English Delivery Only: Java Programming 1 / Java Developer

Duración: 5 Días   Código del Curso: JAVA1   Método de Impartición: Curso Remoto (Virtual)

Temario:

*** Course delivered in English (UK) ***Java Programming 1 / Java Developer Course Overview

Java is everywhere and is as popular as ever. This hands-on course,delivered using Java 17,endeavours to provide the fundamental skills you need to become a Java Developer. We'll have you build a series of realistic apps focusing on object-oriented principles from the start.
Note that this is not a beginners course. You are expected to be familiar with programming concepts and have a little coding experience. If not you should consider our Introduction to Programming - Java course instead.
Similarly,the course is targeted to closely follow the official Oracle Java curriculum for certification.
Exercises and examples are used throughout the course to give practical hands-on experience with the techniques covered.

Curso Remoto (Abierto)

Nuestra solución de formación remota o virtual, combina tecnologías de alta calidad y la experiencia de nuestros formadores, contenidos, ejercicios e interacción entre compañeros que estén atendiendo la formación, para garantizar una sesión formativa superior, independiente de la ubicación de los alumnos.

Dirigido a:

Who will the Course Benefit?

The Java Programming 1 / Java Developer course is aimed at anyone with a little coding experience seeking to become a Java Developer,and existing developers seeking to migrate to Java.

Objetivos:

- Course Objectives

- This course aims to provide the delegate with the skills needed to build object-oriented apps using Java that exploit all of the fundamental elements of the language.

Prerequisitos:

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Delegates attending this course should be able to define general programming concepts including compilation and execution,variables,arrays,sequence,selection and iteration,navigate the filesystem (on the command line ideally),edit and save text files and browse the web. This knowledge can be obtained by attendance on the pre-requisite Introduction to Programming - Java course.

Siguientes cursos recomendados:

Further Learning

- Java Programming 2 / Java Advanced Developer
- Unit Testing with JUnit
- Core Spring (4 day)
- Developing Applications with Java EE
- Design Patterns in Java

Contenido:

Java Programming 1 / Java Developer Training Course Course Contents - DAY 1

Course Introduction

- Administration and Course Materials
- Course Structure and Agenda
- Delegate and Trainer Introductions

Session 1: PLATFORM,APP STRUCTURE,; BASIC IO

- The Java language
- The Java platform
- App structure incl. modules,packages,and classes (brief)
- The main method
- Reading from stdin and writing to stdout
- Reading from and writing to a text file
- Compilation and execution

Session 2: CLASSES ; OBJECTS

- What is an object
- What is a class
- Object-oriented apps
- Classes
- Fields
- Constructors
- Methods
- Objects
- Instantiation
- Getting and setting fields
- Calling methods

Session 3: VARIABLES ; STANDARD DATA TYPES

- Instance fields
- Default values
- Local variables incl. parameters
- Primitives
- Literals
- Default types
- Casting
- References
- Arrays (brief)
- Strings (brief)
- Primitive wrappers
- Constants
- Type inference
- Varargs
- Naming conventions   Java Programming 1 / Java Developer Training Course Course Contents - DAY 2

Session 4: DECISIONS ; LOOPS

- Relational and conditional operators
- If statements
- Switch statements
- Switch expressions

Session 5: ESSENTIAL COLLECTIONS

- What is an array
- List vs. array
- Map vs. list
- Generic classes (brief)
- Arrays
- Declaration and initialisation
- Setting and getting elements
- Sizing
- Iterating
- Multi-dimensional arrays
- Command line arguments
- The ArrayList and HashMap classes
- Imports
- Adding elements incl. autoboxing
- Membership testing
- Accessing elements
- Changing elements
- Removing elements
- Sizing
- Iterating

Session 6: STATIC MEMBERS ; ENUMS

- What does it mean to be static
- Static fields
- Static methods
- Static context
- Static imports
- Enums

Session 7: NUMBERS ; MATHS

- Strings to numbers
- Arithmetic and unary operators
- The Math class
- The BigDecimal class
- Number formatting   Java Programming 1 / Java Developer Training Course Course Contents - DAY 3

Session 8: STRINGS ; REGEX

- What is a String
- Immutable objects
- The String Pool
- Strings
- Creation
- Escape characters
- Concatenation
- Text blocks
- Format Strings
- Length
- Transformative methods
- Search methods
- Comparative methods
- Java 11 methods
- StringBuilder
- Pattern matching
- Regular expressions
- The Pattern and Matcher classes

Session 11: COMPOSITION ; AGGREGATION

- What is composition
- What is aggregation
- Composite associations
- Aggregate associations
- Constructor injection (mandatory)
- Setter injection (optional)
- The problem with getter methods (refs. vs. copies)

Session 12: INHERITANCE,ABSTRACTION,; POLYMORPHISM

- What is inheritance
- The purpose of inheritance
- Extending a superclass
- Shadowing
- Overriding
- Subclass constructors
- The super keyword
- Inheritance polymorphism
- Upcasting and downcasting
- The instanceof operator
- Final classes and methods
- Sealed classes
- The Object class incl. toString,hashCode,and equals (brief)
- What is abstraction
- The purpose of abstraction
- Abstract classes and methods
- Extending an abstract class
- Interfaces
- Implementing one or more interfaces
- Extending and implementing
- Interface polymorphism
- Interface default,static,and private methods   Java Programming 1 / Java Developer Training Course Course Contents - DAY 5

Session 13: MODERN FILE IO

- What is a stream
- The different types of stream
- The Path class
- Reading all bytes/lines from a file
- Writing all bytes/lines to a file
- Reading from a file using a buffered stream
- Writing to a file using a buffered stream
- Parsing a file using a Scanner

Session 14: MODULES

- What is a module
- Module descriptor
- Module requires and exports
- Compiling a module
- Using jdeps to determine a module's dependencies
- Compiling a module that requires other

- The ternary operator
- While loops
- For loops (both kind)
- Branching statements (break,continue,return)

Session 9: EXCEPTION HANDLING

- What is an exception
- Checked vs. unchecked exceptions
- Exceptions and the call stack
- Try,catch,and finally
- Handling multiple exception types
- Try with resources
- Throwing exceptions
- Custom exceptions (brief)

Session 10: ENCAPSULATION

- What is encapsulation
- Access modifiers
- Private fields and public methods
- Getters and setters
- Constructors (for controlling instantiation)
- The this keyword
- Records   Java Programming 1 / Java Developer Training Course Course Contents - DAY 4

modules
- Executing a module
- Using jlink to build a custom JRE

Session 15: BASIC JDBC

- What is JDBC
- Loading the driver
- Establishing a connection
- AutoCommit
- Transaction management
- Creating a statement
- PreparedStatement
- CallableStatementt
- Batch updates
- Executing a query/update
- Processing a ResultSet
- Type
- Concurrency
- Holdability
- Closing resources

Más información:

Para más información o para reservar tu plaza llámanos al (34) 91 425 06 60

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