

## **Business Problems**

### 1. Which Customers Are Most Likely to Churn?

Answer:

Customers with the following characteristics are most likely to churn -

Low Tenure: Customers who have been with the company for less than 2 months.

High Monthly Charges: Customers paying more than \$100 per month.

Month-to-Month Contracts: Customers not locked into long-term contracts.

No Online Security or Tech Support: Customers who lack additional support services.

Fiber optic: Customers using fiber optic internet are more likely to churn.

Electronic check: Customers who use electronic check as their payment method are more likely to churn.

### 2. How Can We Reduce Churn?

Answer:

Based on the analysis, the following strategies can help reduce churn:

Targeted Retention Programs: Identify high-risk customers and offer them personalized retention plans (e.g., discounts, free upgrades).

Improve Support Services: Provide free or discounted online security and tech support to customers who lack these services.

Promote Long-Term Contracts: Incentivize customers to switch from month-to-month contracts to one-year or two-year contracts.

### 3. What Is the Probability of Churn for a Specific Customer?

Answer:

For a customer with the following profile:

Tenure: 2 months

Monthly Charges: \$200

Contract: Month-to-Month

Payment Method: Electronic Check

Internet Service: Fiber Optic

Online Security: No

Tech Support: No

Paperless Billing: Yes

Dependents: No

The predicted churn probability is 46%.

#### 4. What Is the Financial Impact of Churn?

Answer

If there are 1,000 customers, 200 customers churn each month.

This results in a monthly revenue loss of \$20,000.

Invest in retention strategies to reduce churn and recover lost revenue. For example, reducing churn by 5% could save \$5,000 per month.

#### 5. Which Customer Segments Are Most Profitable?

Answer:

Customers with the following characteristics are most profitable:

Long Tenure: Customers who have been with the company for more than 12 months.

Low Monthly Charges: Customers paying less than \$50 per month but with long-term contracts.

Additional Services: Customers who subscribe to online security, tech support, or premium internet services.