



Java SE 8 Fundamentals

- **Formato do curso:** Presencial
- **Preço:** 1585€
- **Nível:** Iniciado
- **Duração:** 30 horas

Este curso introduz a programação orientada a objectos usando a linguagem Java.

Destinatários

Para quem quer construir aplicações Java, nomeadamente:

- Application Developers
 - Developer
 - Project Manager
 - System Administrator
 - Team Leader
 - Technical Administrator
 - Technical Consultant
 - Web Administrator
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Pré-requisitos

Conhecimentos de algoritmia e programação em qualquer linguagem.

Objectivos

- Usar Java para desenvolver uma aplicação.
 - Usar métodos e ciclos para ditar fluxo do programa
 - Entender conceitos de objectos tais como herança, encapsulamento e abstracção
 - Usar tratamento de erros
 - Definir modificação de dados através de expressões lambda para a classe Collections
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Programa

What Is a Java Program?

- Introduction to Computer Programs
- Key Features of the Java Language
- The Java Technology and Development Environment
- Running/testing a Java program

Creating a Java Main Class

- Java Classes
- The main Method

Data In the Cart

- Introducing variables
- Working with Strings
- Working with numbers
- Manipulating numeric data

Managing Multiple Items

- Working with Conditions
- Working with a List of Items
- Processing a list of items

Describing Objects and Classes

- Working with objects and classes
- Defining fields and methods
- Declaring, Instantiating, and Initializing Objects
- Working with Object References
- Doing more with Arrays
- Introducing the NetBeans IDE
- Introducing the Soccer League Use Case

Manipulating and Formatting the Data in Your Program

- Using the String Class
- Using the Java API Docs
- Using the String
- Builder Class
- More about primitive data types
- The remaining numeric operators
- Promoting and casting variables

Creating and Using Methods

- Using methods
- Method arguments and return values
- Static methods and variables

- How Arguments are Passed to a Method
- Overloading a method

Using Encapsulation

- Access Control
- Encapsulation
- Overloading constructors

More on Conditionals

- Relational and conditional operators
- More ways to use if/else constructs
- Using Switch Statements
- Using the NetBeans Debugger

More on Arrays and Loops

- Working with Dates
- Parsing the args Array
- Two-dimensional Arrays
- Alternate Looping Constructs
- Nesting LoopsThe Array
- List class

Using Inheritance

- Overview of inheritance
- Working with subclasses and superclasses
- Overriding methods in the superclass
- Introducing polymorphism
- Creating and extending abstract classes
- Using Interfaces
- Polymorphism in the JDK foundation classes

Using Interfaces

- Using the List Interface
- Introducing Lambda expressions

Handling Exceptions

- Handling Exceptions: An overview
- Propagation of exceptions
- Catching and throwing exceptions
- Handling multiple exceptions and errors