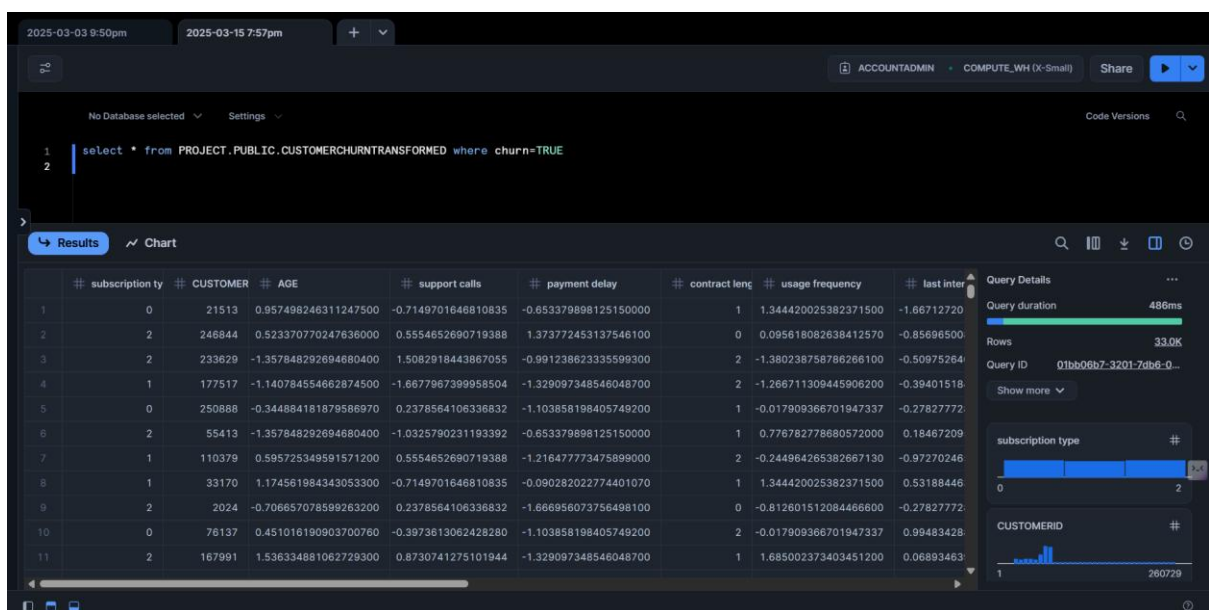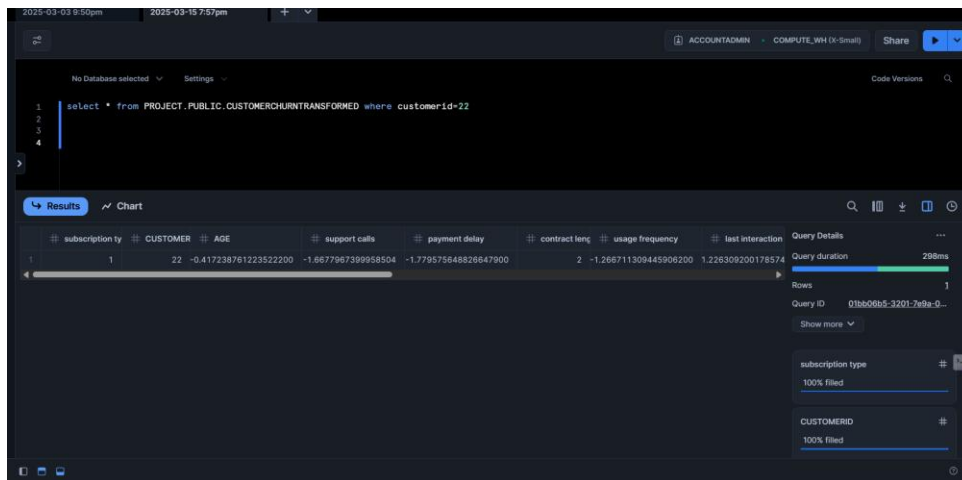# Table Schema

```sql
create or replace TABLE PROJECT.PUBLIC.CUSTOMERCHURNTRANSFORMED (
        "subscription type" NUMBER(38,0),
        CUSTOMERID NUMBER(38,0),
        AGE NUMBER(38,18),
        "support calls" NUMBER(38,16),
        "payment delay" NUMBER(38,18),
        "contract length" NUMBER(38,0),
        "usage frequency" NUMBER(38,18),
        "last interaction" NUMBER(38,17),
        GENDER NUMBER(38,0),
        "total spend" NUMBER(38,19),
        CHURN BOOLEAN,
        TENURE NUMBER(38,19),
        "Avg Spend Per Tenure" NUMBER(38,19),
        "Recency Score" NUMBER(38,17),
        "Churn Risk Score" NUMBER(38,20),
        CLV NUMBER(38,19)
);
```

Sample queries

Transformation Logic

StandardScaler is a preprocessing technique in **scikit-learn** that standardizes (normalizes) features by **removing the mean** and **scaling to unit variance**. It is commonly used in machine learning pipelines to ensure that all features have a similar scale, which helps models converge faster and perform better.

Formula

Formula

For each feature X:

$$X' = \frac{X - \mu}{\sigma}$$

where:

- X' = Standardized feature value
- X = Original feature value
- μ = Mean of the feature
- σ = Standard deviation of the feature

This transforms the data into a distribution with:

- **Mean = 0**
- **Standard Deviation = 1**