Basic Java

Day 1: Introduction to Java

- Introduction to Java programming language
- Setting up Java Development Environment (JDK, IDE)
- Writing your first Java program
- Understanding basic syntax (variables, data types, operators)
- Control flow statements (if-else, switch-case, loops)
- Introduction to methods and functions
- Hands-on exercises to practice concepts learned

Day 2: Object-Oriented Programming (OOP) Basics

- Understanding classes and objects
- Constructors and instance variables
- Encapsulation and access modifiers
- Inheritance and polymorphism
- Method overriding and overloading
- Practice exercises to reinforce OOP concepts

Day 3: Arrays and Strings

- Introduction to arrays
- Array manipulation and traversal
- Introduction to Strings
- String manipulation methods
- Using arrays and strings in real-world scenarios
- Practice exercises

Day 4: Exception Handling and File I/O

- Understanding exceptions and error handling
- try-catch blocks and exception propagation
- Introduction to File I/O in Java
- Reading from and writing to files
- Practice exercises

Day 5: Basic Java Libraries and Project Work

- Introduction to Java Standard Library
- Overview of commonly used Java libraries (java.util, java.lang, etc.)
- Project work: Implement a small-scale application or program using concepts covered throughout the week

Additional Topics – Introduction to JDBC & Multithreading