Module 6: Assignment 4 – Null Deviance & Residual Deviance

Problem Statement:

You work in XYZ Corporation as a Machine Learning Engineer. After splitting the data into train and test sets, now the corporation wants you to train the multiple logistic regression model.

Tasks to be performed:

1. After splitting the data frame into train and test sets, build a multiple logistic model on top of the train set for the city_temperature data frame.
    a. For this model, take AvgTemperature, Day, Month, and Year as the independent variable and Region as the dependent variable.
    b. Now analyze the null deviance and residual deviance.
2. After splitting the data frame into train and test sets, build a multiple logistic model on top of the train set for the Customer_Churn data frame.
    a. For this model, take tenure, Streaming TV, Monthly Charges, and Total Charges as the independent variable and Churn as dependent variable.
    b. After training, analyze the null deviance and residual deviance.
3. After splitting the data frame into train and test sets, build a multiple logistic model on top of the train set for the Pharmacovigilance_audit_Data data frame.
    a. For this model, take Gender, Age, and Patient_Id as independent variable and DrugId as dependent variable.
    b. Now analyze the null deviance and residual deviance.