



## **Technocation Freelancing Training Institute And Software House**

### **Big Data Certification Module**

#### **MODULE 1: Introduction to Big Data**

- What is big data?
- Difference between small data and big data
- Why is it important today?
- Real-life examples like YouTube & Google

#### **MODULE 2: Sources of Big Data**

- Social media creates data
- Mobile apps and games also create data
- Sensors and machines add more data
- Big data comes from everywhere

#### **MODULE 3: Types of Big Data**

- Structured data (numbers, tables)
- Unstructured data (videos, pictures)
- Semi-structured data (logs, emails)
- All types are used together

#### **MODULE 4: 5 V's of Big Data**

- Volume = large amount
- Velocity = fast speed
- Variety = many forms
- Veracity = truth of data

#### **MODULE 5: Data Collection Methods**

- Online forms and apps
- Social media posts
- IoT sensors

- Digital transactions

## **MODULE 6: Data Storage Basics**

- Data needs space to stay
- Stored in servers or cloud
- Cloud = storage on internet
- Easy to access anytime

## **MODULE 7: Data Processing**

- Raw data is not useful
- Processing makes it clear
- Tools help to process
- Helps in decision-making

## **MODULE 8: Big Data Tools**

- Hadoop for storing
- Spark for fast processing
- SQL for queries
- Python for coding

## **MODULE 9: Big Data Analytics**

- Looking for patterns
- Making predictions
- Understanding trends
- Helping businesses grow

## **MODULE 10: Big Data in Real Life**

- Hospitals use for health data
- Banks use for transactions
- Schools use for learning data
- Shops use for customers

## **MODULE 11: Challenges in Big Data**

- Too much data is hard to handle
- Data security is a problem
- Wrong data gives wrong results
- Needs strong technology

## **MODULE 12: Future of Big Data**

- AI and robots use big data
- Self-driving cars need data
- Smart cities use data
- Future jobs will need it

## **MODULE 13: Certification Module**

- Review all modules again
- Do a small project
- Show understanding in presentation
- Get certified as “Big Data Learner”

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