

## Metabase Visualization (3 days)

### Course Description

#### Overview:

This course provides an introduction to Metabase, a powerful open-source analytics tool used for visualizing and analyzing data from various sources. Metabase simplifies the process of querying databases, creating insightful visualizations, and sharing data-driven insights across organizations. Students will learn how to set up and configure Metabase, perform data exploration and analysis, create interactive dashboards, and leverage its features for effective decision-making in diverse fields such as business intelligence, healthcare, and research.

#### Course Objectives:

In this course, you will visualize data with Metabase. You will:

- Understand the fundamentals of data visualization and analytics.
- Gain proficiency in using Metabase for querying databases and generating reports.
- Learn to create interactive dashboards and visualizations to communicate insights effectively.
- Explore advanced features of Metabase, including embedding dashboards and automating reports.

### Course Content

#### Metabase Introduction

- Introduction to Data Analytics and Business Intelligence.
- Metabase Installation.

#### Metabase Query Builder

- Creating chart using Query Builder.
- Custom expressions.
- Join in Metabase.
- Multi-level aggregation.
- Clean and formatting text.

#### Working with SQL in Metabase

- Create filter and smart filter for chart
- Common Table Expressions
- SQL Join

#### Visualizing Data

- Create line, barchart, and histogram
- Table visualization
- Creating pivot table

#### Building Dashboard

- Linking filter in dashboard
- Action in dashboard
- Cross-filtering

## **Time Series Analysis**

- Create time series visualization.

## **Data Modeling**

- Models in Metabase
- Analytics engineering for fact tables

## **Administration and operation**

- Admin overview
- Managing people in Metabase
- Permissions
- Row-level security