



Dominio de APIS Java 7

Duración: 3 días (24 hrs)

Descripción general

Curso avanzado sobre el uso y aplicación del lenguaje java y sus API de desarrollo, contempla la enseñanza de la estructura y funcionamiento del lenguaje.

Objetivos

Al término del curso serás capaz de aplicar los conocimientos para el desarrollo de aplicaciones java y la utilización de las diferentes API que facilitan la programación en este lenguaje.

Prerrequisitos del curso

Conocimientos bsicos de Java.

Esquema del curso

MODULO I

- Introducing the Java Technology
- Relating Java with other languages
- Showing how to download, install, and configure the Java environment on a Windows system.
- Describing the various Java technologies such as Java EE, JavaME, Embedded Java SE
- Describing key features of the technology and the advantages of using Java
- Using an Integrated Development Environment (IDE)

MODULO II

- Thinking in Objects
- Defining the problem domain
- Identifying objects and recognizing the criteria for defining objects

MODULO III

- Introducing the Java Language
 - Defining classes
 - Identifying the components of a class
 - Creating and using a test class
 - Compiling and executing a test program
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MODULO IV

- Working with Primitive Variables
- Declaring and initializing field variables
- Describing primitive data types such as integral, floating point, textual, and logical
- Declaring variables and assigning values
- Using constants
- Using arithmetic operators to modify values

MODULO V

- Working with Objects
- Declaring and initializing objects
- Storing objects in memory
- Using object references to manipulate data
- Using JSE javadocs to look up the methods of a class

MODULO VI

- Using operators and decision constructs
- Using relational and conditional operators
- Testing equality between strings
- Evaluating different conditions in a program and determining the algorithm
- Creating if and if/else constructs
- Nesting and chaining conditional statements
- Using a switch statement

MODULO VII

- Creating and Using Arrays
- Declaring, instantiating, and initializing a one-dimensional Array
- Declaring, instantiating, and initializing a two-dimensional Array
- Using a for loop to process an Array
- Creating and initializing an ArrayList
- Using the import statement to work with existing Java APIs
- Accessing a value in an Array or and ArrayList
- Using the args Array

MODULO VIII

- Working with String and StringBuilder objects
 - Creating and Invoking a Method
 - Passing arguments and returning values
 - Creating static methods and variables
 - Using modifiers
 - Overloading a method
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MODULO IX

- Using Encapsulation and Constructors
- Creating constructors
- Implementing encapsulation

MODULO X

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- Declaring, instantiating, and initializing a one-dimensional Array
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MODULO XI

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MODULO XII

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- Creating constructors
- Implementing encapsulation

MODULO XIII

- Introducing Advanced Object Oriented Concepts
- Using inheritance
- Using types of polymorphism such as overloading, overriding, and dynamic binding
- Working with superclasses and subclasses
- Adding abstraction to your analysis and design
- Understanding the purpose of Java interfaces
- Creating and implementing a Java interface

MODULO XIV

- Handling Errors
 - Understanding the different kinds of errors that can occur and how they are handled in Java
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- Understanding the different kinds of Exceptions in Java
 - Using Javadocs to research the Exceptions thrown by the methods of foundation classes
 - Writing code to handle Exceptions

MODULO XV

- The Big Picture
 - Creating packages and JAR files for deployment using java
 - Two and three tier architectures
 - Looking at some Java applications examples
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