```
Start coding or generate with AI.
```

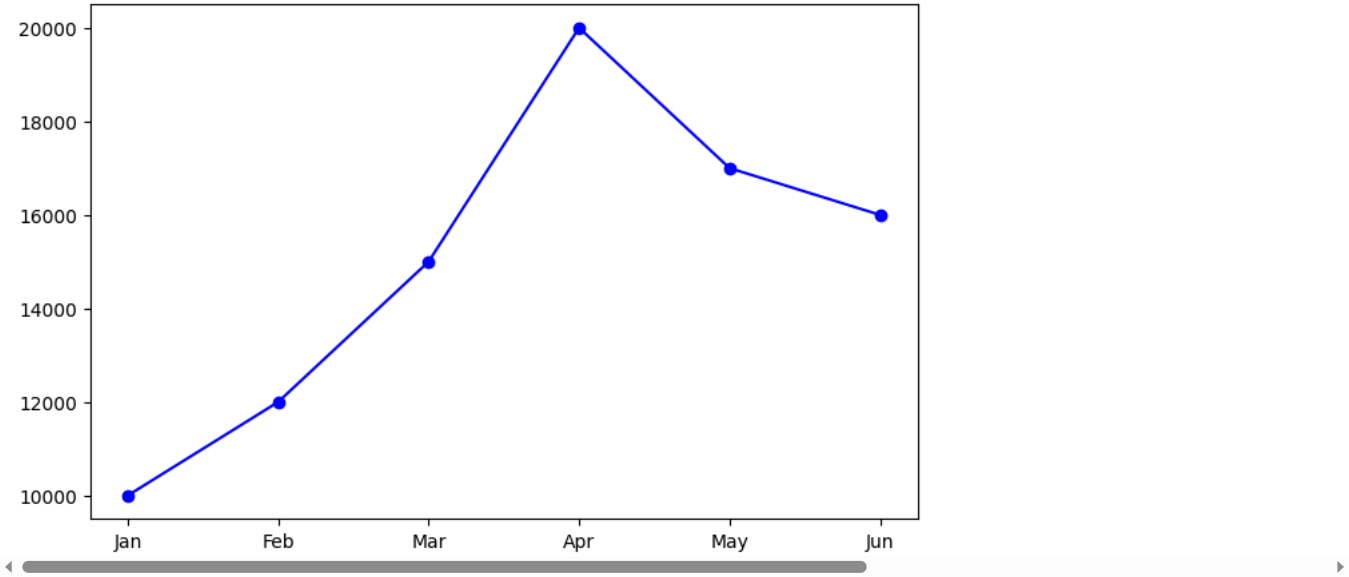
```
import pandas as pd
data={
    "Month":['Jan','Feb','Mar','Apr','May','Jun'],
    "Sales":[10000,12000,15000,20000,17000,16000],
    "Profit":[2000,1500,600,3000,3500,2500]
}
df = pd.DataFrame(data)
print(df)
```

```
  Month  Sales  Profit
0   Jan  10000    2000
1   Feb  12000    1500
2   Mar  15000     600
3   Apr  20000    3000
4   May  17000    3500
5   Jun  16000    2500
```

