



IT SOLUTIONZ

Implementations

Integrations

Interfaces

We lead your steps to success

BIG DATA

i3 IT Solutionz is providing **BIG DATA** training by Faculty **Mr. Venkat**, having **5+ Years of Experience**. With his subject knowledge and training, the aspirant candidates can look forward to work on **Real Time Projects**. He is one of the leading faculty in **Hyderabad** in **Big Data** training

Faculty Overview

Mr. Venkat
5+ Years Experience

Course Duration

2 Months

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Module 1: Introduction To Big Data

- **Overview Of Big Data:**

- Definition And Characteristics of Big Data.
- Importance And Impact on Various Industries.

- **Key Concepts:**

- Volume, Velocity, Variety, Veracity, And Value in Big Data.
- Structured Vs. Unstructured Data.

- **Big Data Technologies:**

- Hadoop, Spark, Flink, And Other Major Frameworks.
- NoSQL Databases (MongoDB, Cassandra, Etc.).
- Data Lakes and Warehouses.

Module 2: Hadoop Ecosystem

- **Introduction To Hadoop:**

- Hadoop Distributed File System (HDFS).
- MapReduce Paradigm.

- **Hadoop Ecosystem Components:**

- HBase, Hive, Pig, Sqoop, Flume, Etc.
- Overview Of Their Functionalities and Use Cases.

- **Hadoop Cluster Setup:**

- Setting Up a Hadoop Cluster.
- Configuring And Managing Hadoop Nodes.





Module 3: Apache Spark

- **Introduction To Spark:**
 - Spark Architecture and Components.
 - RDDS (Resilient Distributed Datasets) And Data frames.
- **Spark SQL And Data frames:**
 - Processing Structured Data Using Spark SQL.
 - Working With Data frames.
- **Spark Streaming:**
 - Real-Time Data Processing with Spark.
 - Integration With Other Streaming Technologies.

Module 4: NoSQL Databases

- **Introduction To NoSQL:**
 - Characteristics And Types of NoSQL Databases.
 - Document, Key-Value, Column-Family, And Graph Databases.
- **MongoDB:**
 - Document-Oriented Database.
 - CRUD Operations and Data Modelling.
- **Cassandra:**
 - Wide-Column Store NoSQL Database.
 - Ring Architecture and Distributed Data Storage.



Module 5: Data Processing and Analytics

- **Data Processing Pipelines:**
 - Building End-To-End Data Processing Pipelines.
 - Workflow Orchestration Tools (Apache Airflow, Etc.).
- **Data Analytics and Machine Learning:**
 - Leveraging Big Data for Analytics.
 - Introduction To Machine Learning on Big Data.

Module 6: Data Security and Governance

- **Security In Big Data:**
 - Authentication And Authorization.
 - Encryption And Compliance.
- **Data Governance:**
 - Policies And Procedures for Data Management.
 - Ensuring Data Quality and Reliability.

Module 7: Real-World Applications and Case Studies

- **Industry Use Cases:**
 - Applications Of Big Data in Various Industries.
 - Case Studies of Successful Implementations.





Module 8: Emerging Trends

- **Edge Computing and IOT:**
 - Processing Data at The Edge.
 - Integration With the Internet of Things (IOT).
- **Serverless Computing:**
 - Concepts And Applications in Big Data.
 - Serverless Frameworks and Platforms.



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