#### **Introduction to Data Engineering**

• Introduction to Data Engineering

## **Basics of Computer Networking**

- Computer Networking Basics
- Networking for Data Engineers

#### **Linux and Shell Scripting**

- Introduction to Linux
- Getting Started with Shell Scripting

#### **Python for Data Engineering**

Python for Data Engineering

#### **Apache Hadoop and HDFS**

- Introduction to Apache Hadoop
- HDFS Overview

#### **Data Lakes**

- Understanding Data Lakes
- Data Lakes vs. Data Warehouses

## **Database Management Systems (DBMS and RDBMS)**

• Introduction to DBMS

# **NoSQL and MongoDB**

- Introduction to NoSQL
- What is MongoDB?

## **Cloud Services for Data Engineering**

• Introduction to Cloud Computing

#### **Docker and Kubernetes**

• Introduction to Docker

#### **ETL Modeling**

- Understanding ETL Processes
- ETL Best Practices

## **Apache Spark and PySpark**

- Apache Spark Overview
- Getting Started with PySpark

# **Data Migration Tools**

- Data Migration Concepts
- Apache Sqoop

#### **Real-Time Data Pipelines**

- Introduction to Apache Kafka
- Building Real-Time Pipelines

# **Capstone Projects and Case Studies**

- Capstone Project Ideas for Data Engineering
- Real-World Data Engineering Case Studies