LINE PLOT MONTHLY SALES

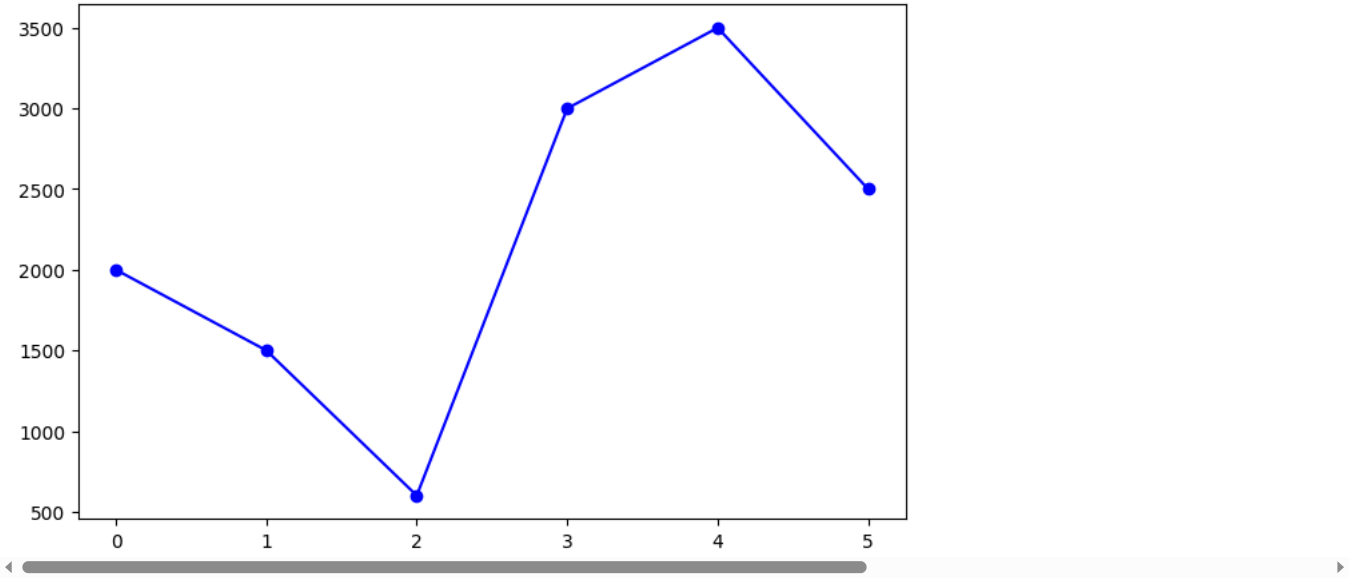
```
import matplotlib.pyplot as plt
plt.figure(figsize=(8,5))
plt.plot(df['Month'],df['Sales'],color='blue',marker='o',linestyle='-',label='sales')
```

```
[<matplotlib.lines.Line2D at 0x7eb1a472b210>]
```

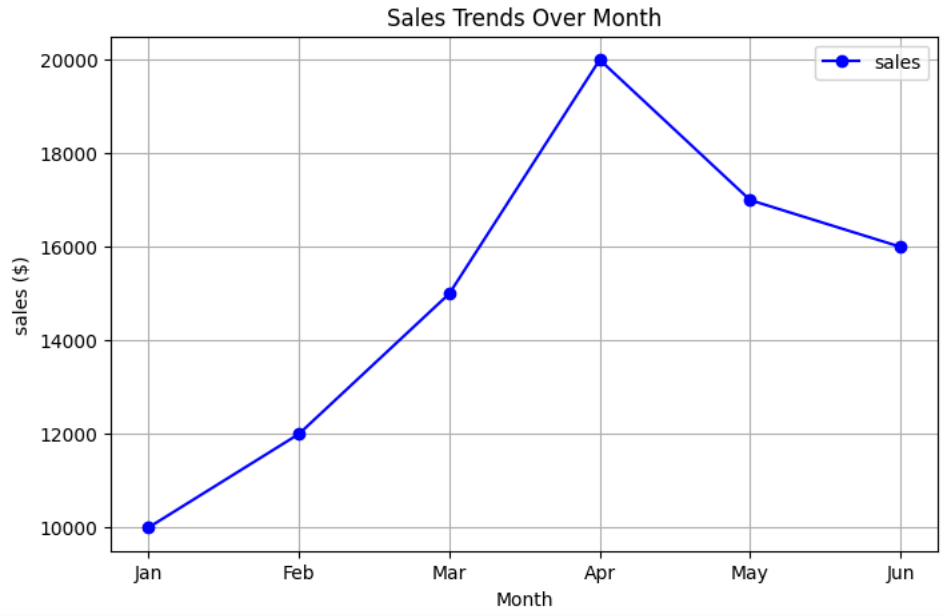



```
import matplotlib.pyplot as plt
plt.figure(figsize=(8,5))
plt.plot(df['Profit'],color='blue',marker='o',linestyle='-',label='sales')
```

