

Syllabus

Introduction to Big Data Analytics

Big Data

- Core definitions and concepts.
- Business and industry applications.
- Challenges and trends in the field.

Fundamentals of Big Data Analytics

- Types of analytics: Descriptive, Diagnostic, Predictive, and Prescriptive.
- Data analysis methodologies.
- Integration of tools and technologies.

Introduction to NoSQL

- NoSQL impact on analytics.
- Matching NoSQL solutions to analytical needs.

Snowflake for Analytics

Data Analysis in Snowflake

- Advanced SQL for data analysis.
- Built-in analytical functions.
- Query optimization for analytics.

Data Transformation and Analysis

- Handling semi-structured data.
- JSON analysis.

Advanced Modeling

- Design principles for scalable models.
- Advanced SQL techniques.



Syllabus

S3 & Athena

Data Lake Analytics

- Data Lake architecture for analytics.
- Data organization strategies.

Using Athena for Data Analysis

- Query optimization.
- Distributed data analysis.
- Cost and performance considerations.

QuickSight

Visualization Fundamentals

- Dashboard design principles.
- Choosing appropriate visualizations.

Working with QuickSight

- Creating visualizations.
- Building interactive dashboards.
- Data source integration.

Advanced Analytics

- Using ML Insights.
- Creating KPIs.
- Sharing and security.

Final Project

