

```
In [2]: import pandas as pd

# Sample data
data = {
    "Month": ["Jan", "Feb", "Mar", "Apr", "May", "Jun"],
    "Sales": [10000, 12000, 15000, 13000, 17000, 16000],
    "Profit": [2000, 3000, 4000, 2500, 3500, 3000]
}

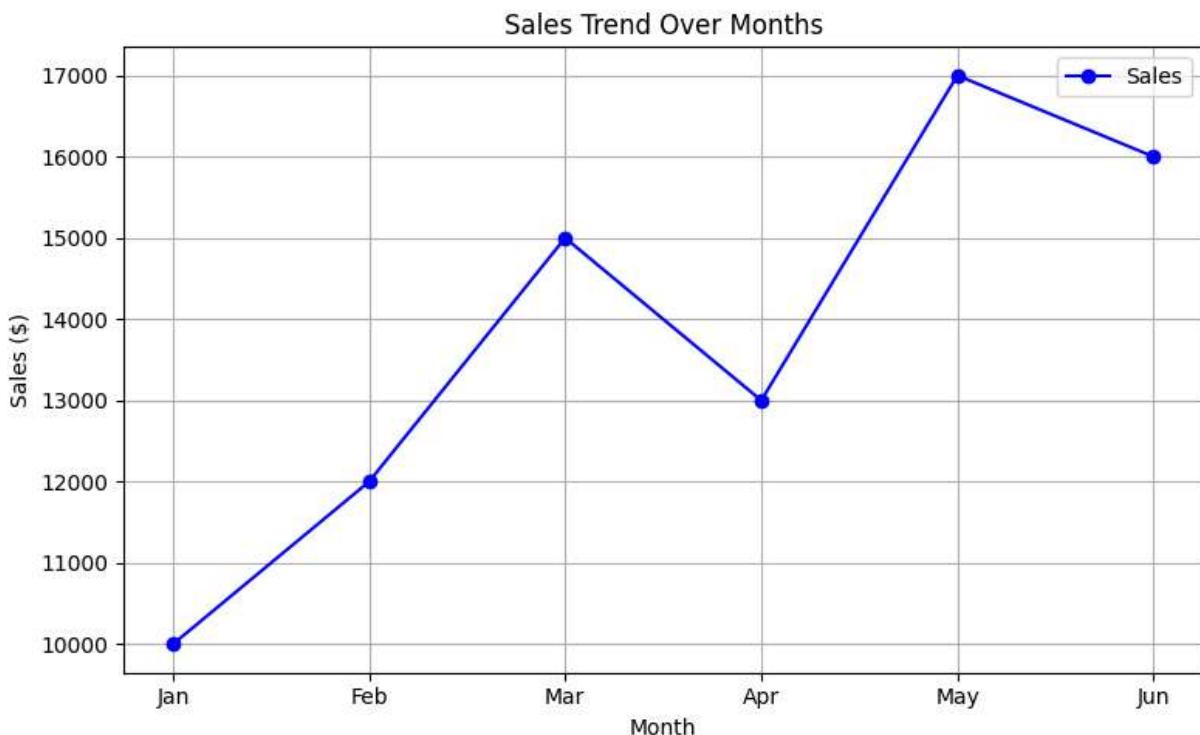
df = pd.DataFrame(data)
```

```
In [3]: # 1 -Line plot sales over time

import matplotlib.pyplot as plt

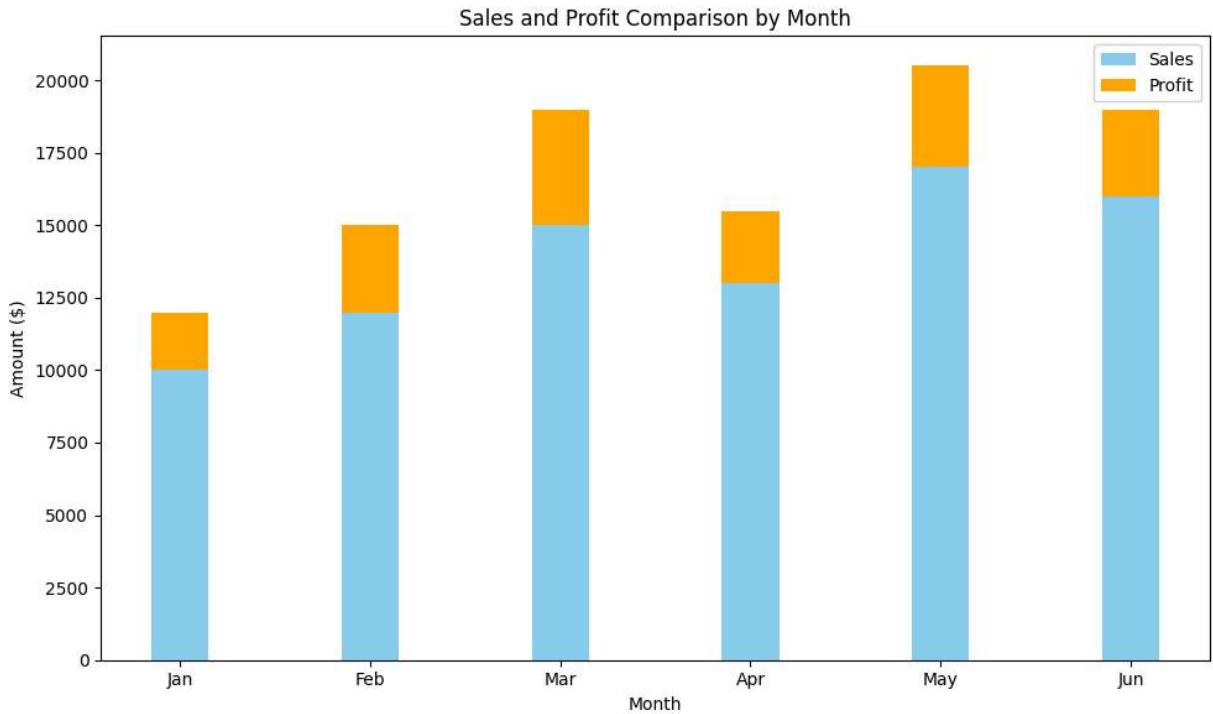
#Line Plot: Sales over Time
plt.figure(figsize=(8,5))
plt.plot(df['Month'], df['Sales'], color='blue', marker='o', linestyle='-', label='Sales')
plt.title('Sales Trend Over Months')
plt.xlabel('Month')
plt.ylabel('Sales ($)')
plt.grid(True)
plt.legend()
plt.tight_layout()
plt.show()

# Output: A Line plot showing the sales trend over the months.
```