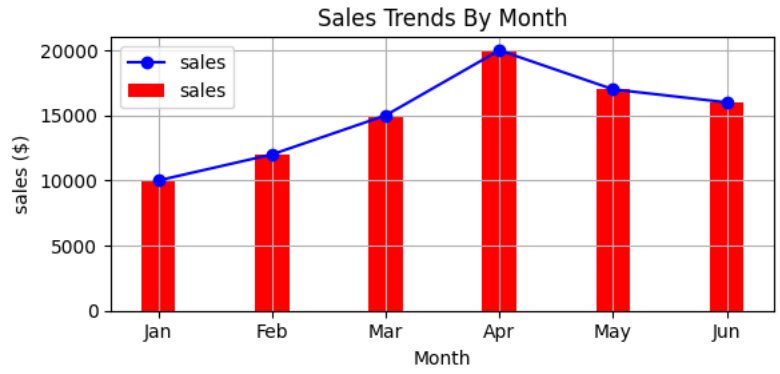
```
[<matplotlib.lines.Line2D at 0x7eb19bfa17d0>]
```



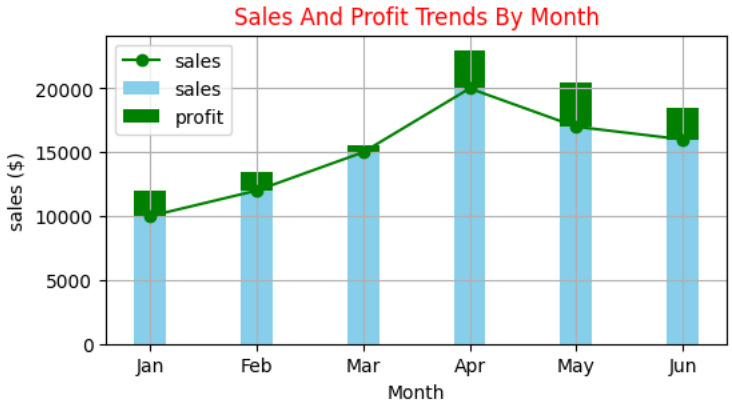
```
import matplotlib.pyplot as plt
plt.figure(figsize=(8,5))
plt.plot(df['Month'],df['Sales'],color='blue',marker='o',linestyle='-',label='sales')
plt.title('Sales Trends Over Month')
plt.xlabel('Month')
plt.ylabel('sales ($)')
plt.grid(True)
plt.legend()
plt.show()
```




```
import matplotlib.pyplot as plt
plt.figure(figsize=(6,3))
width=0.3
plt.bar(df['Month'],df['Sales'], width=width,color='red',label='sales')
plt.plot(df['Month'],df['Sales'],color='blue',marker='o',linestyle='-',label='sales')
plt.title('Sales Trends By Month')
plt.xlabel('Month')
plt.ylabel('sales ($)')
plt.grid(True)
plt.legend()
plt.tight_layout()
plt.show()
```



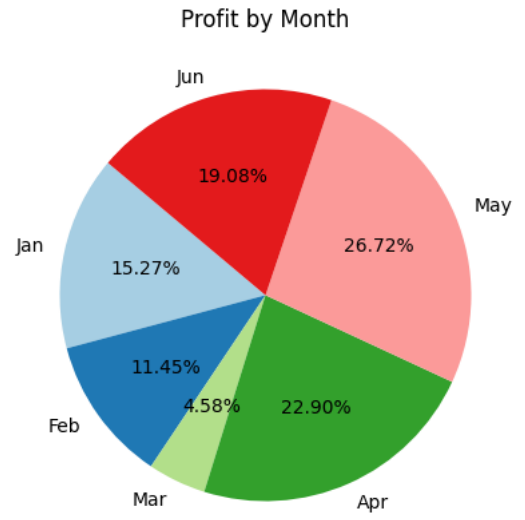

```
import matplotlib.pyplot as plt
plt.figure(figsize=(6,3))
width=0.3
plt.bar(df['Month'],df['Sales'], width=width,color='skyblue',label='sales')
plt.bar(df['Month'],df['Profit'], width=width,color='green',label='profit',bottom=df['Sales'])
plt.plot(df['Month'],df['Sales'],color='green',marker='o',linestyle='-',label='sales')
plt.title('Sales And Profit Trends By Month',color='red')
plt.xlabel('Month')
plt.ylabel('sales ($)')
plt.grid(True)
plt.legend()
plt.show()
```



