

BigData Analytics & Hadoop

PREREQUISITE:

- Basic understanding of any programming language.

DURATION: 7 Days [15 Hours]

<u>DAY-1</u>	<ul style="list-style-type: none"> ● Big Data Analytics & Hadoop: <ul style="list-style-type: none"> ○ Introduction to the Term Big Data ○ Work of Big Data Analytics ○ Journey to Start as Data Scientist ○ 6 V's of Big Data ○ Configuring Hadoop Environment in your Local System ○ Cloudera Installation ○ Introduction to Hadoop ● HDFS [Hadoop Distributed File System] <ul style="list-style-type: none"> ○ Components of HDFS - NameNode & DataNode ○ Hadoop Daemons ○ Hadoop Admin & Commands
<u>DAY-2</u>	<ul style="list-style-type: none"> ● Map-Reduce [Data Processing] <ul style="list-style-type: none"> ○ Introduction to Map-Reduce ○ Map-reduce V1 vs YARN ○ Introduction to YARN ○ FS Image & Secondary Namenode <ul style="list-style-type: none"> ■ Shuffle, Sorting & Partitioning ■ Map reduce Word-Count Problem - Example
<u>DAY-3</u>	<ul style="list-style-type: none"> ● HIVE <ul style="list-style-type: none"> ○ Introduction to Hive ○ Difference between SQL & Hive ○ Database & Table Creation ○ Internal vs External Table ○ Functions <ul style="list-style-type: none"> ■ Date & String Functions ○ PARTITIONING & BUCKETING <ul style="list-style-type: none"> ■ Static vs Dynamic Partitioning ■ Buckets in Hive

<p><u>DAY-4</u> <u>&</u> <u>DAY-5</u></p>	<ul style="list-style-type: none"> • Apache Spark on Azure DataBricks <ul style="list-style-type: none"> ◦ Introduction to Apache Spark ◦ Usage & workflow of Spark ◦ Trick - Account creation on Azure DataBricks ◦ RDD - Resilient Distributed DataSet <ul style="list-style-type: none"> ■ Transformation & Action [Operation] ◦ RDD Vs DataFrame ◦ DataFrame - <ul style="list-style-type: none"> ■ Creating DataFrame with several file formats ■ Benefits of using Dataframes ■ Manipulating Data Frame ■ Group By operation on Data Frame ◦ Introduction to MLlib <ul style="list-style-type: none"> ■ Linear Regression - Case study
<p><u>DAY-6</u></p>	<ul style="list-style-type: none"> • Neo4j Graph Analytics & NoSQL DataBase <ul style="list-style-type: none"> ◦ Graph Analytics - Introduction ◦ Understanding of Graphs ◦ Running & Installing Neo4j ◦ HBase - Introduction ◦ SQL VS NoSQL [Which is better] ◦ NoSQL - Introduction <ul style="list-style-type: none"> ■ Creating Table & column family ■ Create, retrieve, update & delete operation ◦ Hands on learning with NoSQL from scratch
<p><u>DAY-7</u></p>	<ul style="list-style-type: none"> • Amazon EMR <ul style="list-style-type: none"> ◦ Introduction to Cloud ◦ Running Hadoop Eco-system on cloud ◦ Creating 100 Nodes cluster within seconds • Capstone Project