Time Series Analysis

Prophet Model

```
!pip install fbprophet
```

⮐ Show hidden output

```
from prophet import Prophet


import pandas as pd
# read a csv file to dataframe
df = pd.read_csv('/content/SalesDaily (1).csv')


df = df.tail(150)


df['Date'] = pd.to_datetime(df['Date'], format='%d-%m-%Y')


df.head()
```

⮐ Show hidden output

Next steps: [Generate code with df]   [🔘 View recommended plots]   [New interactive sheet]

```
# Create and fit the Prophet model
ts_data_edit = df[['Date', 'M01AB']]
ts_data_edit.rename(columns= {'Date':'ds','M01AB':'y'},inplace= True)
model = Prophet()
model.fit(ts_data_edit)

# Make future predictions
future = model.make_future_dataframe(periods=30)
forecast = model.predict(future)

# Visualize the forecast
from prophet.plot import add_changepoints_to_plot
import matplotlib.pyplot as plt

# Assuming you have already fitted a Prophet model and have a forecast named 'forecast'

# Create a Prophet forecast plot
fig = model.plot(forecast)
```
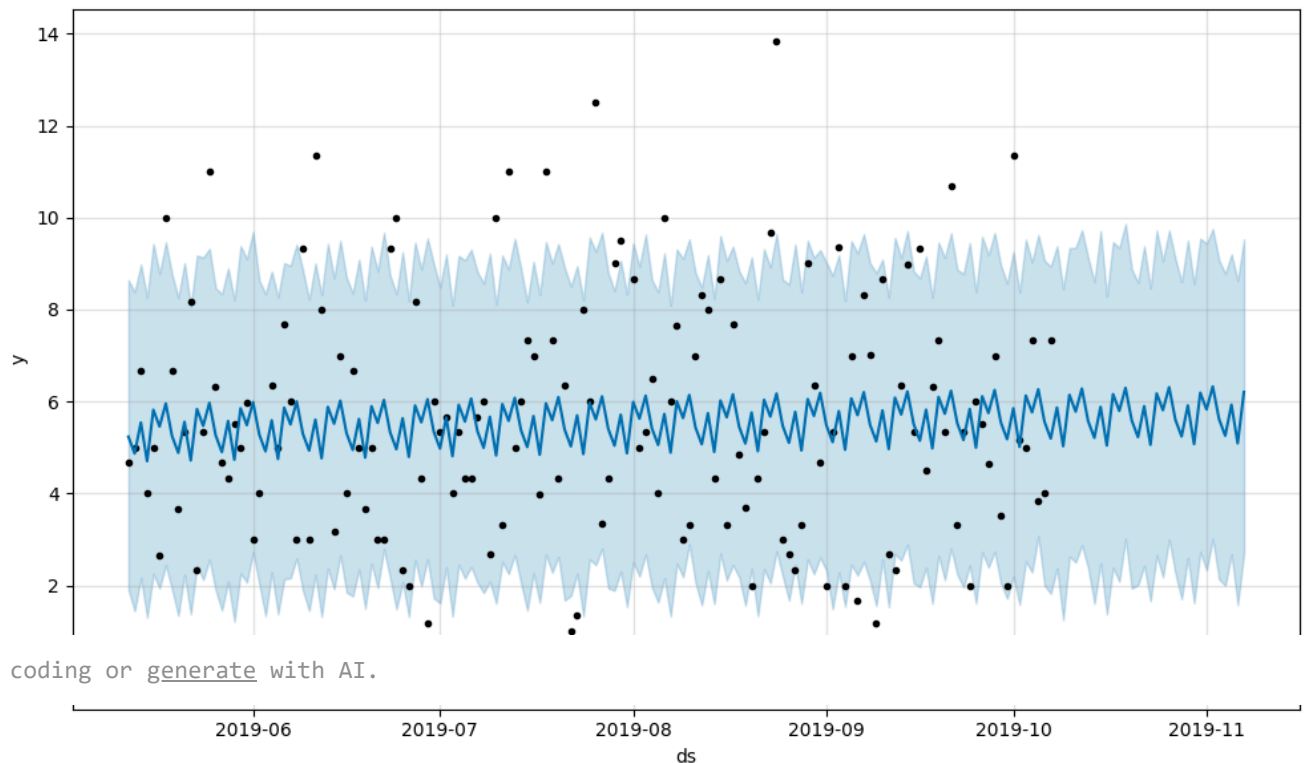
<ipython-input-7-aa0c01574da0>:3: SettingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame

See the caveats in the documentation: https://pandas.pydata.org/pandas-docs/stable/user_guide/in
  ts_data_edit.rename(columns= {'Date':'ds','M01AB':'y'},inplace= True)
INFO:prophet:Disabling yearly seasonality. Run prophet with yearly_seasonality=True to override
INFO:prophet:Disabling daily seasonality. Run prophet with daily_seasonality=True to override th
DEBUG:cmdstanpy:input tempfile: /tmp/tmpdwbqj7lm/b0zz132t.json
DEBUG:cmdstanpy:input tempfile: /tmp/tmpdwbqj7lm/cdfhj84u.json
DEBUG:cmdstanpy:idx 0
DEBUG:cmdstanpy:running CmdStan, num_threads: None
DEBUG:cmdstanpy:CmdStan args: ['/usr/local/lib/python3.11/dist-packages/prophet/stan_model/proph
11:34:12 - cmdstanpy - INFO - Chain [1] start processing
INFO:cmdstanpy:Chain [1] start processing
11:34:12 - cmdstanpy - INFO - Chain [1] done processing
INFO:cmdstanpy:Chain [1] done processing

Start coding or generate with AI.