# **Databricks Training**

## **Overview of Apache Spark and Databricks**

- What is Apache Spark?
- How do we define Big Data?
- Spark languages Scala, Python, R, Java, SQL
- Databricks Community Edition
- Databricks Architecture
- Defining Data Analytics
- Defining Machine Learning
- Azure implementation
- AWS implementation

#### **Databricks benefits**

- Collaboration
- Scaling
- Integrating into Pipelines

## **Getting started with Databricks**

- Creating a Databricks Workspace on Azure
- Creating and configuring your Cluster
- Creating and attaching your first Notebook
- Testing your Notebook

# **Uploading data**

- Creating a Table
- Connecting to a Spark data source
- Previewing your Table
- Columns and Datatypes basics

# **Bringing your data into your Notebook**

- Writing the initial SQL query to import
- View aggregates
- Perform Joins

#### **Visualisations & DataFrames**

- Datatypes
- DataFrames
- Images
- Structured Streaming DataFrames
- Plots
- Choosing Chart types
- Chart Toolbar
- Layout and styling considerations
- Machine Learning visualisations

## **Databricks Jobs**

- Creating a Job
- View Jobs and Job details
- Running your first Job
- Scheduling Jobs
- Setting Parameters
- Viewing completed jobs
- Managing Dependencies
- Setting up Alerts

# **Delta Lake and Delta Tables**

- Getting data into Delta Lake
- Reads and Writes
  - o Batch
  - Streaming
- Delete, update, merge
- Constraints
- Versioning
- Concurrency
- Integrations
- Overview of Delta Engine