PIE CHART PROFIT VS MONTH

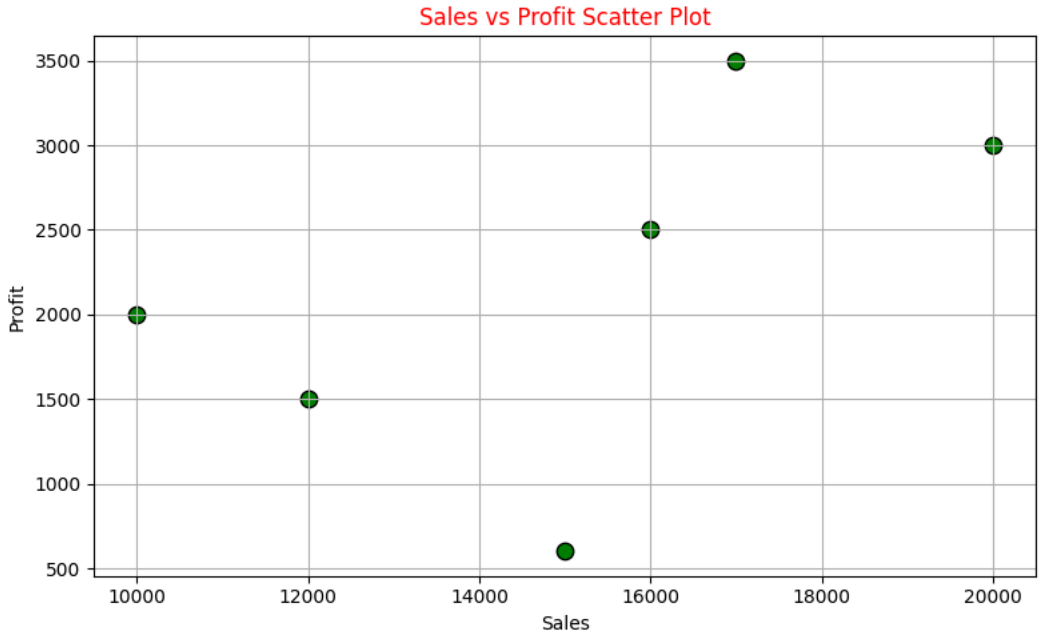
```
from enum import auto
plt.figure(figsize=(10,5))
plt.pie(df['Profit'],labels=df['Month'],autopct='%1.2f%%',startangle=140,colors=plt.cm.Paired.colors)
plt.title('Profit by Month')
```

```
Text(0.5, 1.0, 'Profit by Month')
```



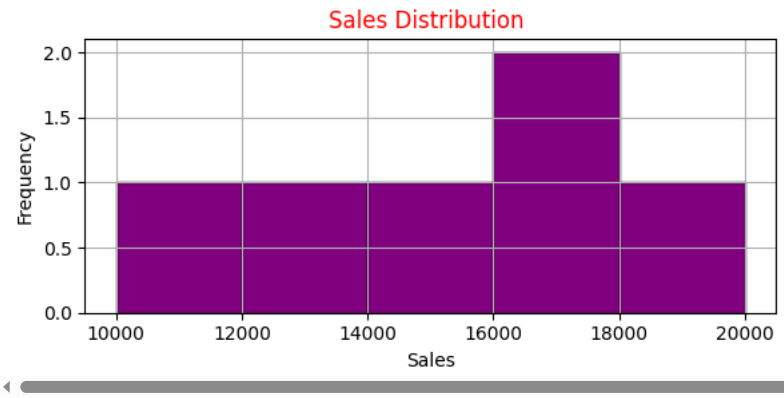
SCATTER **PLOT**

```
plt.figure(figsize=(8,5))
plt.scatter(df['Sales'],df['Profit'],color='green',s=80,edgecolors='black')
plt.title('Sales vs Profit Scatter Plot',color='red')
plt.xlabel('Sales')
plt.ylabel('Profit')
plt.grid(True)
plt.tight_layout()
plt.show()
```



