

## now Part 2 - Data Utility

Build a Python CSV Plotter.

Requirements:

Script should load any CSV file.

Let the user choose two columns (X and Y axes).

Allow user to select chart type: line chart or bar graph.

Display the plot using matplotlib.

And give me whole code here

## ChatGpt-

**Perfect 👍 Let's build Part 2: CSV Plotter step by step.**  
**This will be a Python script that:**

1. Loads a CSV file.
2. Lets the user choose two columns (X and Y).
3. Lets the user choose chart type (line or bar).
4. Plots the data using matplotlib.

## csv\_plotter.py

```
import pandas as pd
```

```
import matplotlib.pyplot as plt
```

```
def main():
```

```
    print("=== CSV Plotter Utility ===")
```

```
    # 1. Load CSV file
```

```
    file_path = input("Enter the path to your CSV file: ").strip()
```

```
    try:
```

```

    df = pd.read_csv(file_path)
except Exception as e:
    print(f"Error loading file: {e}")
    return

# Show available columns
print("\nAvailable columns:")
for i, col in enumerate(df.columns):
    print(f"{i+1}. {col}")

# 2. User chooses X and Y axes
try:
    x_col = input("\nEnter column name for X-axis: ").strip()
    y_col = input("Enter column name for Y-axis: ").strip()

    if x_col not in df.columns or y_col not in df.columns:
        print("Invalid column names. Please try again.")
        return
except Exception as e:
    print(f"Error: {e}")
    return

# 3. Choose chart type
chart_type = input("\nChoose chart type (line/bar): ").strip().lower()
if chart_type not in ["line", "bar"]:

```

```

print("Invalid chart type. Defaulting to line chart.")

chart_type = "line"

# 4. Plot data

plt.figure(figsize=(8, 6))

if chart_type == "line":
    plt.plot(df[x_col], df[y_col], marker="o", linestyle="-", color="blue")
elif chart_type == "bar":
    plt.bar(df[x_col], df[y_col], color="green")

plt.title(f"{chart_type.capitalize()} Chart of {y_col} vs {x_col}")
plt.xlabel(x_col)
plt.ylabel(y_col)
plt.xticks(rotation=45)
plt.tight_layout()
plt.show()

if __name__ == "__main__":
    main()

```

## Requirements

Add this to requirements.txt:

pandas

matplotlib

## How to Run

# Install dependencies

pip install pandas matplotlib

# Run the script

python csv\_plotter.py

# Example interaction:

# Enter the path to your CSV file: data.csv

# Available columns: ...

# Enter column name for X-axis: Year

# Enter column name for Y-axis: Sales

# Choose chart type (line/bar): line