

# Programming in Java 9

**Duration: 2 days (9 hours each day with working lunch)**

We can file Java 9 under the same category as Java 5 and Java 8—high impact. While the other two versions mentioned has a great impact on how we code, Java 9 changes the way how we package and deploy applications. In this course developers will get a deep understanding on how to make use of Java 9 features. We extensively cover the Modular Source Code feature in Java 9 along with JShell and a few other useful features.

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

## API Changes

- \* A few useful API changes
- \* Why should we care?
- \* How to make use of them
- \* 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>.