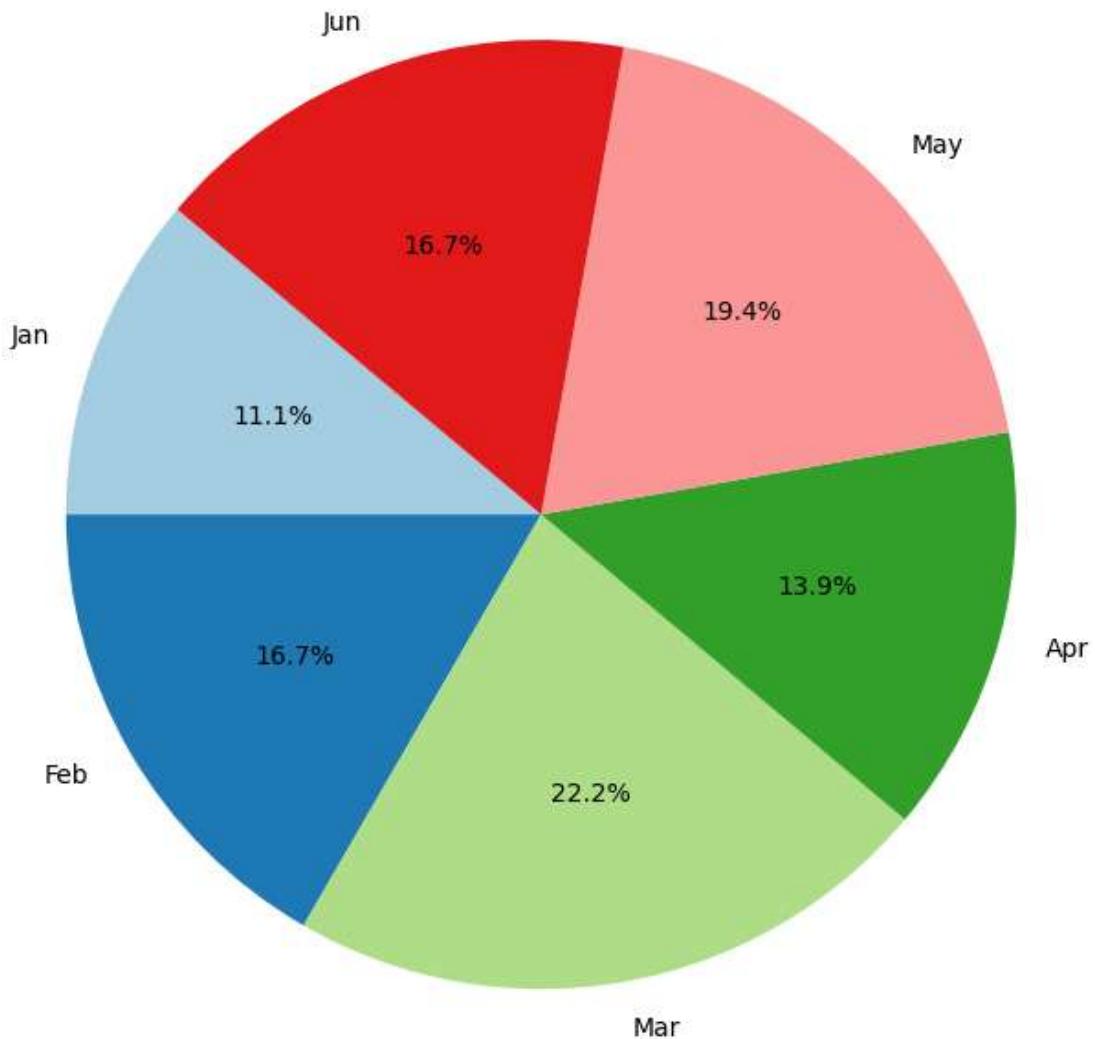
```
In [4]: #Bar plot: Sales vs Profit by Month
plt.figure(figsize=(10,6))
width=0.3
```

```
plt.bar(df['Month'],df['Sales'],width=width, label='Sales',color='skyblue')
plt.bar(df['Month'],df['Profit'],width=width, label='Profit',color='orange',bottom=
plt.title('Sales and Profit Comparison by Month')
plt.xlabel('Month')
plt.ylabel('Amount ($)')
plt.legend()
plt.tight_layout()
plt.show()
# A stacked bar plot where you can compare Sales and Profit for each month.
```

