JAVA PROGRAMMING INTRODUCTION

Course number : 103

Overview

Reliability, maintainability, and ease of development is what Java is known for, and its unique architecture enables programmers to develop a single application that can seamlessly run across multiple platforms. In this training course, you gain extensive hands-on experience writing, compiling, and executing Java programs, and building robust applications that use Java's object-oriented features.

What you'll learn

- Design and build robust, object-oriented applications
- Organize complex data using Java collections
- Access any relational database using JDBC
- Read/write files and handle exceptions

Who should attend

Pre-requis

- Three to six months of experience in a high-level programming language, such as C, Pascal, or Visual Basic
- You should know how to:
    - Structure data
    - Use variables, flow-control statements, and subroutines
    - Write, compile, and execute a program

RECOMMENDED EXPERIENCE:

- Familiarity with web technologies and object concepts

Outline

Introduction to Java Programming

- Stand–alone applications and servlets
- Compiling source code into bytecode
- Overview of class libraries

Object–Oriented Programming with Java

The object paradigm

- Encapsulation, inheritance and polymorphism
- OO analysis and design: "Is a" and "Has a"
- Designing an OO application step by step
- Diagramming object structure with Unified Modeling Language (UML)

Java's object–oriented features

- Instantiating objects from classes
- Aggregation and composition
- Extending existing classes
- Overloading and overriding methods

Structure of the Java Language

Language syntax

- Declaring and initializing variables
- Declaring and using arrays
- Upcasting, downcasting and autoboxing

Flow control

- Invoking methods and passing parameters
- Conditionals and loops
- Handling exceptions with try and catch

Defining classes

- Fields (instance data)
- Methods (functions)
- Abstract classes and interfaces
- Organizing classes with packages and modifiers
- Composition vs. inheritance

Building the components of a Java program

- Leveraging generics with the collections API
- Developing new classes
- Compiling and debugging

Developing GUIs

Foundations of user interfaces

- Basic GUI widgets
- Event–driven programming
- Benefits of a portable windowing library

Java Foundation Classes (JFC)

- Creating Swing components
- Adding Swing components to containers
- Arranging Swing components using layout managers
- Dialogs and message boxes

Event handling

- Registering event handlers
- Inner classes and top–level classes

Storing and Retrieving Data with File I/O

Java streams

- Streams, Readers and Writers
- Catching and throwing exceptions
- Formatting text output

Files and directories

- Reading and writing files
- Creating, deleting and renaming files
- Obtaining directory and file information

Working with Relational Databases

JDBC database access

- Leveraging the JDBC API
- Choosing database drivers
- Connecting to a database

Improving performance with prepared statements and stored procedures

- Submitting SQL statements
- Retrieving and processing results

Java Development Tools

- Java Development Kit (JDK)
- Compiler (javac)
- Javadoc utility
- Java Archive (JAR) utility
- Java Integrated Development Environments (IDEs)

Schedule

Location	Dates	Status
Montreal	Nov 20, 2017 - Nov 27, 2017 08:00 AM - 05:00 PM	Available Register Now >>

Tuition

IN CLASSROOM OR ONLINE PRIVATE TEAM TRAINING

STANDARD	**$3895**
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Certification

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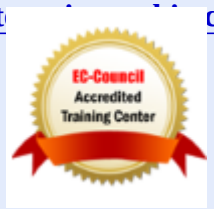

Cyber Security

Networking & Wireless

Business Analysis

IT Service Management

Data Center

Cloud Computing

Project Management

Java Programming