Executive Summary: Customer Churn Analysis

Objective : The analysis primarily investigates factors influencing customer churn, particularly focusing on payment methods and contract types

Key Observations:

1. Overall Churn Rate: Approximately **26.54%** of the customer base has churned, indicating a significant retention challenge.

2. Demographic Influence:

    - **Gender**: Churn rates are very similar between male and female customers, with a slight edge in female churn.
    - **Senior Citizens**: A notably higher percentage of senior citizens **(42%)** churn compared to non-senior citizens (24%), suggesting this demographic is at greater risk.

3. **Tenure Impact**: Customer churn is highest in the initial months of service, decreasing significantly as tenure increases. Long-term customers show greater loyalty.

4. **Contract Type**: Customers on a month-to-month contract exhibit a substantially higher churn rate compared to those with one-year or two-year contracts, highlighting the importance of long-term commitments.

5. **Service Subscriptions**:

    - Absence of services like **Online Security, Online Backup, Device Protection, and Tech Support** is strongly correlated with increased churn (around 40% of customers without these services churned).
    - Customers with **Fiber Optic internet service** also show a higher churn rate (**40%**).

6. **Payment Method**: Customers using **Electronic Check** payment methods have the highest churn rate, whereas those with automatic payment methods (Bank Transfer or Credit Card) show lower churn.

Conclusion:

Customer churn is primarily driven by factors such as short tenure, flexible month-to-month contracts, lack of security and support services, and specific payment preferences (Electronic Check). The senior citizen demographic also represents a high-risk group. Addressing these areas through targeted retention campaigns, incentivizing longer contracts, promoting value-added services, and exploring alternative payment solutions could significantly improve customer retention.