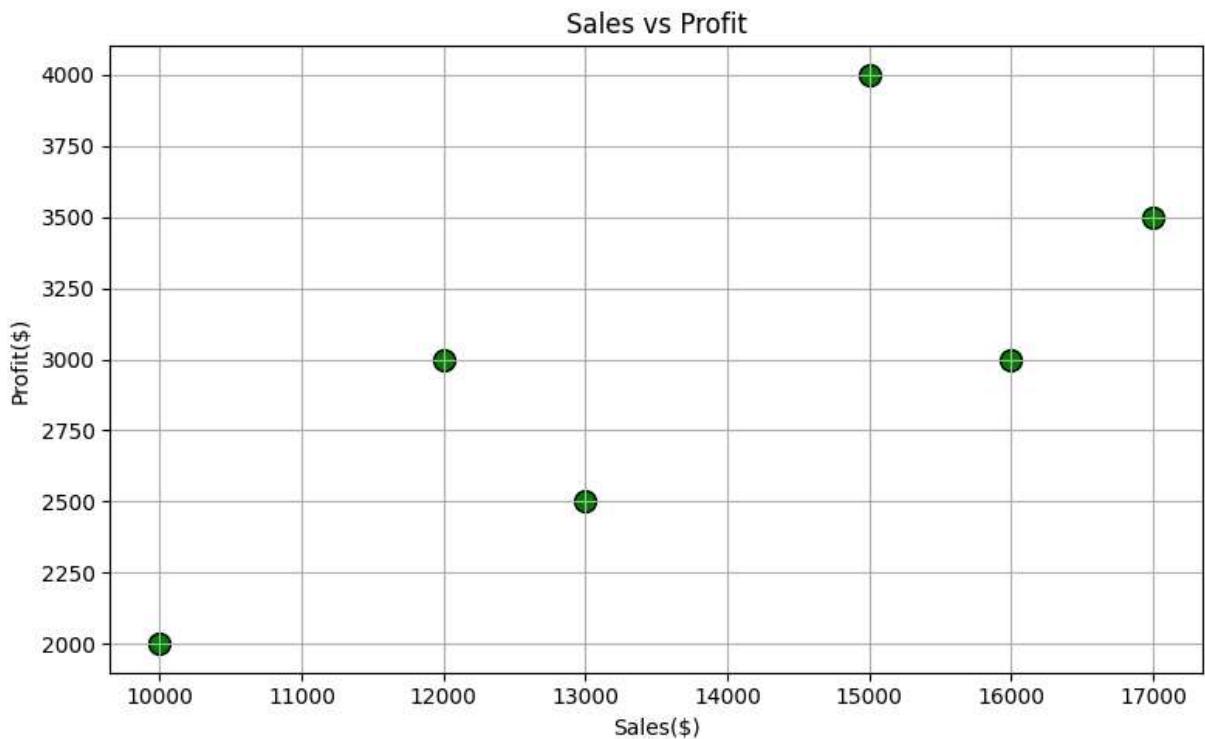


```
In [6]: # Pie Chart: Profit Distribution by Month
plt.figure(figsize=(7,7))
plt.pie(df['Profit'], labels=df['Month'], autopct='%1.1f%%', startangle=140, colors=
plt.title('Profit Distribution by Month')
plt.tight_layout()
plt.show()
# A pie chart displaying the proportion of profit distribution for each month.
```

### Profit Distribution by Month

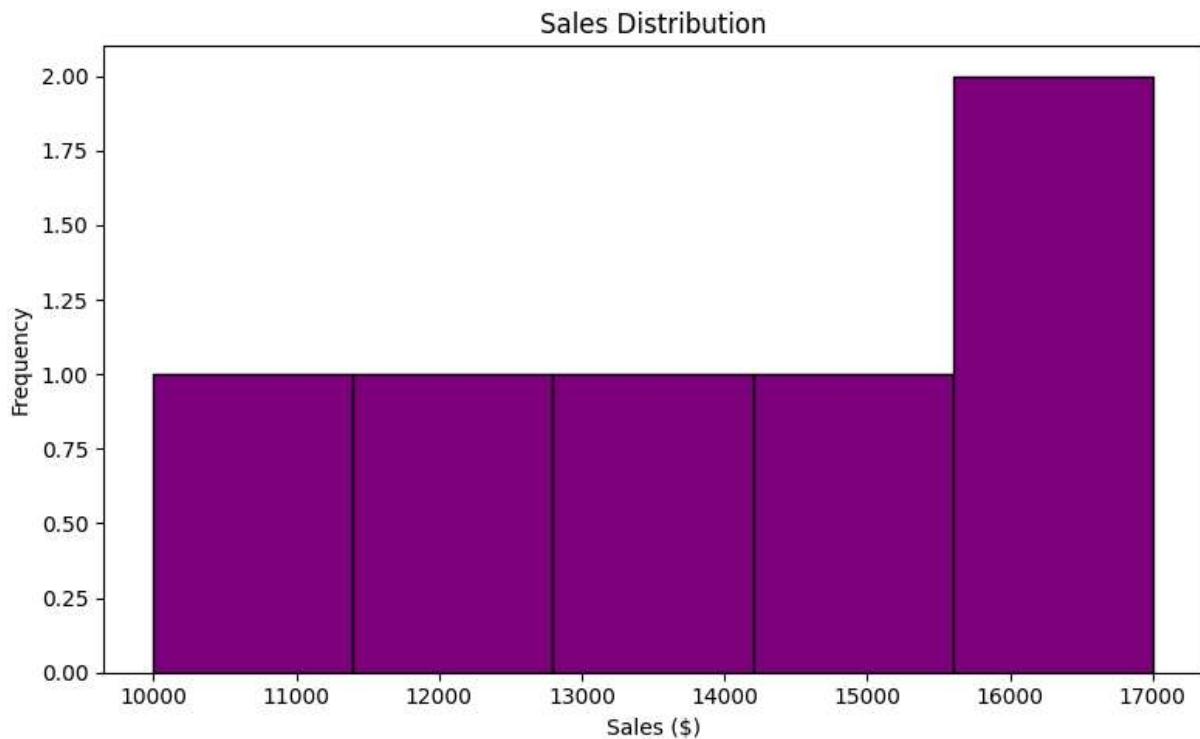


```
In [8]: # Scatter Plot: Sales vs Profit(Correlation)
plt.figure(figsize=(8, 5))
plt.scatter(df['Sales'], df['Profit'], color='green', s=100, edgecolors='black')
plt.title('Sales vs Profit')
plt.xlabel('Sales($)')
plt.ylabel('Profit($)')
plt.grid(True)
plt.tight_layout()
plt.show()
# A scatter plot showing the correlation between Sales and Profit
```

