import pandas as pd

import matplotlib.pyplot as plt

import seaborn as sns

# Load dataset (update path if needed)

df = pd.read\_csv('D:\customer\WA\_Fn-UseC\_-Telco-Customer-Churn.csv')

# Basic preprocessing

df['TotalCharges'] = pd.to\_numeric(df['TotalCharges'], errors='coerce')

df.dropna(inplace=True)

df['Churn'] = df['Churn'].map({'Yes': 'Yes', 'No': 'No'})

# Plot 1: Countplot of Churn

plt.figure(figsize=(6,4))

sns.countplot(x='Churn', data=df)

plt.title('Count of Churn')

plt.show()

# Plot 2: Boxplot of Monthly Charges by Churn

plt.figure(figsize=(6,4))

sns.boxplot(x='Churn', y='MonthlyCharges', data=df)

plt.title('Monthly Charges by Churn')

plt.show()

# Plot 3: Barplot of Churn Rate by Contract Type

churn\_rate = df.groupby('Contract')['Churn'].apply(lambda x: (x=='Yes').mean()).reset\_index()

plt.figure(figsize=(6,4))

sns.barplot(x='Contract', y='Churn', data=churn\_rate)

plt.title('Churn Rate by Contract Type')

plt.ylabel('Churn Rate')

plt.show()