CENTRAL TOOL ROOM & TRAINING CENTRE, BHUANESWAR

Lesson Plan for Short term Courses

Ministry of Micro, Small and Medium Enterprises
Government of India

SUBJECT: CORE JAVA **DURATION: 30 DAYS** **PER DAY: 3hrs**

Course Fees: **5100/-**

(Reservation as per Govt.of India Rules for SC/ST Candidates no fee will be charged for short NSQF Courses)

Eligibility: Any Graduate/Diploma/Engineering

OBJECTIVE:

At the end of Session Participants Should Know:

* Creation of object-oriented programs with Java classes.
* Learn how to design and program in Java.

Day	Contents
Day 1	➢ Introduction to CTTC. ➢ Self-introduction and interaction ➢ Introduction to programming language
Day 2	➢ Software installation guidance. ➢ Introduction to procedural language, OOPS & Structured oriented language. ➢ Introduction to java. ➢ History of Java.
Day 3	➢ JVM Architecture ➢ Language Fundamentals 1. Identifier 2. Keywords 3. Data types 4. Literals 5. Arrays 6. Types of Variables 7. main(-) method 8. Java coding standards
Day 4	➢ Message based programming using JAVA ➢ Process to perform Compilation & execution
Day 5	➢ Operators and Assignments 1. Increment & Decrement Operator 2. Arithmetic Operator 3. Relational Operator 4. Equality Operator 5. Instance of Operator 6. Bitwise Operator

	7. Short circuit Operator 8. Type cast Operator 9. Assignment Operator 10. Conditional Operator 11. New Operator 12. [] Operator
Day 6	➢ Concept of Scanner class & its methods. ➢ Formula based program using Java.
Day 7	➢ Flow Control 1. If Statements(if, else..if, nested if) 2. Switch Statement
Day 8	➢ Flow Control Iterative Statement(for, while, do..while)
Day 9	➢ Class, Objects, Method ➢ 6 types of concept for declaring class, object & method. ➢ Parameterize method
Day 10	➢ Constructor ➢ Types of constructor ➢ Static methods ➢ Non static methods
Day 11	➢ Inheritance & types of inheritance ➢ Constructor using inheritance
Day 12	➢ Method Overloading ➢ Method Overriding
Day 13	➢ This keyword ➢ Super keyword ➢ Parameterize constructor using inheritance ➢ Command line argument.
Day 14	➢ Abstract method ➢ Abstract class ➢ Properties of abstract class & abstract methods. ➢ Program using abstract method.
Day 15	➢ Interface ➢ Multiple inheritance using interface
Day 16	➢ Package ➢ Programming using package concepts.
Day 17	➢ Exception Handling ➢ Types of exceptions ➢ Uses of try, catch, throw, throws, finally, final & finalize()
Day 18	➢ Array ➢ Program using array.
Day 19	➢ String ➢ Program using string

Day 20	➢ Multithreading 1. Introduction 2. Thread initiation 3. Getting & Setting name of thread 4. Thread priorities 5. Methods to prevent Thread Execution
Day 21	➢ Java.awt package ➢ Event Handling
Day 22	➢ APPLET Programming
Day 23	➢ Examination, Review, Feed Back Session &Validation.
Day 24	➢ Certification