

Bytewise Ltd
Fellow ship

Data Engineering

U M A R A L I

Technologies

- SQL (Structured Query Language)
- Formula 1 Project
- Hacker Rank
- Data Engineering
- Data Lakes
- Delta Lakes
- Data Warehouse
- ETL





Learned

SQL (Structured Query Language)

01

SQL Basics

In Basics I learn about the Basic syntax of the SQL
In which ho to extract the record ,understand the
use of Where Clause,

02

Functions

I understand about the concepts of Functions how
we use the built-in functions and create our own
functions

03

Joins

Understand the terms of joins, in join I understand
how e use joins and when we use joins,

04

Procedures

Understand the concepts of procedures how we will
use procedure and how to create the procedure

05

Group By & SUM OVER

Understand the concepts of Functions, Group By
„Having Clause and Sum Over Clause

Data Engineering

01

Data Engineering Basic

Understand the Basic Concepts of Data Engineering like they are responsible for managing, monitoring the data and storage and analysis the data

02

Roles of Data Engineer

Understand the core concept of Generalist, Pipeline-centric and database centric

03

End to End Architecture

Understand the whole concept of the architecture

Data Lake

Centralized repository
designed to
Store,
Process
Secure large amounts of
Structured,
Semi structured
Unstructured data.

It can store data in its native
format and process any variety of
it, ignoring size limits.



Delta Lake

Delta Lake is an open source storage layer that brings reliability to data lakes. Delta Lake provides ACID transactions, scalable metadata handling, and unifies streaming and batch data processing. Delta Lake runs on top of your existing data lake and is fully compatible with Apache Spark APIs



Data Warehouse

A data warehouse is a central repository of information that can be analyzed to make more informed decisions. Data flows into a data warehouse from transactional systems, relational databases, and other sources, typically on a regular cadence.



Extract, Transform & Load

01

Extract

In extraction we extract the data from any source like files csv files json files etc

02

Transform

In Transformation, we transform the extracted data do some Transformation on it

03

Load

Load the Extracted and transformation data into data warehousing



Session



Session

01

Databricks Fundamentals

in this session we understand the basics of Fundamentals of databricks

02

Azure Fundamental

Azure fundamentals is a six-part series that teaches you basic cloud concepts, provides a streamlined overview of many Azure services, and guides you with hands-on exercises to deploy your very first services for free.

03

Azure Data Fundamentals

Students will learn about core data concepts such as relational, non-relational, big data, and analytics, and build their foundational knowledge of cloud data services within Microsoft Azure

Certification

The background features a dark blue field with a complex pattern of overlapping, slightly offset rectangular lines that create a sense of depth and movement. Scattered across this field are several circles of varying sizes. These circles have a color gradient, transitioning from a warm orange at the top to a cool purple at the bottom. The largest circles are positioned in the upper right and lower left corners, while smaller ones are placed more centrally and towards the edges.

Azure Databricks



Umar Ali

has successfully completed the requirements to obtain
the following Databricks Academy Accreditation:

Databricks Accredited Lakehouse Fundamentals

Date of Issue:

September 27, 2022

Date of Expiration:

September 27, 2023



A handwritten signature in black ink, appearing to read "Jody Soeiro de Faria".

Jody Soeiro de Faria
Sr. Director, Curriculum & User Success

<https://credentials.databricks.com/fdf7a9f6-6dcb-4e18-9a01-4419924c294a>

HackerRank SQL (Basic)



HackerRank SQL(Intermediate)



Formula 1 Project

The background features a dark blue field with a complex, overlapping pattern of thin, light blue lines that create a sense of depth and movement. Scattered across this field are several circles of varying sizes, each filled with a smooth gradient from a warm orange at the top to a cool purple at the bottom. These circles are positioned in the corners and along the edges, framing the central text.

Formula 1

- Setup a system
- Mounting Data lake Container
- Upload Raw data
- Ingested the raw data
 - CSV Files
 - Json Files
 - Multi Files
- Raw data -> Processed Data
 - Filters and Join transformation
 - Aggregations
 - Spark SQLs
- Presentation Data
 - Analysis the data
- Incremental Load





Thank You