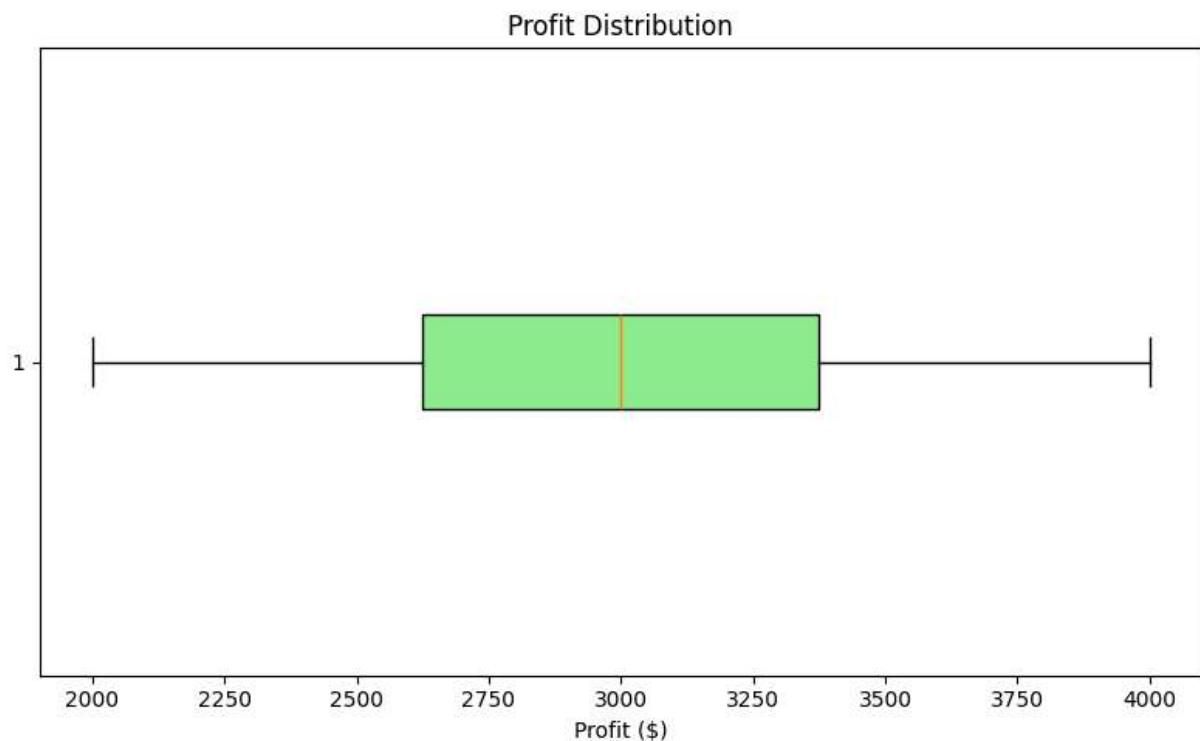


```
In [9]: # Histogram: Distribution of Sales
plt.figure(figsize=(8,5))
plt.hist(df['Sales'], bins=5, color='purple', edgecolor='black')
plt.title('Sales Distribution')
plt.xlabel('Sales ($)')
plt.ylabel('Frequency')
plt.tight_layout()
plt.show()

# A histogram showing the distribution of Sales values across months.
```



```
In [11]: # BoxPlot:Profit Distribution
plt.figure(figsize=(8, 5))
plt.boxplot(df['Profit'], vert=False, patch_artist=True, boxprops=dict(facecolor="lightgreen"))
plt.title('Profit Distribution')
plt.xlabel('Profit ($)')
plt.tight_layout()
plt.show()
# A box plot showing the spread and outliers of Profit.
```



```
In [12]: !pip install gradio
```

```
Collecting gradio
  Downloading gradio-5.36.2-py3-none-any.whl.metadata (16 kB)
Collecting aiofiles<25.0,>=22.0 (from gradio)
  Downloading aiofiles-24.1.0-py3-none-any.whl.metadata (10 kB)
Requirement already satisfied: anyio<5.0,>=3.0 in c:\users\dell\conda\envs\py312env\lib\site-packages (from gradio) (4.9.0)
Collecting brotli>=1.1.0 (from gradio)
  Downloading Brotli-1.1.0-cp312-cp312-win_amd64.whl.metadata (5.6 kB)
Collecting fastapi<1.0,>=0.115.2 (from gradio)
  Downloading fastapi-0.116.1-py3-none-any.whl.metadata (28 kB)
Collecting ffmpeg (from gradio)
  Downloading ffmpeg-0.6.0-py3-none-any.whl.metadata (2.9 kB)
Collecting gradio-client==1.10.4 (from gradio)
  Downloading gradio_client-1.10.4-py3-none-any.whl.metadata (7.1 kB)
Collecting groovy~=0.1 (from gradio)
  Downloading groovy-0.1.2-py3-none-any.whl.metadata (6.1 kB)
Requirement already satisfied: httpx<1.0,>=0.24.1 in c:\users\dell\conda\envs\py312env\lib\site-packages (from gradio) (0.28.1)
Collecting huggingface-hub>=0.28.1 (from gradio)
  Downloading huggingface_hub-0.33.4-py3-none-any.whl.metadata (14 kB)
Requirement already satisfied: jinja2<4.0 in c:\users\dell\conda\envs\py312env\lib\site-packages (from gradio) (3.1.6)
Requirement already satisfied: markupsafe<4.0,>=2.0 in c:\users\dell\conda\envs\py312env\lib\site-packages (from gradio) (3.0.2)
Requirement already satisfied: numpy<3.0,>=1.0 in c:\users\dell\conda\envs\py312env\lib\site-packages (from gradio) (2.2.6)
Collecting orjson~=3.0 (from gradio)
  Downloading orjson-3.10.18-cp312-cp312-win_amd64.whl.metadata (43 kB)
Requirement already satisfied: packaging in c:\users\dell\conda\envs\py312env\lib\site-packages (from gradio) (25.0)
Requirement already satisfied: pandas<3.0,>=1.0 in c:\users\dell\conda\envs\py312env\lib\site-packages (from gradio) (2.3.1)
Requirement already satisfied: pillow<12.0,>=8.0 in c:\users\dell\conda\envs\py312env\lib\site-packages (from gradio) (11.3.0)
Collecting pydantic<2.12,>=2.0 (from gradio)
  Downloading pydantic-2.11.7-py3-none-any.whl.metadata (67 kB)
Collecting pydub (from gradio)
  Downloading pydub-0.25.1-py2.py3-none-any.whl.metadata (1.4 kB)
Collecting python-multipart>=0.0.18 (from gradio)
  Downloading python_multipart-0.0.20-py3-none-any.whl.metadata (1.8 kB)
Requirement already satisfied: pyyaml<7.0,>=5.0 in c:\users\dell\conda\envs\py312env\lib\site-packages (from gradio) (6.0.2)
Collecting ruff>=0.9.3 (from gradio)
  Downloading ruff-0.12.3-py3-none-win_amd64.whl.metadata (26 kB)
Collecting safehttpx<0.2.0,>=0.1.6 (from gradio)
  Downloading safehttpx-0.1.6-py3-none-any.whl.metadata (4.2 kB)
Collecting semantic-version~=2.0 (from gradio)
  Downloading semantic_version-2.10.0-py2.py3-none-any.whl.metadata (9.7 kB)
Collecting starlette<1.0,>=0.40.0 (from gradio)
  Downloading starlette-0.47.1-py3-none-any.whl.metadata (6.2 kB)
Collecting tomlkit<0.14.0,>=0.12.0 (from gradio)
  Downloading tomlkit-0.13.3-py3-none-any.whl.metadata (2.8 kB)
Collecting typer<1.0,>=0.12 (from gradio)
  Downloading typer-0.16.0-py3-none-any.whl.metadata (15 kB)
Requirement already satisfied: typing-extensions~=4.0 in c:\users\dell\conda\envs\py312env\lib\site-packages (from gradio) (4.14.1)
```

```
Collecting uvicorn>=0.14.0 (from gradio)
  Downloading uvicorn-0.35.0-py3-none-any.whl.metadata (6.5 kB)
Collecting fsspec (from gradio-client==1.10.4->gradio)
  Downloading fsspec-2025.5.1-py3-none-any.whl.metadata (11 kB)
Collecting websockets<16.0,>=10.0 (from gradio-client==1.10.4->gradio)
  Downloading websockets-15.0.1-cp312-cp312-win_amd64.whl.metadata (7.0 kB)
