Data Cleaning

--- 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 ;

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

update churn_data set Contract = 'Month-To-Month' where Contract =

'month to month' ;

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- ## Measure

1.Total Customers :
Total Customer = COUNT(telco_churn_unclean[customerID]).

2. Retained Customers
Retained Customers =
CALCULATE(COUNT(telco_churn_unclean[customerID]),telco_churn_unclean[Churn] = "No")

3. Churned Customer
Churned Customer =
CALCULATE(COUNT(telco_churn_unclean[customerID]),telco_churn_unclean[Churn]="Yes")

4. Churn Rate %
Churn Rate % = DIVIDE([Churned Customer],[Total Customer],0)

5. Avg Monthly charges(Retained)

Avg Monthly charges(Retained) =
CALCULATE(AVERAGE(telco_churn_unclean[MonthlyCharges]),telco_churn_unclean[Churn] =
"No")

6. Avg Monthly charges(Churned)

Avg Monthly charges(Churned) =
CALCULATE(AVERAGE(telco_churn_unclean[MonthlyCharges]),telco_churn_unclean[Churn] =
"Yes")

7. Avg Monthly Charges

Avg Monthly Charges = AVERAGE(telco_churn_unclean[MonthlyCharges])

- ## Calculated Columns

1.Customer Type

Customer Type = IF(telco_churn_unclean[tenure] <= 6,"New Customer","Existing Customer")

2. Risk Type

Risk Type = IF(telco_churn_unclean[Contract] = "Month-To-Month" &&
telco_churn_unclean[tenure]<= 6 ,"High Risk" , "Normal")

3. Tenure Band

Tenure Band = IF(telco_churn_unclean[tenure] <= 6, "0-6
Months",IF(telco_churn_unclean[tenure]<= 12 , "6-12 Months","12+ Months"))