

Apache Storm

Course Summary

Description

This course will teach Apache Storm – a popular event processing framework – to students.

Objectives

After taking this course, students will know:

- Concepts & architecture
- How to install and configure
- Programming
- Logging & Metrics
- Designing Streaming systems

Topics

- Introduction to Streaming Systems
- Introduction to Storm
- Programming With Storm
- Topology Design
- Logging & Metrics
- Trident
- Designing and Tuning Storm Systems

Audience

This course is designed for Developers

Prerequisites

- Comfortable with Java programming language (programming exercises are in java)
- Comfortable in Linux environment (be able to navigate Linux command line, edit files using vi/nano)

Duration

Two Days

Apache Storm

Course Outline

- I. *Introduction to Streaming Systems*
 - A. Fast data
 - B. Streaming architecture
 - C. Lambda architecture
 - D. Message queues
 - E. Streaming processors

- II. *Introduction to Storm*
 - A. Architecture
 - B. Sources / Sinks
 - C. Tuples
 - D. Spout
 - E. Bolts
 - F. Topologies

- III. *Programming With Storm*
 - A. Storm Java API
 - B. Bolt / Spout / Topology APIs
 - C. Lab: Programming Storm

- IV. *Topology Design*
 - A. Mapping fields
 - B. Parsing fields in Bolts
 - C. Scalability and Parallelism
 - D. Executors and Tasks
 - E. Creating robust topologies

- V. *Logging & Metrics*
 - A. Logging in Storm application
 - B. Metrics: capturing and analyzing

- VI. *Trident*
 - A. Intro to Trident
 - B. Trident operations

- VII. *Designing and Tuning Storm Systems*
 - A. Kafka & Storm
 - B. Topology design
 - C. Tuning Storm systems