambdas
- Stream API
- Java 8 Concurrency API Improvements
- Java Time API

PROJECTS