create database db\_customer;

use db\_customer;

SELECT \*

FROM [db\_customer].[dbo].[stage\_data];

select Gender, COUNT(Gender) Gender\_count,

round(count(Gender)\*100.0/(select count(\*) from stage\_data),2) Percentage

from stage\_data

group by Gender;

select Contract, COUNT(\*) Contract\_count,

round(count(Contract)\*100.0/(select count(\*) from stage\_data),2) Percentage

from stage\_data

group by Contract

order by 1;

**Data Exploration – Check Nulls**

SELECT 'Customer\_ID' AS Column\_Name, SUM(CASE WHEN Customer\_ID IS NULL THEN 1 ELSE 0 END) AS Null\_Count FROM stage\_data

UNION ALL

SELECT 'Gender', SUM(CASE WHEN Gender IS NULL THEN 1 ELSE 0 END) FROM stage\_data

UNION ALL

SELECT 'Age', SUM(CASE WHEN Age IS NULL THEN 1 ELSE 0 END) FROM stage\_data

UNION ALL

SELECT 'Married', SUM(CASE WHEN Married IS NULL THEN 1 ELSE 0 END) FROM stage\_data

UNION ALL

SELECT 'State', SUM(CASE WHEN State IS NULL THEN 1 ELSE 0 END) FROM stage\_data

UNION ALL

SELECT 'Number\_of\_Referrals', SUM(CASE WHEN Number\_of\_Referrals IS NULL THEN 1 ELSE 0 END) FROM stage\_data

UNION ALL

SELECT 'Tenure\_in\_Months', SUM(CASE WHEN Tenure\_in\_Months IS NULL THEN 1 ELSE 0 END) FROM stage\_data

UNION ALL

SELECT 'Value\_Deal', SUM(CASE WHEN Value\_Deal IS NULL THEN 1 ELSE 0 END) FROM stage\_data

UNION ALL

SELECT 'Phone\_Service', SUM(CASE WHEN Phone\_Service IS NULL THEN 1 ELSE 0 END) FROM stage\_data

UNION ALL

SELECT 'Multiple\_Lines', SUM(CASE WHEN Multiple\_Lines IS NULL THEN 1 ELSE 0 END) FROM stage\_data

UNION ALL

SELECT 'Internet\_Service', SUM(CASE WHEN Internet\_Service IS NULL THEN 1 ELSE 0 END) FROM stage\_data

UNION ALL

SELECT 'Internet\_Type', SUM(CASE WHEN Internet\_Type IS NULL THEN 1 ELSE 0 END) FROM stage\_data

UNION ALL

SELECT 'Online\_Security', SUM(CASE WHEN Online\_Security IS NULL THEN 1 ELSE 0 END) FROM stage\_data

UNION ALL

SELECT 'Online\_Backup', SUM(CASE WHEN Online\_Backup IS NULL THEN 1 ELSE 0 END) FROM stage\_data

UNION ALL

SELECT 'Device\_Protection\_Plan', SUM(CASE WHEN Device\_Protection\_Plan IS NULL THEN 1 ELSE 0 END) FROM stage\_data

UNION ALL

SELECT 'Premium\_Support', SUM(CASE WHEN Premium\_Support IS NULL THEN 1 ELSE 0 END) FROM stage\_data

UNION ALL

SELECT 'Streaming\_TV', SUM(CASE WHEN Streaming\_TV IS NULL THEN 1 ELSE 0 END) FROM stage\_data

UNION ALL

SELECT 'Streaming\_Movies', SUM(CASE WHEN Streaming\_Movies IS NULL THEN 1 ELSE 0 END) FROM stage\_data

UNION ALL

SELECT 'Streaming\_Music', SUM(CASE WHEN Streaming\_Music IS NULL THEN 1 ELSE 0 END) FROM stage\_data

UNION ALL

SELECT 'Unlimited\_Data', SUM(CASE WHEN Unlimited\_Data IS NULL THEN 1 ELSE 0 END) FROM stage\_data

