

= ChatGPT



```
import pandas as pd
import matplotlib.pyplot as plt
from reportlab.platypus import
SimpleDocTemplate, Paragraph, Spacer,
Image
from reportlab.lib.styles import import
getSampleStyleSheet

# -----
# DEMO DATA
# -----
data = {
    "datetime":
pd.date_range("2025-10-01",
periods=10, freq="6H"),
    "temperature": [22, 24, 21, 19,
18, 20, 23, 25, 26, 24],
    "humidity": [60, 62, 65, 70, 68,
66, 64, 61, 59, 60],
    "wind_speed": [3, 4, 2, 5, 6, 3,
4, 3, 5, 4]
}
df = pd.DataFrame(data)
df.to_csv("demo_weather_forecast.csv",
index=False)

# -----
# PLOTS
# -----
plt.figure(figsize=(10,5))
plt.plot(df["datetime"],
df["temperature"], marker="o")
plt.xticks(rotation=45)
plt.title("Demo Temperature Forecast")
plt.xlabel("Date")
plt.ylabel("Temperature (°C)")
plt.tight_layout()
```



Ask anything



ChatGPT



```
plt.savefig("demo_temp_forecast.png")
plt.close()
```

```
plt.figure(figsize=(8,5))
plt.hist(df["temperature"], bins=5,
edgecolor="black")
plt.title("Demo Temperature
Distribution")
plt.xlabel("Temperature (°C)")
plt.ylabel("Frequency")
plt.savefig("demo_temp_hist.png")
plt.close()
```

```
# -----
# PDF REPORT
# -----
doc =
SimpleDocTemplate("demo_weather_rep
.pdf")
styles = getSampleStyleSheet()
story = []
```

```
story.append(Paragraph("Demo Weather
Forecast Report", styles['Title']))
story.append(Spacer(1, 12))
story.append(Paragraph("Generated
using sample data", styles['Normal']))
story.append(Spacer(1, 12))
```

```
story.append(Paragraph("Temperature
Forecast:", styles['Heading2']))
story.append(Image("demo_temp_forecast
.png", width=400, height=200))
story.append(Spacer(1, 12))
```

```
story.append(Paragraph("Temperature
Distribution:", styles['Heading2']))
```



Ask anything

