Java Fundamentals

Category: Software Development & Programming | **Vendor:** Logical Operations

Duration: 24.00 hours (3 days) **19.5 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

Since its inception, Java has stormed the programming world. Its features and functionalities provide developers with the tools needed to write robust cross-platform applications. Java Fundamentals introduces you to these tools and functionalities that will enable you to create Java programs. The course begins with an introduction to the language, its philosophy, and evolution over time, until the latest release. You'll learn how the javac/java tools work and what Java packages are - the way a Java program is usually organized. Once you are comfortable with this, you'll be introduced to advanced concepts of the language, such as control flow keywords. You'll explore object-oriented programming and the part it plays in making Java what it is. In the concluding lessons, you'll be familiarized with classes, typecasting, and interfaces, and understand the use of data structures, arrays, strings, handling exceptions, and creating generics.

About This Course

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Who Should Attend

Java Fundamentals is designed for tech enthusiasts who are familiar with some programming languages and want a quick introduction to the most important principles of Java.

Learning Outcomes

Upon successful completion of this course, participants will be able to:

After completing this course, you will be able to:

Create and run Java programs

Use data types, data structures, and control flow in your code

Implement best practices while creating objects

Work with constructors and inheritance

Understand advanced data structures to organize and store data

Employ generics for stronger check-types during compilation

Learn to handle exceptions in your code

Detailed Course Outline

Introduction to Java

- The Java Ecosystem
- Our First Java Application
- Packages

Variables, Data Types, and Operators

- Variables and Data Types
- Integral Data Types
- Type casting

Control Flow

- Conditional Statements
- Looping Constructs

Object-Oriented Programming

- Object-Oriented Principles
- Classes and Objects
- Constructors
- The this Keyword
- Inheritance
- Overloading
- Constructor Overloading
- Polymorphism and Overriding
- Annotations
- References

OOP in Depth

- Interfaces
- Typecasting
- The Object Class
- Autoboxing and Unboxing
- Abstract Classes and Methods

Data Structures, Arrays, and Strings

- Data Structures and Algorithms
- Strings

The Java Collections Framework and Generics

- Reading Data from Files
- The Java Collections Framework
- Generics
- Collection

Advanced Data Structures in Java

- Implementing a Custom Linked List
- Implementing Binary Search Tree
- Enumerations
- Set and Uniqueness in Set

Exception Handling

- Motivation behind Exceptions
- Exception Sources
- Exception Mechanics
- Best Practices

Additional Course Details

Nexus Humans Java Fundamentals training program is a workshop that presents an invigorating mix of sessions, lessons, and masterclasses meticulously crafted to propel your learning expedition forward.

This immersive bootcamp-style experience boasts interactive lectures, hands-on labs, and collaborative hackathons, all strategically designed to fortify fundamental concepts.

Guided by seasoned coaches, each session offers priceless insights and practical skills crucial for honing your expertise. Whether you're stepping into the realm of professional skills or a seasoned professional, this comprehensive course ensures you're equipped with the knowledge and prowess necessary for success.

While we feel this is the best course for the Java Fundamentals course and one of our Top 10 we encourage you to read the course outline to make sure it is the right content for you.

Additionally, private sessions, closed classes or dedicated events are available both live online and at our training centres in Dublin and London, as well as at your offices anywhere in the UK, Ireland or across EMEA.

Frequently Asked Questions

Q: What delivery options are available for Java Fundamentals?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: How many CPD hours does this course provide?

The 3-day Java Fundamentals course provides up to 19.5 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Java Fundamentals training?

The training takes place over 3 day(s), with each day lasting approximately 24.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Java Fundamentals?

Yes, we provide corporate training, dedicated training, and closed classes for Java Fundamentals. Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: Why choose Nexus Human for Java Fundamentals?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Java Fundamentals training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

Nexus Human

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