**Data Exploration – Check Distinct Values**

**Select**\***from** Customer\_data

**SELECT** Gender, **Count**(Gender) **as** TotalCount,

**Count**(Gender)\***100**.**0** / (**Select** **Count**(\*) **from** Customer\_Data) **as** Percentage

**from** Customer\_Data

**Group** **by** Gender;

**SELECT** Contract, **Count**(Contract) **as** TotalCount,

**Count**(Contract) \***1**.**0** / (**Select** **Count**(\*) **from** Customer\_Data) **as** Percentage

**from** Customer\_Data

**Group** **by** Contract;

**SELECT** Customer\_Status, **Count**(Customer\_Status) **as** TotalCount, **Sum**(Total\_Revenue) **as** TotalRev,

**Sum**(Total\_Revenue) / (**Select** **sum**(Total\_Revenue) **from** Customer\_Data) \* **100** **as** RevPercentage

**from** Customer\_Data

**Group** **by** Customer\_Status

**SELECT** **State**, **Count**(**State**) **as** TotalCount,

**Count**(**State**)\***100**.**0** / (**Select** **Count**(\*) **from** Customer\_Data) **as** Percentage

**from** Customer\_Data

**Group** **by** **State**

**Order** **by** Percentage **desc**

**select** **distinct** Internet\_Type

**from** Customer\_Data

**Data Exploration – Check Nulls**

**SELECT**

**SUM**(**CASE** **WHEN** Customer\_ID **IS** **NULL** **THEN** **1** **ELSE** **0** **END**) **AS** Customer\_ID\_Null\_Count,

**SUM**(**CASE** **WHEN** Gender **IS** **NULL** **THEN** **1** **ELSE** **0** **END**) **AS** Gender\_Null\_Count,

**SUM**(**CASE** **WHEN** Age **IS** **NULL** **THEN** **1** **ELSE** **0** **END**) **AS** Age\_Null\_Count,

**SUM**(**CASE** **WHEN** Married **IS** **NULL** **THEN** **1** **ELSE** **0** **END**) **AS** Married\_Null\_Count,

**SUM**(**CASE** **WHEN** **State** **IS** **NULL** **THEN** **1** **ELSE** **0** **END**) **AS** State\_Null\_Count

**SUM**(**CASE** **WHEN** Number\_of\_Referrals **IS** **NULL** **THEN** **1** **ELSE** **0** **END**) **AS** Number\_of\_Referrals\_Null\_Count,

**SUM**(**CASE** **WHEN** Tenure\_in\_Months **IS** **NULL** **THEN** **1** **ELSE** **0** **END**) **AS** Tenure\_in\_Months\_Null\_Count,

**SUM**(**CASE** **WHEN** Value\_Deal **IS** **NULL** **THEN** **1** **ELSE** **0** **END**) **AS** Value\_Deal\_Null\_Count,

**SUM**(**CASE** **WHEN** Phone\_Service **IS** **NULL** **THEN** **1** **ELSE** **0** **END**) **AS** Phone\_Service\_Null\_Count,

**SUM**(**CASE** **WHEN** Multiple\_Lines **IS** **NULL** **THEN** **1** **ELSE** **0** **END**) **AS** Multiple\_Lines\_Null\_Count,

**SUM**(**CASE** **WHEN** Internet\_Service **IS** **NULL** **THEN** **1** **ELSE** **0** **END**) **AS** Internet\_Service\_Null\_Count,

**SUM**(**CASE** **WHEN** Internet\_Type **IS** **NULL** **THEN** **1** **ELSE** **0** **END**) **AS** Internet\_Type\_Null\_Count,

**SUM**(**CASE** **WHEN** Online\_Security **IS** **NULL** **THEN** **1** **ELSE** **0** **END**) **AS** Online\_Security\_Null\_Count,

**SUM**(**CASE** **WHEN** Online\_Backup **IS** **NULL** **THEN** **1** **ELSE** **0** **END**) **AS** Online\_Backup\_Null\_Count,