Requirement already satisfied: idna>=2.8 in c:\users\dell\.conda\envs\py312env\lib\site-packages (from anyio<5.0,>=3.0->gradio) (3.10)
Requirement already satisfied: sniffio>=1.1 in c:\users\dell\.conda\envs\py312env\lib\site-packages (from anyio<5.0,>=3.0->gradio) (1.3.1)
Requirement already satisfied: certifi in c:\users\dell\.conda\envs\py312env\lib\site-packages (from httpx<1.0,>=0.24.1->gradio) (2025.7.9)
Requirement already satisfied: httpcore==1.* in c:\users\dell\.conda\envs\py312env\lib\site-packages (from httpx<1.0,>=0.24.1->gradio) (1.0.9)
Requirement already satisfied: h11>=0.16 in c:\users\dell\.conda\envs\py312env\lib\site-packages (from httpcore==1.*->httpx<1.0,>=0.24.1->gradio) (0.16.0)
Requirement already satisfied: python-dateutil>=2.8.2 in c:\users\dell\.conda\envs\py312env\lib\site-packages (from pandas<3.0,>=1.0->gradio) (2.9.0.post0)
Requirement already satisfied: pytz>=2020.1 in c:\users\dell\.conda\envs\py312env\lib\site-packages (from pandas<3.0,>=1.0->gradio) (2025.2)
Requirement already satisfied: tzdata>=2022.7 in c:\users\dell\.conda\envs\py312env\lib\site-packages (from pandas<3.0,>=1.0->gradio) (2025.2)
Collecting annotated-types>=0.6.0 (from pydantic<2.12,>=2.0->gradio)
  Downloading annotated_types-0.7.0-py3-none-any.whl.metadata (15 kB)
Collecting pydantic-core==2.33.2 (from pydantic<2.12,>=2.0->gradio)
  Downloading pydantic_core-2.33.2-cp312-cp312-win_amd64.whl.metadata (6.9 kB)
Collecting typing-inspection>=0.4.0 (from pydantic<2.12,>=2.0->gradio)
  Downloading typing_inspection-0.4.1-py3-none-any.whl.metadata (2.6 kB)
Collecting click>=8.0.0 (from typer<1.0,>=0.12->gradio)
  Using cached click-8.2.1-py3-none-any.whl.metadata (2.5 kB)
Collecting shellingham>=1.3.0 (from typer<1.0,>=0.12->gradio)
  Downloading shellingham-1.5.4-py2.py3-none-any.whl.metadata (3.5 kB)
Collecting rich>=10.11.0 (from typer<1.0,>=0.12->gradio)
  Downloading rich-14.0.0-py3-none-any.whl.metadata (18 kB)
Requirement already satisfied: colorama in c:\users\dell\.conda\envs\py312env\lib\site-packages (from click>=8.0.0->typer<1.0,>=0.12->gradio) (0.4.6)
Collecting filelock (from huggingface-hub>=0.28.1->gradio)
  Downloading filelock-3.18.0-py3-none-any.whl.metadata (2.9 kB)
Requirement already satisfied: requests in c:\users\dell\.conda\envs\py312env\lib\site-packages (from huggingface-hub>=0.28.1->gradio) (2.32.4)
Collecting tqdm>=4.42.1 (from huggingface-hub>=0.28.1->gradio)
  Downloading tqdm-4.67.1-py3-none-any.whl.metadata (57 kB)
Requirement already satisfied: six>=1.5 in c:\users\dell\.conda\envs\py312env\lib\site-packages (from python-dateutil>=2.8.2->pandas<3.0,>=1.0->gradio) (1.17.0)
Collecting markdown-it-py>=2.2.0 (from rich>=10.11.0->typer<1.0,>=0.12->gradio)
  Downloading markdown_it_py-3.0.0-py3-none-any.whl.metadata (6.9 kB)
Requirement already satisfied: pygments<3.0.0,>=2.13.0 in c:\users\dell\.conda\envs\py312env\lib\site-packages (from rich>=10.11.0->typer<1.0,>=0.12->gradio) (2.19.2)
Collecting mdurl~0.1 (from markdown-it-py>=2.2.0->rich>=10.11.0->typer<1.0,>=0.12->gradio)
  Downloading mdurl-0.1.2-py3-none-any.whl.metadata (1.6 kB)
Requirement already satisfied: charset_normalizer<4,>=2 in c:\users\dell\.conda\envs\py312env\lib\site-packages (from requests->huggingface-hub>=0.28.1->gradio) (3.4.2)
Requirement already satisfied: urllib3<3,>=1.21.1 in c:\users\dell\.conda\envs\py312env\lib\site-packages (from requests->huggingface-hub>=0.28.1->gradio) (2.5.0)
Downloading gradio-5.36.2-py3-none-any.whl (59.6 MB)
```

```
----- 0.0/59.6 MB ? eta -:-:--  
----- 1.0/59.6 MB 5.6 MB/s eta 0:00:11  
----- 2.4/59.6 MB 5.6 MB/s eta 0:00:11  
----- 3.7/59.6 MB 6.1 MB/s eta 0:00:10  
----- 5.0/59.6 MB 6.0 MB/s eta 0:00:10  
----- 6.3/59.6 MB 5.8 MB/s eta 0:00:10  
----- 7.1/59.6 MB 5.5 MB/s eta 0:00:10  
----- 7.6/59.6 MB 5.1 MB/s eta 0:00:11  
----- 8.7/59.6 MB 5.1 MB/s eta 0:00:11  
----- 10.0/59.6 MB 5.2 MB/s eta 0:00:10  
----- 10.5/59.6 MB 4.9 MB/s eta 0:00:10  
----- 11.8/59.6 MB 5.0 MB/s eta 0:00:10  
----- 12.6/59.6 MB 5.1 MB/s eta 0:00:10  
----- 13.9/59.6 MB 5.0 MB/s eta 0:00:10  
----- 14.9/59.6 MB 5.0 MB/s eta 0:00:09  
----- 15.7/59.6 MB 4.9 MB/s eta 0:00:10  
----- 16.3/59.6 MB 4.9 MB/s eta 0:00:09  
----- 17.6/59.6 MB 4.8 MB/s eta 0:00:09  
