

TELECOM CUSTOMER CHURN ANALYSIS (POWER BI + SQL + MACHINE LEARNING)

POWER QUERY TRANSFORMATIONS

Add a new column in prod_Churn

1. Churn Status = if [Customer_Status] = "Churned" then 1 else 0
2. Change Churn Status data type to numbers
3. Monthly Charge Range = if [Monthly_Charge] < 20 then "< 20" else if [Monthly_Charge] < 50 then "20-50" else if [Monthly_Charge] < 100 then "50-100" else "> 100"

Create a New Table Reference for mapping_AgeGrp

1. Keep only Age column and remove duplicates
2. Age Group = if [Age] < 20 then "< 20" else if [Age] < 36 then "20 - 35" else if [Age] < 51 then "36 - 50" else "> 50"
3. AgeGrpSorting = if [Age Group] = "< 20" then 1 else if [Age Group] = "20 - 35" then 2 else if [Age Group] = "36 - 50" then 3 else 4
4. Change data type of AgeGrpSorting

Create a New Table Reference for mapping_TenureGrp

1. Keep only Tenure_in_Months and remove duplicates
2. Tenure Group = if [Tenure_in_Months] < 6 then "< 6 Months" else if [Tenure_in_Months] < 12 then "6-12 Months" else if [Tenure_in_Months] < 18 then "12-18 Months" else if [Tenure_in_Months] < 24 then "18-24 Months" else ">= 24 Months"
3. TenureGrpSorting = if [Tenure_in_Months] = "< 6 Months" then 1 else if [Tenure_in_Months] = "6-12 Months" then 2 else if [Tenure_in_Months] = "12-18 Months" then 3 else if [Tenure_in_Months] = "18-24 Months" then 4 else 5
4. Change data type of TenureGrpSorting

Create a New Table Reference for prod_Services

1. Unpivot services columns
2. Rename Column –
 - a. Attribute >> Services
 - b. Value >> Status

CHURN SUMMARY PAGE - MEASURES

Total Customers = **COUNT** (prod_Churn[Customer_ID])

New Joiners = **CALCULATE** (**COUNT** (prod_Churn[Customer_ID]), prod_Churn[Customer_Status] = "Joined")

Total Churn = **SUM** (prod_Churn[Churn Status])

Churn Rate = [Total Churn] / [Total Customers]

CHURN PREDICTION PAGE - MEASURES

Count Predicted Churner = `COUNT (Joined Predictions [Customer_ID]) + 0`

Title Predicted Churners = `"COUNT OF PREDICTED CHURNERS: " & COUNT (Joined Predictions [Customer_ID])`