



SQL Masterclass

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THE WORLD OF DATA

- The world has become reliant on data.
- Companies are gathering tons of data each day.
- Play a song on spotify, watch a video on tiktok or share a tweet on twitter you are creating data.
- Human behaviour are patterned.
- Companies use data and human behavioural pattern to make business decisions, grow their business and even make the world a better place.
- Essentially it can be said that your daily life is powered by data.

THE DATA ANALYST ROLE

- Data analyst are at the heart of data.
- Ask questions
- Wrangle data
- Explore data (EDA)
- Draw conclusion
- Communicate insights
- There are a number of tools used by analyst to achieve this, Python, SQL, R, Excel, Tableau...
- This class will focus on just one of them, SQL

DATA STORAGE

- Relational and Non Relational (NoSQL)
- Relational - Data are related and stored in Tables, rows and columns
 - RDBMS - Postgresql, MySQL, Oracle DB, Microsoft SQL server ...
 - SQL is the language used to query this
 - Not so flexible for transnational activities but excellent for analytics.
- NoSQL - Not stored in tables, rows and columns
 - DBMS - MongoDB, Reddis, Apache Cassandra ...
 - Scales easily and designed for the need of the business.
 - Not so excellent for analytics.

DATA FORMAT

- Structured, semi-structured and unstructured
- Structured - Have specific structure (rows and columns)
 - CSV, excel files ...
- Semi-structured - Don't have so much structure or organization
 - JSON, Parquet, Avro ...
- Unstructured - No organization of structure
 - Audio, Video ...

SQL or SEQUEL

- Structured Query Language is a language used to query relational databases.
- 3 different SQL command types
- DDL - Data definition language
 - Create
 - Alter
- DML - Data manipulation language
 - Insert
 - Update
 - Delete
- DQL - Data query language (Main part used by analyst)
 - Select
 - Where
- Learning DQL, using Postgres

Instructors

- **Linda** (SQL Foundation) - March 8, 2022
- **Blessing** (SQL Joins) - March 10, 2022
- **Onyi** (SQL Aggregation) - March 15, 2022
- **Wale** (Subqueries and Temp tables) - March 17, 2022
- **Soji** (Data Cleaning) - March 22, 2022
- **Mike** (Windows function) - March 24, 2022
- **Yinka** (Excel foundation) - March 29, 2022