UNION ALL

SELECT 'Contract', SUM(CASE WHEN Contract IS NULL THEN 1 ELSE 0 END) FROM stage\_data

UNION ALL

SELECT 'Paperless\_Billing', SUM(CASE WHEN Paperless\_Billing IS NULL THEN 1 ELSE 0 END) FROM stage\_data

UNION ALL

SELECT 'Payment\_Method', SUM(CASE WHEN Payment\_Method IS NULL THEN 1 ELSE 0 END) FROM stage\_data

UNION ALL

SELECT 'Monthly\_Charge', SUM(CASE WHEN Monthly\_Charge IS NULL THEN 1 ELSE 0 END) FROM stage\_data

UNION ALL

SELECT 'Total\_Charges', SUM(CASE WHEN Total\_Charges IS NULL THEN 1 ELSE 0 END) FROM stage\_data

UNION ALL

SELECT 'Total\_Refunds', SUM(CASE WHEN Total\_Refunds IS NULL THEN 1 ELSE 0 END) FROM stage\_data

UNION ALL

SELECT 'Total\_Extra\_Data\_Charges', SUM(CASE WHEN Total\_Extra\_Data\_Charges IS NULL THEN 1 ELSE 0 END) FROM stage\_data

UNION ALL

SELECT 'Total\_Long\_Distance\_Charges', SUM(CASE WHEN Total\_Long\_Distance\_Charges IS NULL THEN 1 ELSE 0 END) FROM stage\_data

UNION ALL

SELECT 'Total\_Revenue', SUM(CASE WHEN Total\_Revenue IS NULL THEN 1 ELSE 0 END) FROM stage\_data

UNION ALL

SELECT 'Customer\_Status', SUM(CASE WHEN Customer\_Status IS NULL THEN 1 ELSE 0 END) FROM stage\_data

UNION ALL

SELECT 'Churn\_Category', SUM(CASE WHEN Churn\_Category IS NULL THEN 1 ELSE 0 END) FROM stage\_data

UNION ALL

SELECT 'Churn\_Reason', SUM(CASE WHEN Churn\_Reason IS NULL THEN 1 ELSE 0 END) FROM stage\_data;

**Remove null and insert the new data into Prod table**

SELECT

Customer\_ID,

Gender,

Age,

Married,

State,

Number\_of\_Referrals,

Tenure\_in\_Months,

ISNULL(Value\_Deal, 'None') AS Value\_Deal,

Phone\_Service,

ISNULL(Multiple\_Lines, 'No') As Multiple\_Lines,

Internet\_Service,

ISNULL(Internet\_Type, 'None') AS Internet\_Type,

ISNULL(Online\_Security, 'No') AS Online\_Security,

ISNULL(Online\_Backup, 'No') AS Online\_Backup,

ISNULL(Device\_Protection\_Plan, 'No') AS Device\_Protection\_Plan,

ISNULL(Premium\_Support, 'No') AS Premium\_Support,

ISNULL(Streaming\_TV, 'No') AS Streaming\_TV,

ISNULL(Streaming\_Movies, 'No') AS Streaming\_Movies,

ISNULL(Streaming\_Music, 'No') AS Streaming\_Music,

ISNULL(Unlimited\_Data, 'No') AS Unlimited\_Data,

Contract,

Paperless\_Billing,

Payment\_Method,

Monthly\_Charge,

Total\_Charges,

Total\_Refunds,

Total\_Extra\_Data\_Charges,

Total\_Long\_Distance\_Charges,

Total\_Revenue,

Customer\_Status,

ISNULL(Churn\_Category, 'Others') AS Churn\_Category,

ISNULL(Churn\_Reason , 'Others') AS Churn\_Reason

INTO prod\_data

FROM stage\_data;

**Create View for Power BI**

create view vw\_ChurnData as

select \* from prod\_data

where Customer\_Status in ('Churned','Stayed');

Create View vw\_JoinData as

select \* from prod\_Churn where Customer\_Status = 'Joined'