

Java 9 and Beyond

Duration: 3 days (9 hours each day with working lunch)

With a faster and more frequent release cadence, Java is moving at a much rapid pace. This course will bring your team up to speed with the state of the art changes with the recent versions of Java. We will customize this course to deliver in depth knowledge of features from versions that matters to your team the most.

The course has a good balance of interactive lectures and hands-on exercises. The attendees are expected to pair-up and work on the lab exercises. The instructor will assist the attendees as they work on the labs. The objective of the course is for the attendees to gain an in depth practical knowledge of the concepts so they can put them to immediate use on their real projects.

The course content will be customized to meet your teams' specific needs. Please review this detailed outline and suggest changes (additions, deletions, modifications) as you feel fit.

Topics

The JAR hell

- * Java Traditional packaging and JARing
- * Issues with this approach
- * Possible solutions
- * What does Java 9 provide?
- * Exercises

Creating Modules

- * Defining Modules
- * Rules and limitations
- * requires and exports
- * Modules and public
- * Exercises

Working with Multiple Modules

- * Readability
- * Implied readability
- * Viewing dependencies
- * Linking
- * Module versioning
- * Exercises

Working with Legacy JARs

- * Moving from JARs to Modules
- * classpath and modules paths
- * unnamed modules

- * automatic modules
- * Recommendations for incremental transition
- * Exercises

Using JShell

- * REPL
- * Productivity gain from its use
- * Defining and redefining variables and methods
- * Saving and restoring sessions
- * imports
- * Prototyping with JShell
- * Exercises

Garbage Collection Changes

- * G1 Garbage Collector
- * Consequences of this default setting
- * Monitoring
- * Exercises

Language Changes in 9, 10, and 11

- * Language level changes
- * Private methods
- * Limitations on underscore
- * Type inference
- * Why should we care?
- * How to make use of them
- * Exercises

API Changes in 9, 10, and 11

- * Changes to CompletableFuture
- * Changes to Stream, Optional, and related interfaces/classes
- * Addition to Collectors
- * Other changes and improvements
- * Exercises

About the Instructor

Dr. Venkat Subramaniam is an award-winning author, founder of Agile Developer, Inc., creator of agilelearner.com, and an instructional professor at the University of Houston.

He has trained and mentored thousands of software developers in the US, Canada, Europe, and Asia, and is a regularly-invited speaker at several international conferences. Venkat helps his clients effectively apply and succeed with sustainable agile practices on their software projects.

Venkat is a (co)author of multiple technical books, including the 2007 Jolt Productivity award winning book Practices of an Agile Developer. You can find a list of his books at agiledeveloper.com. You may read more about Venkat and Agile Developer, Inc. at <http://agiledeveloper.com>.

