

TRAINING OFFERING

APACHE HADOOP ADMINISTRATION WITH AMBARI

2 DAYS | FOUNDATION



This course is intended for systems administrators who will be responsible for the design, installation, configuration, and management of the Hortonworks Data Platform (HDP). The course provides in-depth knowledge and experience in using Apache Ambari as the operational management platform for HDP. This course presumes no prior knowledge or experience with Hadoop.

PREREQUISITES

Students must have experience working in a Linux environment with standard Linux system commands. Students should be able to read and execute basic Linux shell scripts. Basic knowledge of SQL statements is recommended, but not a requirement. In addition, it is recommended for students to have some operational experience in data center practices, such as change management, release management, incident management, and problem management. It is also strongly recommended that you complete **Hortonworks Hadoop Essentials** before taking this course.

TARGET AUDIENCE

Linux administrators and system operators responsible for installing, configuring and managing an HDP cluster.

FORMAT

50% Lecture

50% Hands-on Labs

OBJECTIVES

- Describe Apache Hadoop
- Summarize the Purpose of the Hortonworks Data Platform Software Frameworks
- Describe Apache Ambari
- Identify Hadoop Cluster Deployment Options
- Plan for a Hadoop Cluster Deployment
- Perform an Interactive HDP Installation using Apache Ambari
- Install Apache Ambari
- Identify Hadoop Configuration Files
- Summarize Operations of the Web UI Tool
- Manage Hadoop Service Configuration Properties Using the Apache Ambari Web UI
- Describe the Hadoop Distributed File System (HDFS)
- Perform HDFS Shell Operations
- Use WebHDFS
- Describe HDFS Architecture and Operation
- Manage HDFS using Ambari Web, NameNode and DataNode UIs
- Manage HDFS using Command-line Tools
- Summarize the Purpose and Benefits of Rack Awareness
- Configure Rack Awareness
- Identify the Purpose and Operation of Heterogeneous HDFS Storage
- Summarize the Purpose and Operation of HDFS Centralized Caching
- Configure HDFS Centralized Cache
- Define and Manage Cache Pools and Cache Directives
- Describe YARN Resource Management
- Summarize YARN Architecture and Operation
- Identify and Use YARN Management Options
- Summarize YARN Response to Component Failure
- Understand the Basics of Running Simple YARN Applications
- Summarize the Purpose and Operation of the YARN Capacity Scheduler

About Hortonworks

Hortonworks is a leading innovator at creating, distributing and supporting enterprise-ready open data platforms. Our mission is to manage the world's data. We have a single-minded focus on driving innovation in open source communities such as Apache Hadoop, NiFi, and Spark. Our open Connected Data Platforms power Modern Data Applications that deliver actionable intelligence from all data: data in-motion and data-at-rest. Along with our 1600+ partners, we provide the expertise, training and services that allows our customers to unlock the transformational value of data across any line of business. We are Powering the Future of Data™.

Contact

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- Configure and Manage YARN Queues
- Control Access to YARN Queues
- Summarize the Purpose and Operation of YARN Node Labels
- Describe the Process used to Create Node Labels
- Describe the Process Used to Add, Modify and Remove Node Labels
- Configure Queues to Access Node Label Resources
- Run Test Jobs to Confirm Node Label Behavior
- Summarize the Purpose of NameNode HA
- Configure NameNode HA Using Ambari
- Summarize the Purpose of ResourceManager HA
- Configure ResourceManager HA using Apache Ambari
- Identify Reasons to Add, Replace and Delete Worker Nodes
- Demonstrate How to Add a Worker Node
- Configure and Run the HDFS Balancer
- Decommission and Re-commission a Worker Node

LABS

- Setting Up the Environment
- Installing HDP
- Managing Hadoop Services
- Using HDFS Storage
- Using WebHDFS
- Managing HDFS Storage
- Managing HDFS Quotas
- Configuring Rack Awareness
- Configuring HDFS Storage Policies
- Configuring HDFS Centralized Cache
- Managing YARN Using Ambari
- Managing YARN Using CLI

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- Running Sample YARN Applications
 - Setting Up for Capacity Scheduler
 - Managing YARN Containers and Queues
 - Managing YARN ACLs and User Limits
 - Working with YARN Node Labels
 - Configuring NameNode HA
 - Configuring Resource Manager HA
 - Adding, Decommissioning and Re-commissioning a Worker Node

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