



(A Venture of Chandigarh ETC Services Pvt. Ltd.)

An ISO 9001:2015 Certified Organisation with Completely Online Management System

Website : www.citcchandigarh.com

Course Syllabus: Core Java

Batch Name: Core Java

Eligibility: 10th

Course Start: 1st of Every Month

Course Duration: 45 Hours

Courses / Modules Paper

Papers 1
Core java

Module 1:

1: Introduction of Java

- 1.1 Introduction
- 1.2 History
- 1.3 Introduction to JVM, JDK and JRE
- 1.4 Writing first program: hello world
- 1.5 Understanding the structure and syntax of Java
- 1.6 Java programming style

- 5.3 Member Accessing
- 5.4 Super Keyword and This Keyword
- 5.5 Overloading and Overriding
- 5.6 Final Keyword
- 5.7 Abstraction
- 6.8 Encapsulation

10: Multithreading

- 10.1 Introduction
- 10.2 Life cycle of threads
- 10.3 Creating threads
- 10.4 Thread scheduler
- 10.5 Sleeping a thread
- 10.6 Joining a thread
- 10.7 Thread Priority
- 10.8 Thread pooling
- 10.9 Thread Group
- 10.10 Garbage Collection
- 10.11 Runnable Class

2: Principle of OOP

- 2.1 Introduction to OOP
- 2.2 OOP vs Procedural oriented programming
- 2.3 objects
- 2.4 Classes
- 2.5 Encapsulation
- 2.6 Abstraction
- 2.7 Polymorphism
- 2.8 Inheritance
- 2.9 Applications of OOP

6: Packages

- 6.1 Introduction
- 6.2 Defining a Package
- 6.3 ClassPath
- 6.4 Importing a package
- 6.5 Qualified Path
- 6.6 Unqualified Path
- 6.7 Access Specifier

7: Interfaces

- 7.1 Introduction
- 7.2 Member Access
- 7.3 Defining Interface
- 7.4 Multiple Inheritance using Interface
- 7.5 Hybrid Inheritance using Interface

3: Java Fundamentals

- 3.1 Introduction
- 3.2 Variables
- 3.3 Data types
- 3.4 Operators
- 3.5 Expressions
- 3.6 Control Structure

8: String Handling

- 8.1 Introduction
- 8.2 Immutable String
- 8.3 String comparison
- 8.4 String Concatenation
- 8.5 Substring
- 8.6 Methods of String class
- 8.7 StringBuffer class
- 8.8 StringBuilder class
- 8.9 Creating Immutable class
- 8.1 toString method

4: Classes and Object

- 4.1 Introduction
- 4.2 Declaring a Class
 - Data members
 - Member function
 - Private and public members
 - Accessing member functions
- 4.4 Objects
 - Creating an object
 - Accessing members using objects
- 4.5 Method overloading

9: Exception Handling

- 9.1 Introduction
- 9.2 Throwable Class
- 9.3 try and catch block
- 9.4 Multiple catch Block
- 9.5 Nested try statement
- 9.6 finally block
- 9.7 throw keyword
- 9.8 throws keyword
- 9.9 Exception handling with method overriding
- 9.10 User define exception

5: Inheritance

- 5.1 Introduction
- 5.2 Types of Inheritance
 - Single inheritance
 - Multilevel Inheritance
 - Hierarchical inheritance