HORTONWORKS (HDP) ADMINISTRATION COURSE CURRICULUM

Apache Hadoop Introduction

- Bigdata Introduction
- Why Hadoop?
- Fundamental Concepts
- Core Hadoop Components
  - HDFS
  - MapReduce
  - Hive
  - PIG
  - Sqoop
  - Flume
  - Sqoop
  - HBase
  - Spark etc…

The Hortonworks Data Platform

- List Hadoop Cluster Management Choices
- Describe Apache Ambari
- Describe the Hadoop Distributed File System (HDFS)
- Use Ambari Files View

LABS:

- Managing Ambari Users and Groups
- Managing Hadoop Services
- Using HDFS Storage
- Using WebHDFS
- Using HDFS Access Control Lists

Managing HDFS Storage, YARN Resource Management

- Describe HDFS Architecture and Operation

- ➢ Manage HDFS using Command-line Tools
- ➢ Enable and Manage HDFS quotas
- ➢ Describe YARN Resource Management
- ➢ Summarize YARN Architecture and Operation
- ➢ Identify and use YARN Management Options
- ➢ LABS
- ➢ Managing HDFS Storage
- ➢ Managing HDFS Quotas
- ➢ Configuring and Manage YARN
- ➢ Non-Ambari YARN Management

YARN Applications, Managing Cluster Nodes and Rack Awareness

- ➢ Understand the Basics of Running Simple YARN Applications
- ➢ Identify Reason to Add, Replace and Delete Worker Nodes
- ➢ Configure and Run the HDFS Balancer
- ➢ Decommission and Re-commission a Worker Node
- ➢ Configure and Manager YARN Queues
- ➢ Summarize the Purpose and Benefits of Rack Awareness
- ➢ LABS
- ➢ Running Sample YARN Applications
- ➢ Add, Decommission and Re-commission a Worker Node
- ➢ Configure Users and Groups
- ➢ Configure YARN Resources Queues
- ➢ User Group and Resource Management
- ➢ Configuring Rack Awareness

HDFS and YARN High Availability, Monitoring Clusters, Installing HDP

- ➢ Summarize the Purpose of NameNode HA
- ➢ Configure NameNode HA using Ambari
- ➢ Summarize the Purpose and Operation of Ambari Metrics
- ➢ Summarize Hadoop Backup Considerations

- ➢ Identify Hadoop Cluster Deployment Options
- ➢ Perform an Interactive HDP Installation using Apache Ambari
- ➢ LABS
- ➢ Configuring NameNode HA
- ➢ Configuring Resource Manager HA
- ➢ Configuring Ambari Alerts
- ➢ Managing HDFS Snapshots
- ➢ Using DistCp
- ➢ Installing HDP

Course Deliverables

- ➢ Workshop style coaching
- ➢ Interactive approach
- ➢ Course material
- ➢ POC Implementation
- ➢ Hands on practice exercises for each topic
- ➢ Quiz at the end of each major topic
- ➢ Tips and techniques on HDP Certification Examination