----- 18.6/59.6 MB 4.8 MB/s eta 0:00:09  
----- 19.7/59.6 MB 4.8 MB/s eta 0:00:09  
----- 19.9/59.6 MB 4.6 MB/s eta 0:00:09  
----- 21.2/59.6 MB 4.7 MB/s eta 0:00:09  
----- 22.3/59.6 MB 4.7 MB/s eta 0:00:08  
----- 23.1/59.6 MB 4.7 MB/s eta 0:00:08  
----- 24.4/59.6 MB 4.7 MB/s eta 0:00:08  
----- 25.7/59.6 MB 4.8 MB/s eta 0:00:08  
----- 27.0/59.6 MB 4.8 MB/s eta 0:00:07  
----- 27.8/59.6 MB 4.8 MB/s eta 0:00:07  
----- 29.4/59.6 MB 4.9 MB/s eta 0:00:07  
----- 30.4/59.6 MB 4.9 MB/s eta 0:00:06  
----- 31.2/59.6 MB 4.8 MB/s eta 0:00:06  
----- 32.5/59.6 MB 4.9 MB/s eta 0:00:06  
----- 33.6/59.6 MB 4.9 MB/s eta 0:00:06  
----- 34.1/59.6 MB 4.8 MB/s eta 0:00:06  
----- 34.6/59.6 MB 4.7 MB/s eta 0:00:06  
----- 35.4/59.6 MB 4.7 MB/s eta 0:00:06  
----- 36.4/59.6 MB 4.7 MB/s eta 0:00:05  
----- 37.7/59.6 MB 4.7 MB/s eta 0:00:05  
----- 38.5/59.6 MB 4.8 MB/s eta 0:00:05  
----- 39.1/59.6 MB 4.6 MB/s eta 0:00:05  
----- 40.1/59.6 MB 4.7 MB/s eta 0:00:05  
----- 41.4/59.6 MB 4.7 MB/s eta 0:00:04  
----- 41.9/59.6 MB 4.6 MB/s eta 0:00:04  
----- 42.5/59.6 MB 4.6 MB/s eta 0:00:04  
----- 43.5/59.6 MB 4.6 MB/s eta 0:00:04  
----- 44.6/59.6 MB 4.6 MB/s eta 0:00:04  
----- 45.6/59.6 MB 4.6 MB/s eta 0:00:04  
----- 46.9/59.6 MB 4.6 MB/s eta 0:00:03  
----- 48.0/59.6 MB 4.7 MB/s eta 0:00:03  
----- 48.8/59.6 MB 4.6 MB/s eta 0:00:03  
----- 49.5/59.6 MB 4.6 MB/s eta 0:00:03  
----- 50.1/59.6 MB 4.6 MB/s eta 0:00:03  
----- 51.1/59.6 MB 4.6 MB/s eta 0:00:02  
----- 52.2/59.6 MB 4.6 MB/s eta 0:00:02  
----- 53.0/59.6 MB 4.6 MB/s eta 0:00:02  
----- 53.7/59.6 MB 4.5 MB/s eta 0:00:02
```

```
----- 54.5/59.6 MB 4.5 MB/s eta 0:00:02
----- 55.6/59.6 MB 4.5 MB/s eta 0:00:01
----- 56.4/59.6 MB 4.5 MB/s eta 0:00:01
----- 57.1/59.6 MB 4.5 MB/s eta 0:00:01
----- 58.5/59.6 MB 4.5 MB/s eta 0:00:01
----- 59.5/59.6 MB 4.5 MB/s eta 0:00:01
----- 59.6/59.6 MB 4.5 MB/s eta 0:00:00

Downloading gradio_client-1.10.4-py3-none-any.whl (323 kB)
Downloading aiofiles-24.1.0-py3-none-any.whl (15 kB)
Downloading fastapi-0.116.1-py3-none-any.whl (95 kB)
Downloading groovy-0.1.2-py3-none-any.whl (14 kB)
Downloading orjson-3.10.18-cp312-cp312-win_amd64.whl (134 kB)
Downloading pydantic-2.11.7-py3-none-any.whl (444 kB)
Downloading pydantic_core-2.33.2-cp312-cp312-win_amd64.whl (2.0 MB)
----- 0.0/2.0 MB ? eta -:--:-
----- 0.8/2.0 MB 4.8 MB/s eta 0:00:01
----- 1.3/2.0 MB 3.5 MB/s eta 0:00:01
----- 2.0/2.0 MB 3.4 MB/s eta 0:00:00

Downloading safehttpx-0.1.6-py3-none-any.whl (8.7 kB)
Downloading semantic_version-2.10.0-py2.py3-none-any.whl (15 kB)
Downloading starlette-0.47.1-py3-none-any.whl (72 kB)
Downloading tomlkit-0.13.3-py3-none-any.whl (38 kB)
Downloading typer-0.16.0-py3-none-any.whl (46 kB)
Downloading websockets-15.0.1-cp312-cp312-win_amd64.whl (176 kB)
Downloading annotated_types-0.7.0-py3-none-any.whl (13 kB)
Downloading Brotli-1.1.0-cp312-cp312-win_amd64.whl (357 kB)
Using cached click-8.2.1-py3-none-any.whl (102 kB)
Downloading huggingface_hub-0.33.4-py3-none-any.whl (515 kB)
Downloading fsspec-2025.5.1-py3-none-any.whl (199 kB)
Downloading python_multipart-0.0.20-py3-none-any.whl (24 kB)
Downloading rich-14.0.0-py3-none-any.whl (243 kB)
Downloading markdown_it_py-3.0.0-py3-none-any.whl (87 kB)
Downloading mdurl-0.1.2-py3-none-any.whl (10.0 kB)
Downloading ruff-0.12.3-py3-none-win_amd64.whl (11.7 MB)
----- 0.0/11.7 MB ? eta -:--:-
----- 1.3/11.7 MB 6.1 MB/s eta 0:00:02
----- 1.8/11.7 MB 5.3 MB/s eta 0:00:02
----- 2.4/11.7 MB 4.3 MB/s eta 0:00:03
----- 2.9/11.7 MB 3.4 MB/s eta 0:00:03
----- 3.4/11.7 MB 3.2 MB/s eta 0:00:03
----- 3.7/11.7 MB 3.2 MB/s eta 0:00:03
----- 4.5/11.7 MB 3.0 MB/s eta 0:00:03
----- 5.5/11.7 MB 3.2 MB/s eta 0:00:02
----- 6.6/11.7 MB 3.3 MB/s eta 0:00:02
----- 6.8/11.7 MB 3.2 MB/s eta 0:00:02
----- 7.6/11.7 MB 3.2 MB/s eta 0:00:02
----- 8.7/11.7 MB 3.3 MB/s eta 0:00:01
----- 10.2/11.7 MB 3.7 MB/s eta 0:00:01
----- 11.3/11.7 MB 3.7 MB/s eta 0:00:01
----- 11.7/11.7 MB 3.6 MB/s eta 0:00:00

Downloading shellingham-1.5.4-py2.py3-none-any.whl (9.8 kB)
Downloading tqdm-4.67.1-py3-none-any.whl (78 kB)
Downloading typing_inspection-0.4.1-py3-none-any.whl (14 kB)
Downloading uvicorn-0.35.0-py3-none-any.whl (66 kB)
Downloading ffmpegpy-0.6.0-py3-none-any.whl (5.5 kB)
Downloading filelock-3.18.0-py3-none-any.whl (16 kB)
```

