



TechCareers

JAVA PROGRAMMING

SYLLABUS

208 TECH CARRERS

COURSE CONTENT

1. Java History

- 1.1 Introduction to Java
- 1.2 Features of Java

2. Java Basics

- 2.1 Data Types
- 2.2 Statements
- 2.3 Operators
- 2.4 Control Statements
- 2.5 Java Programming Basics
- 2.6 Type Casting
- 2.7 Java Arrays
- 2.8 Command-line Arguments
- 2.9 Packages

3. Object-Oriented Programming (OOP)

- 3.1 Data Abstraction
- 3.2 Encapsulation
- 3.3 Polymorphism
- 3.4 Inheritance
- 3.5 Class and Object
- 3.6 Abstract Classes
- 3.7 Interfaces
- 3.8 Overloading and Overriding
- 3.9 Super and Super()

4. Exception Handling

- 4.1 Exception Handling Fundamentals
- 4.2 Exception Types
- 4.3 Try – catch – Finally Blocks
- 4.4 Throw and throws Keywords
- 4.5 Creating Custom Exceptions

5. Default Package Features – java. Lang

- 5.1 The java. Lang Package Overview
- 5.2 The Object Class
- 5.3 Wrapper Class
- 5.4 System Class
- 5.5 Math Class
- 5.6 String & String Buffer

6. Java Streams – java.io

- 6.1 Streams Overview
- 6.2 Byte Streams vs Character Streams
- 6.3 Input / Output Streams
- 6.4 Reading / Writing from / to files – The File Streams

7. Multithreading

- 7.1 Creating a Thread
- 7.2 Thread Life Cycle
- 7.3 Multi-Threading Advantages
- 7.4 Multi – Threading Advantages
- 7.5 Runnable Interface
- 7.6 Thread Communication

8. Java Collections – java.util

- 8.1 Collections Overview
- 8.2 Collections Interface
- 8.3 List , Set , Map Interfaces
- 8.4 List Implementation
- 8.5 Set Implementation
- 8.6 Map Implementation
- 8.7 Date and Calendar Classes

9. Java 8 FEATURES

- 9.1 Lambda Expressions
- 9.2 Method References
- 9.3 Functional Interfaces
- 9.4 Stream API
- 9.5 Stream Filter
- 9.6 Interface Changes – Introduction of Default and Static Methods
- 9.7 forEach Method
- 9.8 Stream Collectors Class

