XCELERATE TRAINING INSTITUTE

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INFORMATION TECHNOLOGY

Core Java SE7 Fundamentals

DURATION	LANGUAGE	FORMAT
10 days	**English**	**Classroom / Online**

Upcoming dates

Dates	Venue	Format	Fee
26 ????? – 7 ???? 2027	Live online	Online (live)	**€1?800**
3 – 14 ???? 2027	London	Classroom	**€7?200**
4 – 15 ?????? 2027	Live online	Online (live)	**€1?800**

Register or ask a question

Online: staging.x8ti.com/course/core-java-se7-fundamentals/

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Core Java SE7 Fundamentals

Introduction

This Core Java SE7 course by Xcelerate Training Institutes , previously known as Sun Certified Java Associate, equips learners with essential application development skills. Participants will master Java SE 7 fundamentals, laying the groundwork for a successful programming career. This course delves into core concepts like abstraction, encapsulation, and inheritance, enabling students to confidently design, create, and utilize Java classes. They will also gain proficiency in error handling techniques.

Learning Objectives

- Grasp Java programming fundamentals.
- Utilize loops, arrays, and data types.
- Employ decision constructs and operators.
- Apply inheritance principles.
- Implement encapsulation and methods.
- Handle exceptions effectively.

Training Methodology

A comprehensive training methodology for Core Java SE7 Fundamentals should combine theoretical instruction with hands-on practice. The curriculum should cover fundamental concepts like object-oriented programming, data types, operators, control flow statements, arrays, strings, methods, inheritance, polymorphism, encapsulation, and exception handling. The training should be delivered through a mix of lectures, code demonstrations, and practical exercises. Participants should be encouraged to actively engage in coding challenges and projects to solidify their understanding. Regular assessments and feedback sessions can help track progress and identify areas for improvement. Additionally, providing access to relevant documentation, tutorials, and online resources can facilitate self-paced learning and continuous skill development.

Benefits for Your Organisation

By investing in Core Java SE7 Fundamentals training, your organization can empower its developers with a solid foundation in Java programming, leading to increased efficiency, code quality, and innovation. This training equips developers with the essential skills to design, develop, and maintain robust Java applications, ultimately contributing to the organization's success through improved software development processes and the creation of high-quality, reliable software solutions.

Benefits for You

Benefits of Core Java SE7 Fundamentals:

- Build a strong foundation: Learn the fundamentals of Java programming, including object-oriented concepts, syntax, and data types.
- Develop real-world applications: Gain hands-on experience creating Java applications with features like error handling, loops, and conditional statements.

- Advance your career: Unlock opportunities in software development, data science, and other tech fields where Java is widely used.
- Stay relevant: Master a language that powers countless systems and applications, ensuring your skills remain in demand.

Who Should Attend

This course is designed for individuals holding L2/3 positions in data centers who specialize in Cisco Nexus switches. Participants should have a focus on configuring, implementing, and designing data center protocols such as VPC, Fabric path, and VXLAN.

Course Outline

Introducing Java Technology

- Compare Java with other programming languages.
- Set up the Java environment on a Windows system.
- Explore various Java technologies including Java EE, Java ME, and Embedded Java SE.
- Understand the key benefits and features of Java.
- Utilize an Integrated Development Environment (IDE).

Object-Oriented Thinking

- Define the problem domain.
- Identify and define objects.

Java Language Basics

- Create and utilize classes.
- Understand class components.
- Develop and run test programs.

Working with Primitive Data Types

- Declare and initialize variables.
- Employ primitive data types (integers, floating-point numbers, characters, and Booleans).
- Assign values to variables.
- Use constants.
- Perform arithmetic operations.

Working with Objects

- Declare and initialize objects.
- Manage object storage in memory.
- Manipulate data using object references.
- Refer to class methods using JSE Java Docs.
- Work with String and String Builder objects.

Operators, Decisions, and Control Flow

- Employ relational and conditional operators.
- Compare strings for equality.

- Create and use if, if-else, and nested conditional statements.
- Implement switch statements.

Arrays and Array Lists

- Declare, create, and initialize one-dimensional and two-dimensional arrays.
- Process arrays using for loops.
- Create and initialize Array Lists.
- Import and utilize Java APIs.
- Access array and Array List elements.
- Work with the rags array.

Loops

- Create while and do-while loops.
- Develop for loops.
- Use Array Lists with for loops.
- Understand variable scope.

Methods and Overloading

- Create and invoke methods.
- Pass arguments and return values.
- Create static methods and variables.
- Utilize modifiers.
- Overload methods.

Encapsulation and Constructors

- Create constructors.
- Implement encapsulation.

Advanced Object-Oriented Concepts

- Employ inheritance.
- Utilize polymorphism (overloading, overriding, dynamic binding).
- Work with super classes and subclasses.
- Apply abstraction in design and analysis.
- Understand and implement Java interfaces.

Error Handling

- Recognize and handle different types of errors in Java.
- Understand Java exceptions.
- Use Java docs to research exception handling.
- Write code to handle exceptions.

The Bigger Picture

- Create packages and JAR files for deployment.
- Explore two and three-tier architectures.
- Analyze Java application examples

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Registration Form

Core Java SE7 Fundamentals

Preferred dates: ..... Venue or online: .....

Duration: 10 days Language: .....

Please complete and email this form to us, or register online. We confirm your place and send the invoice within one working day.

Delegate information

Full name (Mr / Ms / Dr / Eng): .....

Position: ..... Telephone / mobile: .....

Official email: ..... Personal email: .....

Company information

Company name: .....

Address: .....

City / country: ..... VAT / tax number: .....

Person responsible for training & development

Full name (Mr / Ms / Dr / Eng): .....

Position: ..... Telephone / mobile: .....

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☐ Please invoice me ☐ Please invoice my company

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