Java programmer (fast track) (code: LC-JAVA-FAST)

Overview

The idea of ☐☐the course is to introduce developers of other languages ☐☐(mostly web-based, dynamic languages such as PHP, Python, Perl, Ruby, ...) not only to the syntax of Java and its basic libraries, but also to Java idioms , conventions and customs. The assumption is that the students already have at least basic programming experience; therefore the exercises focus on the important differences between Java and scripting programming languages.

Topics covered include: Java as a language and a number of important technologies in the JVM world:

— Web applications using servlets and JSP pages,
— Applications with graphical user interface (Swing), including applets,
— Connect to database data directly, and using standard JPA (ORM),
— Processing data: XML and JSON.

Classes are conducted in a Windows environment, with some elements of Linux environment. All our classes are computer-based workshops, in accordance with our motto: *"The theory can also be shown on a practical example. "*

After the course a participant will be able to:

— Write a web application in Java with a layer of logic based on the JavaBean components that connect to the database and presentation layer based on the JSP;
— Implement a web application servlet container or application server (in the classroom will be used Tomcat and Glassfish);
— Write a desktop application that contains the business user interface components (tables, forms, letters) linked to a database using cross-platform Swing;
— Write a program that uses web services that return XML or JSON;
— Use and create simple objects JPA compliant Enterprise Java Beans 3 standard.

Duration

64h

Agenda

Module 1

1. A review of object-oriented programming: classes, interfaces, inheritance, the practical consequences of duck typing and static typing.
2. A review of instructions and syntactic structures used in Java (with the exception of internal classes).
3. Naming standards (SUN convention).
4. The structure of the application, compilation, loading classes, Classloaders and CLASSPATH. Packages, code organization.
5. Writing and preparing to distribute a simple console program in Java: the structure of the JAR.
6. The "lets" philosophy: servlets, midlets, xlets, applets. Template methods.
7. Writing a simple servlet, a first introduction to threads.
8. The structure of Web applications in Java. WAR files.

Module 2
1. Standard collections in Java: collections interfaces (all), implementations (commonly used) and algorithms.
2. Components in Java: the concept of a JavaBean: features: read, write, announcement of notification.
3. JSP - fast creation of web templates.
4. Expression Language.
5. Basic taglibs.
6. JDBC: direct access to the database (for example JavaDB).
7. Direct access to the database in JSP (standard taglib sql).
8. Ant.

Module 3
1. IDE: basics of IDE Netbeans.
2. The factory and its role in statically typed languages☐☐.
3. Internal classes: theory.
4. Introduction to creating graphical user interfaces: Swing. Practical use of internal classes.
5. Model MVC in Swing. Practical application of interfaces.
6. More information about the threads. Threads in Swing.
7. Implementation of data table model (JTableModel), a simple application with a GUI.

Module 4
1. JavaBean components in Swing, create your own GUI component.
2. Fundamentals of JSR 296 (Swing Application Framework) and JSR 295 (Beans Binding), with the support of Netbeans, use BeansBinding with its own component.
3. A word about JavaFX - differences in binding between BeansBinding and JavaFX.
4. Create and distribute applets; more advanced WebStart.

Module 5
1. Input and output; operations.
2. Java and XML Java and JSON. Practical methods for parsing the data in various formats (DOM and elementary JAXB).
3. Java and annotation, JPA (part of the standard Enterprise Java Beans 3).
4. JPA and threads, using JPA in a web application.

Target audience and prerequisites

This course is intended for everyone that has at least a basic experience familiarity with any scripting language (PHP, Perl, Python, Ruby …).

Additionally, some knowledge of SQL and at least a basic familiarity with the principles of object-oriented programming are recommended.

Certificates

Course participants receive completion certificates signed by ALX.

Locations

— Warsaw (English) – Jasna 14/16A
— Online (English) – your home, office or wherever you want
— any other location (London, UK, EU) on request

Ask for details

Phone +44 203 608 6289
info@alx.training

#!/ ALX

Price

1290 EUR

The price includes:

— course materials,
— snacks, coffee, tea and soft drinks,
— course completion certificate,
— one-time consultation with the instructor after course completion.

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