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In Depth Stream Processing With Hazelcast

Course Summary

The In-Depth Stream Processing Course is a 3 day hands-on experience intended to get Java developers ready to use the Hazelcast platform to build solutions that process and react to streaming data in real time. It consists of the following 3 elements:

Introduction to stream processing with Hazelcast Jet (5 hours)

> This session introduces stream processing concepts and the Jet Pipeline API for building stream processing applications and provides a hands-on introduction to the functional style of the Jet API.

Processing data in memory with IMDG (4 hours)

> This portion of the class provides an introduction to Hazelcast IMDG and more in-depth treatment of those elements of the product that are useful in a stream processing context.

Stream Processing Comprehensive Lab(12 hours)

> Students are introduced to a real life scenario involving processing streams of diagnostic and location data produced by a vehicle fleet. The student will use what they have learned about Jet and IMDG to build, deploy and update a stream processing system. The final solution is built over a day and a half in 10 guided labs and consists of multiple streams running in a multi-node Jet cluster.

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Facility Prerequisites

Enough seating and table space to allow each participant and the instructor to sit and work on a laptop or personal computer.

Power for all participants.

Internet access for all participants.

> Please let us know if this is not possible. The labs require participants to download a significant amount of open source libraries, docker images, etc.. Using the internet is convenient and allows us to be responsive and distribute changes during the class. However, if internet access is out of the question then please discuss your preferred method of data transfer (e.g. USB) with the instructor ahead of time.

A projector of large display

A whiteboard or flip chart and markers

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Attendee Prerequisites

Each attendee should have a laptop or personal computer (Windows or Mac)

Solid Java Programming Skills

An account in GitHub (if this is out of the question please discuss with the instructor us ahead of time).

Knowledge of Java 8 Streams is a plus but not required

Knowledge of Hazelcast IMDG or familiarity with other in memory grid products is a plus but not required.

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Attendee Laptop Requirements

Windows or Mac

4G RAM

A Java 1.8 JDK (or higher)

Maven

Git

A Java IDE (IntelliJ, Eclipse, etc.)

> For Jet training, IntelliJ is *strongly preferred* due to the fact that its assistive features handle complex generic types better than those of Eclipse. The community edition is free and works very well.

Docker Desktop

> **Please install this before the first day.** Docker Desktop does not support some old versions of Windows 10.

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