

### About Dilişim

Dilişim was founded in 2009 by Dr. Özgür Yılmazel who has a PhD in natural language processing and information extraction. Dilişim has expertise in Big Data Systems, Natural Language Processing and Search. Dilişim's vision and goal is to support its clients and create measurable value to its customers by utilizing data at their hand. Dilişim is Cloudera's first and only training partner in Turkey and also the only silver-level integrator partner in Turkey since 2012. Dilişim deployed first commercial Hadoop Cluster in Turkey, and it now runs the largest Hadoop Cluster in Turkey.

### About Cloudera

Founded in 2008, Cloudera was the first, and is currently, the leading provider and supporter of Apache Hadoop for the enterprise. Cloudera also offers software for business critical data challenges including storage, access, management, analysis, security, and search. Cloudera is revolutionizing enterprise data management by offering the first unified Platform for Big Data: The Enterprise Data Hub.

### What are Cloudera trainings?

Dilişim offers the following Cloudera trainings:

- Cloudera Developer Training for Spark and Hadoop (4 days)
- Cloudera Developer Training for Apache Spark (3 days)
- Cloudera Administrator Training for Apache Hadoop (4 days)
- > Cloudera Data Analyst Training: Using Pig, Hive and Impala with Hadoop (4 days)
- Cloudera Training for Apache HBase (3 days)

The trainings in Turkey are delivered by Dilişim by being the only training partner of Cloudera in Turkey.

### Why Cloudera Training?

Through instructor-led discussion and interactive, hands-on exercises, participants will navigate the Hadoop ecosystem and experience the following:

- > Most comprehensive suite of courses to address the Hadoop objectives of every data professional: developers, administrators, and data analysts.
- > The industry's only truly dynamic and up-to-date Hadoop training curriculum
- > Delivered by full-time technical and Cloudera certified instructors
- > Industry leader in Hadoop with over 100.000 participants
- Video tutorials and e-learning services







# Cloudera Administrator Training for Apache Hadoop

### Take your knowledge to the next level with Cloudera's Apache Hadoop

This four-day administrator training course for Apache Hadoop provides participants with a comprehensive understanding of all the steps necessary to operate and maintain a Hadoop cluster using Cloudera Manager. From installation and configuration through load balancing and tuning, Cloudera's training course is the best preparation for the real-world challenges faced by Hadoop administrators.

### Hands-On Hadoop

Through instructor-led discussion and interactive, hands-on exercises, participants will navigate the Hadoop ecosystem, learning topics such as:

- Cloudera Manager features that make managing your clusters easier, such as aggregated logging, configuration management, resource management, reports, alerts, and service management.
- > The internals of YARN, MapReduce, Spark, and HDFS
- > Determining the correct hardware and infrastructure for your cluster
- > Proper cluster configuration and deployment to integrate with the data center
- > How to load data into the cluster from dynamically-generated files using Flume and from RDBMS using Sqoop
- > Configuring the FairScheduler to provide service-level agreements for multiple users of a cluster
- > Best practices for preparing and maintaining Apache Hadoop in production
- > Troubleshooting, diagnosing, tuning, and solving Hadoop issues

### Audience & Prerequisites

This course is best suited to systems administrators and IT managers who have basic Linux experience. Prior knowledge of Apache Hadoop is not required.

### **Administrator Certification**

Upon completion of the course, attendees are encouraged to continue their study and register for the Cloudera Certified Administrator for Apache Hadoop (CCAH) exam. Certification is a great differentiator. It helps establish you as a leader in the field, providing employers and customers with tangible evidence of your skills and expertise.



## Cloudera Administrator Training for Apache Hadoop

#### Introduction

### The Case for Apache Hadoop

- > Why Hadoop?
- > Fundamental Concepts
- Core Hadoop Components

### **Hadoop Cluster Installation**

- Rationale for a Cluster Management Solution
- Cloudera Manager Features
- Cloudera Manager Installation
- > Hadoop (CDH) Installation

# The Hadoop Distributed File System (HDFS)

- > HDFS Features
- Writing and Reading Files
- NameNode Memory Considerations
- Overview of HDFS Security
- > Web UIs for HDFS
- Using the Hadoop File Shell

### MapReduce and Spark on YARN

- The Role of Computational Frameworks
- YARN: The Cluster Resource Manager
- MapReduce Concepts
- Apache Spark Concepts
- Running Computational Frameworks on YARN
- Exploring YARN Applications Through the Web Uls, and the Shell
- YARN Application Logs

# Hadoop Configuration and Daemon Logs

- Cloudera Manager Constructs for Managing Configurations
- Locating Configurations and Applying Configuration Changes
- Managing Role Instances and Adding Services
- Configuring the HDFS Service
- Configuring Hadoop Daemon Logs
- Configuring the YARN Service

### **Getting Data Into HDFS**

- Ingesting Data From External Sources With Flume
- Ingesting Data From Relational Databases With Sqoop
- REST Interfaces
- Best Practices for Importing Data

### Planning Your Hadoop Cluster

- General Planning Considerations
- > Choosing the Right Hardware
- Virtualization Options
- Network Considerations
- Configuring Nodes

# Installing and Configuring Hive, Impala, and Pig

- > Hive
- Impala
- > Pig

#### Hadoop Clients Including Hue

- What Are Hadoop Clients?
- Installing and Configuring Hadoop Clients
- > Installing and Configuring Hue
- Hue Authentication and Authorization

### Advanced Cluster Configuration

- Advanced Configuration Parameters
- Configuring Hadoop Ports
- Configuring HDFS for Rack Awareness
- > Configuring HDFS High Availability

### **Hadoop Security**

- > Why Hadoop Security Is Important
- Hadoop's Security System Concepts
- What Kerberos Is and how it Works
- Securing a Hadoop Cluster With Kerberos
- Other Security Concepts

### **Managing Resources**

- Configuring cgroups with Static Service Pools
- > The Fair Scheduler
- Configuring Dynamic Resource Pools
- YARN Memory and CPU Settings
- > Impala Query Scheduling

#### Cluster Maintenance

- Checking HDFS Status
- Copying Data Between Clusters
- Adding and Removing Cluster Nodes
- > Rebalancing the Cluster
- Directory Snapshots
- Cluster Upgrading

# Cluster Monitoring and Troubleshooting

- Cloudera Manager Monitoring Features
- Monitoring Hadoop Clusters
- Troubleshooting Hadoop Clusters
- Common Misconfigurations

### Conclusion





## **AKBANK**

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