**SUM**(**CASE** **WHEN** Device\_Protection\_Plan **IS** **NULL** **THEN** **1** **ELSE** **0** **END**) **AS** Device\_Protection\_Plan\_Null\_Count,

**SUM**(**CASE** **WHEN** Premium\_Support **IS** **NULL** **THEN** **1** **ELSE** **0** **END**) **AS** Premium\_Support\_Null\_Count,

**SUM**(**CASE** **WHEN** Streaming\_TV **IS** **NULL** **THEN** **1** **ELSE** **0** **END**) **AS** Streaming\_TV\_Null\_Count,

**SUM**(**CASE** **WHEN** Streaming\_Movies **IS** **NULL** **THEN** **1** **ELSE** **0** **END**) **AS** Streaming\_Movies\_Null\_Count,

**SUM**(**CASE** **WHEN** Streaming\_Music **IS** **NULL** **THEN** **1** **ELSE** **0** **END**) **AS** Streaming\_Music\_Null\_Count,

**SUM**(**CASE** **WHEN** Unlimited\_Data **IS** **NULL** **THEN** **1** **ELSE** **0** **END**) **AS** Unlimited\_Data\_Null\_Count,

**SUM**(**CASE** **WHEN** Contract **IS** **NULL** **THEN** **1** **ELSE** **0** **END**) **AS** Contract\_Null\_Count,

**SUM**(**CASE** **WHEN** Paperless\_Billing **IS** **NULL** **THEN** **1** **ELSE** **0** **END**) **AS** Paperless\_Billing\_Null\_Count,

**SUM**(**CASE** **WHEN** Payment\_Method **IS** **NULL** **THEN** **1** **ELSE** **0** **END**) **AS** Payment\_Method\_Null\_Count,

**SUM**(**CASE** **WHEN** Monthly\_Charge **IS** **NULL** **THEN** **1** **ELSE** **0** **END**) **AS** Monthly\_Charge\_Null\_Count,

**SUM**(**CASE** **WHEN** Total\_Charges **IS** **NULL** **THEN** **1** **ELSE** **0** **END**) **AS** Total\_Charges\_Null\_Count,

**SUM**(**CASE** **WHEN** Total\_Refunds **IS** **NULL** **THEN** **1** **ELSE** **0** **END**) **AS** Total\_Refunds\_Null\_Count,

**SUM**(**CASE** **WHEN** Total\_Extra\_Data\_Charges **IS** **NULL** **THEN** **1** **ELSE** **0** **END**) **AS** Total\_Extra\_Data\_Charges\_Null\_Count,

**SUM**(**CASE** **WHEN** Total\_Long\_Distance\_Charges **IS** **NULL** **THEN** **1** **ELSE** **0** **END**) **AS** Total\_Long\_Distance\_Charges\_Null\_Count,

**SUM**(**CASE** **WHEN** Total\_Revenue **IS** **NULL** **THEN** **1** **ELSE** **0** **END**) **AS** Total\_Revenue\_Null\_Count,

**SUM**(**CASE** **WHEN** Customer\_Status **IS** **NULL** **THEN** **1** **ELSE** **0** **END**) **AS** Customer\_Status\_Null\_Count,

**SUM**(**CASE** **WHEN** Churn\_Category **IS** **NULL** **THEN** **1** **ELSE** **0** **END**) **AS** Churn\_Category\_Null\_Count,

**SUM**(**CASE** **WHEN** Churn\_Reason **IS** **NULL** **THEN** **1** **ELSE** **0** **END**) **AS** Churn\_Reason\_Null\_Count

**FROM** Customer\_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** [db\_Chrun].[dbo].[prod\_Chrun]

**FROM** [db\_Chrun].[dbo].[Customer\_Data];

**Create View for Power BI**

**Create** **View** vw\_ChurnData **as**

**select** \* **from** prod\_Chrun **where** Customer\_Status **In** ('Churned', 'Stayed')

**Create** **View** vw\_JoinData **as**

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