**Exploratory data analysis**

Telco company wants to investigate some of the reasons that could be leading to customer churn and they've provided you with a dataset and asked you to discover at least five elements that might be contributors to customer churn.

Turn your most insightful findings into a Dashboard that you would like to share with the management.

Meta Data

Customer ID: customerID

Gender: Whether the customer is a male or a female

SeniorCitizen: Whether the customer is a senior citizen or not (1, 0)

Partner: Whether the customer has a partner or not (Yes, No)

Dependents: Whether the customer has dependents or not (Yes, No)

Tenure: Number of months the customer has stayed with the company

PhoneService: Whether the customer has a phone service or not (Yes, No)

MultipleLines: Whether the customer has multiple lines or not (Yes, No, No phone service)

InternetService: Customer’s internet service provider (DSL, Fiber optic, No)

OnlineSecurity: Whether the customer has online security or not (Yes, No, No internet service)

OnlineBackup: Whether the customer has online backup or not (Yes, No, No internet service)

DeviceProtection: Whether the customer has device protection or not (Yes, No, No internet service)

TechSupport: Whether the customer has tech support or not (Yes, No, No internet service)

StreamingTV: Whether the customer has streaming TV or not (Yes, No, No internet service)

StreamingMovies: Whether the customer has streaming movies or not (Yes, No, No internet service)

Contract: The contract term of the customer (Month-to-month, One year, Two year)

PaperlessBilling: Whether the customer has paperless billing or not (Yes, No)

PaymentMethod: The customer’s payment method (Electronic check, Mailed check, Bank transfer (automatic), Credit card (automatic))

MonthlyCharges: The amount charged to the customer monthly

TotalCharges: The total amount charged to the customer

Churn: Whether the customer churned or not (Yes or No)

**Find the answers to the following questions and present it in a dashboard:**

1. What is the churn rate?
2. what is the percentage of the new customers who have left the company after the first months relative to all new customers?
3. Does the type of contract affect the customer's decision to leave the company? and if so, What offers can the company make to decrease the churn rate?
4. Does the company get more churn from phone service or internet service?
5. How does the type of the internet service affect customer churn?
6. The marketing team believes that the more services a customer have the less likely he/she will leave the company. Does the data prove or disprove their theory?