



## **BIG DATA & HADOOP COURSE CONTENT**

### **Course Curriculum and Learning Outcomes**

#### Module Description Learning Outcomes

#### **Big Data and Hadoop Concepts**

- Describe Big Data
- List out the limitations of the existing solution
- Define Hadoop and its components
- Describe how Hadoop solves the limitations of the existing solution

#### **Hadoop Architecture**

- Explain HDFS Architecture
- Describe the anatomy of File Read and Write
- Explain MapReduce Process Flow

#### **Hadoop Environment Set Up**

- Define a Cluster
- Describe different flavours of Hadoop
- Execute the word count example

#### **Hadoop MapReduce Concepts**

- Compare and contrast traditional approach with Map Reduce way
- Differentiate between Block and Split

- Describe Combiners
- Discuss Partitioners

#### **Analytics Using Hive**

- Discuss use cases for Hive
- Compare Hive and Pig, also Hive and RDBMS
- Describe Hive components
- Execute Hive queries
- Identify existing data challenges

#### **Analytics Using Mysql**

- Describe features of a likely solution
- Define Mysql
- Explain data model in Mysqlarchitecture

#### **Hadoop 2.0 & Identify challenges with Hadoop 1.0**

- Apache Fsqoop ,lume and Zookeeper
- Discuss solutions provided by Hadoop 2.0 in terms of YARN
- Explain Hadoop 2.0 Process Flow