

# Data Analytics Training Program

## Overview

The Data Analytics Training Program is designed to help participants **analyze data, generate insights, and make data-driven decisions.**

This program covers **data processing, analysis, visualization, and business intelligence,** making it ideal for students and professionals aiming for roles in analytics.

Industries like finance, e-commerce, healthcare, and marketing rely heavily on data analytics.

## Objectives

Participants will:

- Understand data analysis concepts and workflow
- Work with structured and unstructured data
- Perform data cleaning and transformation
- Create dashboards and reports using Power BI
- Build real-world analytics projects

## Key Modules

- Introduction to Data Analytics
- Python for Data Analysis
- SQL for Data Management
- Data Cleaning & Preprocessing
- Exploratory Data Analysis (EDA)
- Data Visualization
- Business Intelligence with Power BI
- Real-world Project Development

# 🔧 Tools & Technologies Used

## 📄 Programming:

- Python

## 📚 Libraries:

- Pandas
- NumPy
- Matplotlib
- Seaborn

## 🗄️ Databases:

- MySQL

## 📊 Visualization:

- Microsoft Power BI

## 🛠️ Development Tools:

- Jupyter Notebook
- VS Code

## 🏆 Outcomes

1. Analyze and interpret real-world datasets
2. Write SQL queries for data extraction
3. Perform data cleaning and transformation
4. Create professional dashboards using Power BI
5. Prepare for data analyst roles

# Curriculum

## 1. Introduction to Data Analytics

- Data lifecycle
- Types of data
- Analytics vs Data Science

## 2. Python for Data Analysis

- Data structures
- Data handling with Pandas

**Tools:** Python, Pandas, NumPy

## 3. Data Cleaning & Preprocessing

- Missing values
- Data transformation
- Feature engineering

## 4 .Exploratory Data Analysis (EDA)

- Data visualization
- Pattern detection

**Tools:** Matplotlib, Seaborn

## 5 .SQL for Data Analytics

- SELECT, JOIN, GROUP BY
- Real-world queries

**Tools:** MySQL

## **6□.Data Visualization**

- Charts and graphs
- Storytelling with data

## **7□.Business Intelligence with Power BI**

- Data import & transformation
- Data modeling
- DAX basics
- Dashboard creation
- Publishing reports

## **8.Final Capstone Project**

- End-to-end analytics project
- Dashboard + insights presentation

## **Career Opportunities**

- Data Analyst
- Business Analyst
- BI Developer
- Reporting Analyst