**Project Title: Daily Stock Price ETL Pipeline**

**Objective:**

To design and implement an automated ETL pipeline that extracts historical stock price data, transforms it with calculated metrics (e.g., returns, moving averages), and loads it into a structured local database for future analysis and reporting.

**Project Phases:**

**1. Data Extraction**

* Use the yfinance library to extract daily stock price data (e.g., Open, High, Low, Close, Volume) for selected tickers.
* Validate the integrity and completeness of extracted data.

**2. Data Transformation**

* Calculate financial metrics

**3. Data Loading**

* Create **local SQLite database** using SQLAlchemy.
* Store:
  + Raw stock data
  + Transformed metrics

**4. Validation & Reporting**

* Verify database contents using SQL queries.
* Sample analysis of one or more stocks to ensure correctness of transformations.
* Log key pipeline events (extractions, transformations, errors).

**5. Load data**

* Save the transform data as a .cvs

**Tools & Technologies:**

* **Programming Language**: Python
* **Libraries**: yfinance, Pandas, Numpy, Matplotlib, SQLAlchemy, Seaborn, Datetime
* **IDE**: Jupyter Notebook