Downloading pydub-0.25.1-py2.py3-none-any.whl (32 kB)  
Installing collected packages: pydub, brotli, websockets, typing-inspection, tqdm, tomkit, shellingham, semantic-version, ruff, python-multipart, pydantic-core, orjson, mdurl, groovy, fsspec, filelock, ffmpy, click, annotated-types, aiofiles, uvicorn, starlette, pydantic, markdown-it-py, huggingface-hub, safehttpx, rich, gradio-client, fastapi, typer, gradio

```
----- 0/31 [pydub]
----- 2/31 [websockets]
----- 4/31 [tqdm]
----- 4/31 [tqdm]
----- 4/31 [tqdm]
----- 4/31 [tqdm]
----- 5/31 [tomkit]
----- 6/31 [shellingham]
----- 8/31 [ruff]
----- 9/31 [python-multipart]
----- 10/31 [pydantic-core]
----- 12/31 [mdurl]
----- 14/31 [fsspec]
----- 15/31 [filelock]
----- 17/31 [click]
----- 17/31 [click]
----- 17/31 [click]
----- 19/31 [aiofiles]
----- 20/31 [uvicorn]
----- 20/31 [uvicorn]
----- 20/31 [uvicorn]
----- 20/31 [uvicorn]
----- 21/31 [starlette]
----- 21/31 [starlette]
----- 21/31 [starlette]
----- 21/31 [starlette]
----- 22/31 [pydantic]
```





```
----- - 30/31 [gradio]
----- - 31/31 [gradio]
```

