Group -5 Project - Cyclistic Bike Share

Abstract

Bike sharing rental systems are of tremendous interest because of their crucial function in transportation, environmental, and health issues. This scheme is an ideal solution for an eco-friendly (sustainable) alternative for short-trip traveling. These technologies make it simple for users to rent bikes from one location and drop them off at a different location. The bikes are geotagged and the frequency can be predicted using the pickup location and the drop location. The company distinguishes its rides into 3 categories which would be the single ride passes, full day passes and annual memberships. Like in any other subscription plan, the annual members benefit more than casual riders, initiatives have to be made to turn casual members into premium which would ultimately support the organization's growth.

The purpose of this project is to analyze a complex historical dataset. We will be leveraging the ETL process which encompasses data extraction, transformation, and loading of the pipeline. We will use it to load data into the data warehouse and this data would further be mined to gain insights.

Dataset Link: https://divvy-tripdata.s3.amazonaws.com/index.html

The dataset which we will be using for this project is taken from divvy-trip data. The data is collected from 2013 till the present month. This dataset has 13 columns. It includes Trip start date and time, Trip end date and time, Trip start station, Trip end station, and Rider type (Member, Single Ride, and Day Pass). It does not have data on the trips taken by staff members, which were taken for service checks and inspections.

Reference Links:

1] ApacheAirflow Documentation :
https://airflow.apache.org/docs/apache-airflow/stable/tutorial/index.html

2] ETL Process Overview: https://www.stitchdata.com/etldatabase/etl-process/

3]Dataset : https://www.kaggle.com/code/temitayomabelibiloye/cyclistic-bike-share/data

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