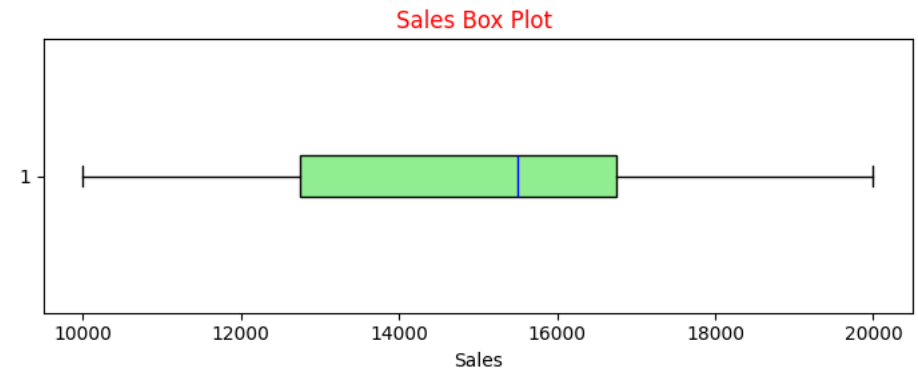
HISTOGRAM

```
plt.figure(figsize=(6,3))
plt.hist(df['Sales'],bins=5,color='purple',edgecolor='black')
plt.title('Sales Distribution ',color='red')
plt.xlabel('Sales')
plt.ylabel('Frequency')
plt.grid(True)
plt.tight_layout()
plt.show()
```

