Spark with Scala Developer





Hadoop Overview

- 1. Need of Hadoop technology
- 2. Hadoop Cluster and Racks in detail
- 3. Overview of Map Reduce
- 4. Big data Concepts and data types
- 5. Concept of Streaming data and different tools utilization
- 6. HDFS and Basic hadoop commands

Scala Programming

- 1. Scala overview and Environment Setup
- 2. Oops concepts in scala
- 3. Control Structure and Functions
- 4. Closures and Collections
- 5. Exception Handling in scala

Apache Spark 2 x Installation

- 1. Download release and set
- 2. Working with eclipse
- 3. Installing Scala IDE with spark
- 4. Testing with different OS



Working with Apache Spark

- 1. RDD and its Transformations
- 2. Working with Eclipse Maven, Spark context and RDD
- 3. Working with different file formats
- 4. Introduction to Spark DataFrame
- 5. Data Frames and RDD's with with Spark 1.x and 2.x style
- 6. Creating Multiple Spark Context and Spark Sessions
- 7. Applying Own Schema to the DataFrame and basic operations
- 8. Creating Datasets and its basic operations
- 9. Dataset vs DataFrame Performance
- 10.Running Spark Job in Yarn/cluster Mode From IDE
- 11. Spark with Mysql, transformations On MySQL Table DataFrame API
- 12. Query Push Down to MySQL Database
- 13. Creating Partitioned Table with Spark
- 14. Spark built-in functions and UDF
- 15.Examples with spark Sql and RDD's
- 16.Spark job submit

Spark Streaming

- 1. Working with data stream
- 2. Example of network
- 3. Twitter data stream
- 4. Twitter data analysis cases



6. Kafka

- 1. Fundamentals of kafka, Work Flow and Basic Operations
- 2. Creating Topics, Partition, Replication, Broker and Kafka cluster
- 3. Working with Producer and Consumer Examples
- 4. Creating Consumer Group, Leaders, Followers
- 5. Starting brokers, Listing and modifying topics
- 6. Single Node-Multiple Brokers Configuration and Basic Topic Operations
- 7. Creating Producer, Consumer and Consumer group application
- 8. Running a jar files from terminal

Real time case studies:

- 1. Working on different data sets
- 2. Working on use live data

SparkMlib

- 1. Classification algorithm
- 2. Clustering algorithm
- 3. Sequence Mining algorithm

Spark Graphx

- 1. Graph analysis with Spark
- 2. Graphx for graphs
- 3. Graph parallel computation

