

Migrating Java 17 to Java 21 | Java 21 New Features and Skills (TT2136)

Category: Software Development & Programming | **Vendor:** Trivera Tech

Duration: 8.00 hours (1 days) **6.5 CPD Hours** **Rating:** ★ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

About This Course

There have been a lot of changes in the Java programming language since the release of Java 11 in September of 2018. Migrating to Java 21 / Java 21 New Features and Skills is a one day course that focuses on the changes that will be most noticable for Java developers who will make the transition from Java 17 to Java 21.

This course blends expert instruction and practical, hands-on experience, focusing on bridging the gap between your current Java knowledge and the latest version. Understanding that many developers are now transitioning projects from older versions of Java, this course is your key to making that shift both quickly and effectively. Throughout the course, Throughout the course, you'll dive deep into Java 21's key features, such as Records for efficient data management, enhanced text manipulation with String and Text Blocks, the introduction of Sealed Classes, and the refinements in Switch Expressions and Pattern Matching. These updates are not mere enhancements but pivotal tools that will streamline your coding practices and make your development process more efficient. The real-world labs enable you to quickly pick up useful practical skills you'll be able to apply seamlessly into your work.

Whether you're upgrading existing projects or embarking on new ones, the skills and insights gained here will empower you to use Java 21 efficiently and innovatively. This course is more than just an upgrade in your Java knowledge; it's a comprehensive enhancement of your development skills, preparing you to tackle modern challenges with renewed expertise and confidence.

Who Should Attend

This is an intermediate- level Java programming course, designed for experienced Java 17 developers who wish to get up and running with Java 21 immediately. Attendees should have a working knowledge of developing Java 17 applications. This course is not for non-developers, or developers new to Java.

Learning Outcomes

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

This course is rich with hands-on activities and examples, combining robust real-world hands-on labs with expert instruction, engaging activities and group discussions and review. You'll learn and practice new skills under the guidance of our expert instructor, who will prepare you to apply these in the job, role or project with confidence.

Working in an interactive learning environment, led by our expert facilitator, you'll explore:

Updated Java Skills: Gain updated Java skills, enhancing employability and industry relevance.

Efficiency in Coding: Learn techniques like Records, enhanced text handling, and sealed classes, streamlining coding practices and improving code quality.

Adaptive Development: Seamlessly adapt from Java 11 to Java 21, ensuring effective participation in modern Java projects.

Practical Application: Apply new skills immediately in real-world projects, increasing productivity and code quality.

Competitive Edge: Stand out in the job market with up-to-date Java knowledge, becoming a valuable asset to organizations and potential employers.

Mastery of Pattern Matching: Acquire proficiency in advanced Pattern Matching techniques for concise and error-reducing code.

Effective Text Processing: Learn to handle text efficiently with Java 21's enhanced text handling features, improving application readability and user experience.

Detailed Course Outline

1. Versions and Features

- ¢ Quick Review of Java versions since Java 8

- ¢ (Non) LTS releases

- ¢ Preview features

- ¢ Java Language Specifications

- ¢ Java Specification Requests

- ¢ Java Enhancement Proposals

- ¢ Tutorial: IntelliJ Community Edition 2023 Quickstart (Using Maven)

2. Records

- ‡ Data objects in Java
- ‡ Introduce records as carrier of immutable data
- ‡ Defining records
- ‡ The Canonical constructor
- ‡ Compact constructors

3. String and Text Blocks

- ‡ Discuss the definition of whitespace in Java
- ‡ Introduce the strip() methods of the String class
- ‡ The isBlank() and repeat() methods introduced in Java 11
- ‡ Using the lines() method to construct a Stream instance using a String
- ‡ Compact strings
- ‡ Introducing Text Blocks
- ‡ Indentation in text blocks

4. Sealed Classes

- ‡ Introduce sealed classes
- ‡ The sealed and permits modifier
- ‡ Sealed interfaces
- ‡ Sealed classes and pattern matching

5. Switch Expressions

- ‡ Switch Expressions
- ‡ Using yield
- ‡ Discuss switch fall through

6. Pattern Matching

- ‡ Pattern Matching for instanceof
- ‡ Scope of variable when using pattern matching
- ‡ Refining Patterns in switch
- ‡ Dominance of pattern labels
- ‡ Pattern Matching in switch statements

- ‡ Pattern Matching and sealed classes

- ‡ Record Patterns

7. Exception Handling

- ‡ Enhanced try-with-resources

- ‡ Helpful NullPointerExceptions

- ‡ Excluding parameter names in error messages

8. Overview of Virtual Threads

- ‡ Introduce Virtual Threads

- ‡ Virtual vs System Threads

- ‡ Creating and running a Virtual Thread

- ‡ Scheduling a Virtual Thread

- ‡ Pinned Virtual Threads

Additional Topic: Time Permitting

More Updates

- ‡ private methods in interfaces

- ‡ The forRemoval and since attributes of the Deprecated annotation

- ‡ Multi-release JAR files

- ‡ Javadoc updates

- ‡ Class-Data Sharing

- ‡ Application Class-Data

- ‡ CompactNumberFormat

- ‡ Deprecation of the finalize method

Additional Course Details

Nexus Humans Migrating Java 17 to Java 21 | Java 21 New Features and Skills (TT2136) 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 Migrating Java 17 to Java 21 | Java 21 New Features and Skills (TT2136) 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 Migrating Java 17 to Java 21 | Java 21 New Features and Skills (TT2136)?

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
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Q: How many CPD hours does this course provide?

The 1-day Migrating Java 17 to Java 21 | Java 21 New Features and Skills (TT2136) course provides up to 6.5 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Migrating Java 17 to Java 21 | Java 21 New Features and Skills (TT2136) training?

The training takes place over 1 day(s), with each day lasting approximately 8.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Migrating Java 17 to Java 21 | Java 21 New Features and Skills (TT2136)?

Yes, we provide corporate training, dedicated training, and closed classes for Migrating Java 17 to Java 21 | Java 21 New Features and Skills (TT2136). 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: What related terms do people search for?

Popular related searches include: Java

Q: Why choose Nexus Human for Migrating Java 17 to Java 21 | Java 21 New Features and Skills (TT2136)?

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 Migrating Java 17 to Java 21 | Java 21 New Features and Skills (TT2136) 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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