Successfully installed aiofiles-24.1.0 annotated-types-0.7.0 brotli-1.1.0 click-8.2.1 fastapi-0.116.1 ffmpeg-0.6.0 filelock-3.18.0 fsspec-2025.5.1 gradio-5.36.2 gradio-client-1.10.4 groovy-0.1.2 huggingface-hub-0.33.4 markdown-it-py-3.0.0 mdurl-0.1.2 orjson-3.10.18 pydantic-2.11.7 pydantic-core-2.33.2 pydub-0.25.1 python-multipart-0.0.20 rich-14.0.0 ruff-0.12.3 safehttpx-0.1.6 semantic-version-2.10.0 shellingham-1.5.4 starlette-0.47.1 tomkit-0.13.3 tqdm-4.67.1 typer-0.16.0 typing-inspection-0.4.1 uvicorn-0.35.0 websockets-15.0.1

```
In [13]: import gradio as gr
import pandas as pd
import matplotlib.pyplot as plt

# Sample data
data = {
    "Month": ["Jan", "Feb", "Mar", "Apr", "May", "Jun"],
    "Sales": [10000, 12000, 15000, 13000, 17000, 16000],
    "Profit": [2000, 3000, 4000, 2500, 3500, 3000]
}
df = pd.DataFrame(data)

# Function to return selected plot
def generate_plot(plot_type):
    fig = plt.figure(figsize=(8, 5))

    if plot_type == "Line Plot":
        plt.plot(df['Month'], df['Sales'], color='blue', marker='o', label='Sales')
        plt.title('Sales Trend Over Months')
        plt.xlabel('Month')
        plt.ylabel('Sales ($)')
        plt.grid(True)
        plt.legend()

    elif plot_type == "Stacked Bar Chart":
        fig.set_size_inches(10, 6)
        width = 0.3
        plt.bar(df['Month'], df['Sales'], width=width, label='Sales', color='skyblue')
        plt.bar(df['Month'], df['Profit'], width=width, label='Profit', color='orange')
        plt.title('Sales and Profit Comparison by Month')
        plt.xlabel('Month')
        plt.ylabel('Amount ($)')
        plt.legend()

    elif plot_type == "Pie Chart":
        fig.set_size_inches(7, 7)
        plt.pie(df['Profit'], labels=df['Month'], autopct='%1.1f%%', startangle=140)
        plt.title('Profit Distribution by Month')

    elif plot_type == "Scatter Plot":
```

```
plt.scatter(df['Sales'], df['Profit'], color='green', s=100, edgecolors='black')
plt.title('Sales vs Profit')
plt.xlabel('Sales ($)')
plt.ylabel('Profit ($)')
plt.grid(True)

elif plot_type == "Histogram":
    plt.hist(df['Sales'], bins=5, color='purple', edgecolor='black')
    plt.title('Sales Distribution')
    plt.xlabel('Sales ($)')
    plt.ylabel('Frequency')

elif plot_type == "Box Plot":
    plt.boxplot(df['Profit'], vert=False, patch_artist=True, boxprops=dict(facecolor='red'))
    plt.title('Profit Distribution')
    plt.xlabel('Profit ($)')

plt.tight_layout()
return fig

# Gradio UI
demo = gr.Interface(
    fn=generate_plot,
    inputs=gr.Radio(
        ["Line Plot", "Stacked Bar Chart", "Pie Chart", "Scatter Plot", "Histogram"],
        label="Choose Plot Type"
    ),
    outputs=gr.Plot(label="Visualization"),
    title="Sales & Profit Visual Explorer",
    description="Choose a chart type to visualize the data."
)

demo.launch()
```

```
C:\Users\DELL\.conda\envs\py312env\Lib\site-packages\tqdm\auto.py:21: TqdmWarning: IPython progress not found. Please update jupyter and ipywidgets. See https://ipywidgets.readthedocs.io/en/stable/user_install.html
  from .autonotebook import tqdm as notebook_tqdm
* Running on local URL: http://127.0.0.1:7860
* To create a public link, set `share=True` in `launch()`.
```

# Sales & Profit Visual Explorer

Choose a chart type to visualize the data.

Choose Plot Type



Line Plot



Stacked Bar Chart



Pie Chart



Scatter Plot



Histogram



Box Plot

**Clear**

**Submit**

 Visualization



Out[13]:

In [ ]: