Analysis - Documentation

# 1. Process Steps

• **Data Import** : Load the customer dataset (CSV) into Power BI.  
• **Data Cleaning**:  
 - Handle missing || null values.  
 - Convert categorical fields .  
 - Create calculated measures using DAX.  
**• Data Modeling**:  
 - Create Measures such as:  
 - Churn Rate = DIVIDE(CALCULATE(COUNTROWS(CustomerTable), CustomerTable[Churn]="Yes"), COUNTROWS(CustomerTable))  
 - Avg Tenure Retained = AVERAGEX(FILTER(CustomerTable, CustomerTable[Churn]="No"), CustomerTable[tenure])  
 - Avg Tenure Churned = AVERAGEX(FILTER(CustomerTable, CustomerTable[Churn]="Yes"), CustomerTable[tenure])  
• **Visualization**:  
 - KPI Cards (Churn Rate, Avg Tenure Retained, Avg Tenure Churned).  
 - Bar Charts (Churn Rate by Contract, Internet Service).  
 - Donut Chart (Tenure distribution by Contract Type).  
 - Line Chart (Churn trend over time).  
 - Matrix (Churn by Gender, Dependents, Partner).

# 2. Key Findings

• Month-to-Month contract customers show the highest churn rate.  
• Fiber optic internet service customers have significantly higher churn.  
• Two-Year contract customers show the lowest churn rate.  
• The average tenure of retained customers is almost double that of churned customers.  
• Churn trends show gradual increases between 2018 and 2024.

# 3. Recommendations

• Incentivize customers on Month-to-Month contracts to move to One-Year or Two-Year contracts through discounts or offers.  
• Improve service quality for Fiber Optic users to reduce dissatisfaction.  
• Introduce loyalty programs and rewards for long-tenure customers.  
• Enhance customer support for new customers during the first year to reduce early churn.