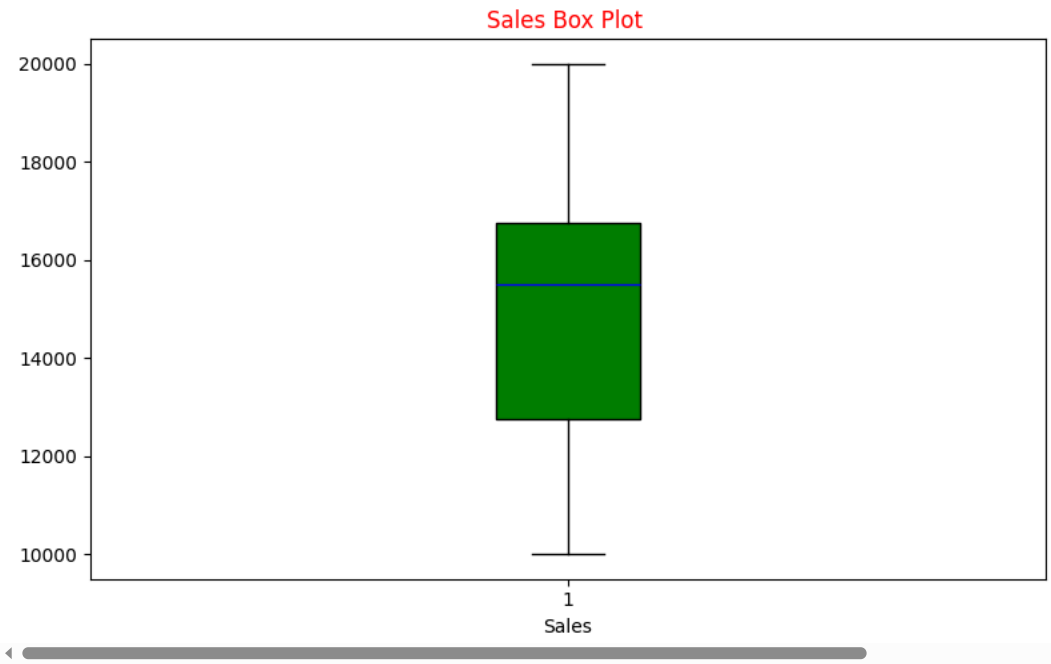


BOX PLOT

```
plt.figure(figsize=(7,3))
plt.boxplot(df['Sales'],vert=False,patch_artist=True,boxprops=dict(facecolor='lightgreen'),medianprops=dict(color='blue')),
plt.title('Sales Box Plot ',color='red')
plt.xlabel('Sales')
plt.tight_layout()
plt.show()
```




```
plt.figure(figsize=(8,5))
plt.boxplot(df['Sales'],patch_artist=True,boxprops=dict(facecolor='green'),medianprops=dict(color='blue'))
plt.title('Sales Box Plot ',color='red')
plt.xlabel('Sales')
#plt.grid(True)
plt.tight_layout()
plt.show()
```




```
!pip install gradio
```

```
Requirement already satisfied: markdown-it-py>=2.2.0 in /usr/local/lib/python3.11/dist-packages (from rich>=10.11.0->typer<1.0,>=0
Requirement already satisfied: pygments<3.0.0,>=2.13.0 in /usr/local/lib/python3.11/dist-packages (from rich>=10.11.0->typer<1.0,>
Requirement already satisfied: charset-normalizer<4,>=2 in /usr/local/lib/python3.11/dist-packages (from requests->huggingface-hub
Requirement already satisfied: urllib3<3,>=1.21.1 in /usr/local/lib/python3.11/dist-packages (from requests->huggingface-hub>=0.28
Requirement already satisfied: mdurl~=0.1 in /usr/local/lib/python3.11/dist-packages (from markdown-it-py>=2.2.0->rich>=10.11.0->t
Downloading gradio-5.29.0-py3-none-any.whl (54.1 MB)
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Downloading gradio_client-1.10.0-py3-none-any.whl (322 kB)
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Downloading aiofiles-24.1.0-py3-none-any.whl (15 kB)
Downloading fastapi-0.115.12-py3-none-any.whl (95 kB)
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Downloading groovy-0.1.2-py3-none-any.whl (14 kB)
Downloading python_multipart-0.0.20-py3-none-any.whl (24 kB)
Downloading ruff-0.11.9-py3-none-manylinux_2_17_x86_64.manylinux2014_x86_64.whl (11.5 MB)
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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-0.46.2-py3-none-any.whl (72 kB)
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Downloading tomlkit-0.13.2-py3-none-any.whl (37 kB)
Downloading uvicorn-0.34.2-py3-none-any.whl (62 kB)
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Downloading ffmpy-0.5.0-py3-none-any.whl (6.0 kB)
Downloading pydub-0.25.1-py2.py3-none-any.whl (32 kB)
Installing collected packages: pydub, uvicorn, tomlkit, semantic-version, ruff, python-multipart, groovy, ffmpy, aiofiles, starlet
Successfully installed aiofiles-24.1.0 fastapi-0.115.12 ffmpy-0.5.0 gradio-5.29.0 gradio-client-1.10.0 groovy-0.1.2 pydub-0.25.1 p
```

Start coding or generate with AI.

```
import gradio as gr
import pandas as pd
import matplotlib as plt
import matplotlib.pyplot as plt
data={
    "Month":['Jan','Feb','Mar','Apr','May','Jun'],
    "Sales":[10000,12000,15000,20000,17000,16000],
    "Profit":[2000,1500,600,3000,3500,2500]
}
df = pd.DataFrame(data)
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',linestyle='-',label='sales')
     plt.title('Sales Trends Over Month')
     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,color='skyblue',label='sales')
      plt.bar(df['Month'],df['Profit'], width=width,color='green',label='profit',bottom=df['Sales'])
      plt.plot(df['Month'],df['Sales'],color='green',marker='o',linestyle='-',label='sales')
      plt.title('Sales And Profit Trends By Month',color='red')
      plt.xlabel('Month')
```