Data Cleaning

```sql
--- See the Data type and column names

select column_name , data_type

from INFORMATION_SCHEMA.COLUMNS

where table_name = 'churn_data';


--Check Null values.

select * from churn_data

where customerID is null

or

gender is null

or

SeniorCitizen is null

or

Partner is null

or

Dependents is null

or

tenure is null

or

PhoneService is null

or

MultipleLines is null

or

InternetService is null
```

or

OnlineSecurity is null

or

OnlineBackup is null

or

DeviceProtection is null

or

TechSupport is null

or

StreamingTV is null

or

StreamingMovies is null

or

Contract is null

or

PaperlessBilling is null

or

PaymentMethod is null

or

MonthlyCharges is null

or

Totalcharges is null

or

Churn is null;

```sql
--Find Duplicate values .

with Dup_cte as (

            select *,

            ROW_NUMBER() over(partition by customerID order by tenure) as rn

            From churn_data

      )

      select  *  from Dup_cte

      where count_rows > 1;




-- Remove Duplicate Values

      with Dup_cte as (

                  select *,

                  ROW_NUMBER() over(partition by customerID order by tenure) as rn

                  From churn_data

      )

      delete from Dup_cte

      where count_rows > 1;



--In Totalcharges column Replace null value with 0

update churn_data

set Totalcharges = 0

where Totalcharges is null ;
```

```sql
--Contract column Standardization (month to month to Month-to-month )

update churn_data

set Contract = 'Month-To-Month'

where Contract = 'month to month' ;
```