Customer Churn Analysis - Metadata Variables Documentation

Introduction

This document provides a detailed explanation of the variables used in the **Customer Churn Analysis** dataset. Each variable is described in terms of its data type, meaning, and possible values to assist in understanding and analyzing the dataset effectively.

Metadata Variables

1. Customer Information

- **customerID** *(String)*: A unique identifier assigned to each customer.

- **gender** *(Factor)*: The gender of the customer. *(Values: Male, Female)*

- **SeniorCitizen** *(Integer)*: Indicates if the customer is a senior citizen. *(Values: 0 = No, 1 = Yes)*

- **Partner** *(Factor)*: Whether the customer has a partner. *(Values: Yes, No)*

- **Dependents** *(Factor)*: Whether the customer has dependents. *(Values: Yes, No)*

2. Service Information

- **tenure** *(Integer)*: The number of months the customer has stayed with the company.

- **PhoneService** *(Factor)*: Whether the customer has phone service. *(Values: Yes, No)*

- **MultipleLines** *(Factor)*: Whether the customer has multiple lines. *(Values: Yes, No, No phone service)*

- **InternetService** *(Factor)*: Type of internet service subscribed. *(Values: DSL, Fiber optic, No)*

- **OnlineSecurity** *(Factor)*: Whether the customer has online security service. *(Values: Yes, No, No internet service)*

- **OnlineBackup** *(Factor)*: Whether the customer has an online backup service. *(Values: Yes, No, No internet service)*

- **DeviceProtection** *(Factor)*: Whether the customer has device protection. *(Values: Yes, No, No internet service)*

- **TechSupport** *(Factor)*: Whether the customer has technical support. *(Values: Yes, No, No internet service)*

- **StreamingTV** *(Factor)*: Whether the customer has a streaming TV service. *(Values: Yes, No, No internet service)*

- **StreamingMovies** *(Factor)*: Whether the customer has a streaming movies service. *(Values: Yes, No, No internet service)*

3. Billing and Payment Information

- **Contract** *(Factor)*: The type of contract the customer has. *(Values: Month-to-month, One year, Two year)*

- **PaperlessBilling** *(Factor)*: Whether the customer has opted for paperless billing. *(Values: Yes, No)*

- **PaymentMethod** *(Factor)*: The payment method used by the customer. *(Values: Electronic check, Mailed check, Bank transfer (automatic), Credit card (automatic))*

- **MonthlyCharges** *(Numeric)*: The monthly amount charged to the customer.

- **TotalCharges** *(Numeric)*: The total amount charged to the customer over their tenure.

4. Target Variable

- **Churn** *(Factor)*: Whether the customer has churned or not. *(Values: Yes, No)*

Conclusion

This metadata documentation helps in understanding the dataset structure, facilitating better data analysis and interpretation. It ensures consistency and clarity for anyone working with the dataset.

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Date: 24-02-2025