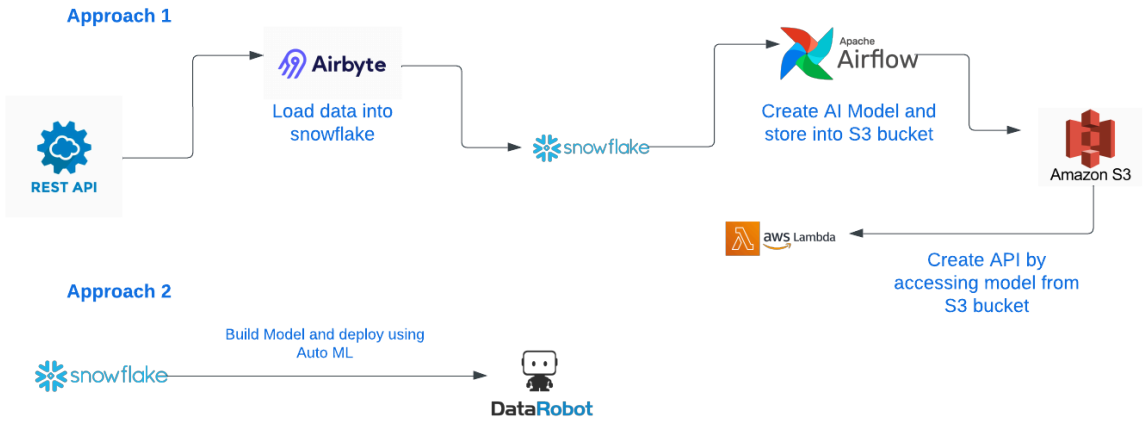
Demo Project:

Hospital Readmission prediction

Dataset: https://www.kaggle.com/code/iabhishekofficial/prediction-on-hospital-readmission

Project Architecture



ELT Process Performed in the Demo:

Step 1: Download data csv file from internet
Step 2: Convert CSV into JSON using python code
Step 3: Create Mock API (https://mocki.io/fake-json-api)
Step 4: Create Trial account in AirByte (https://cloud.airbyte.com/signup)
Step 5: Create Trial account in Snowflake from here (https://signup.snowflake.com/)

1. Go to Snowflake and create Database named: demo_ai101

Step 6: Create ELT Pipeline into Airbyte (**Extract and Transform**)

1. Setup Source
    a. Select -> File (CSV, JSON, Excel, Feather, Parquet)
    b. File format: JSON
    c. Storage Provide: HTTPS: Public Web
    d. API URL
2. Setup Destination
    a. Name: Snowflake
    b. Host: {accountname}.{aws_location}.aws.snowflakecomputing.com
       Eg: fd00396.ap-south-1.aws.snowflakecomputing.com
    c. Role: ACCOUNTADMIN
    d. Warehouse: COMPUTE_WH
    e. Database: demo_ai101
    f. Default Schema: public
    g. Username: piyushbytepx
    h. Authorization Type: Username and Password

        i. Password: xxxx
    3. Setup Schedule
    4. Run the Pipeline
    5. Validate data into Snowflake
        a. Tables created by Airbyte
        b. Preview the data
        c. Run the SQL or create view on the table (**Transformation Layer**)

            Eg:

            CREATE VIEW TRANSFORMATION_VIEW AS
            (Select GENDER,RACE, concat(CHANGE, ' TEMP') as transformed_column from DEMO_AI101.public."HOSPITAL API" limit 10);

Step 7: Download Tableau Desktop (https://www.tableau.com/products/desktop/download)

Step 8. Connect Tableau with Snowflake

Step 9: Try to Analyse data using Tableau

Step 10: Create a basic dashboard and publish on Tableau Public