

Data Reporting:

-----

Data Reporting means to visualize the data.

we can visualize the data by using matplotlib,seaborn,....

if we want to working with matplotlib,first we need to install matplotlib.

```
pip install matplotlib
```

ex1:

---

wap to draw the simple plot?

```
import matplotlib.pyplot as plt
x=[1,3,5,7]
y=[8,4,2,6]
plt.plot(x,y)
plt.show()
```

ex2:

---

```
import matplotlib.pyplot as plt
plt.plot([1,3,5,7],[8,4,2,6],color="red",label="first")
plt.plot([4,8,2,6],[7,3,5,1],label="second")
plt.xlabel("x-axis")
plt.ylabel("y-axis")
plt.title("Simple Plot Graph")
plt.legend()
plt.show()
```

ex3:

---

wap to draw the simple bar graph?

```
import matplotlib.pyplot as plt
plt.bar([1,3,5,7],[8,4,2,6],color="red",label="first")
plt.bar([4,8,2,6],[7,3,5,1],label="second")
plt.xlabel("x-axis")
plt.ylabel("y-axis")
plt.title("Simple Bar Graph")
plt.legend()
plt.show()
```

ex4:

---

wap to draw the simple scatter plot?

```
import matplotlib.pyplot as plt
plt.scatter([1,3,5,7],[8,4,2,6],color="red",label="first")
plt.scatter([4,8,2,6],[7,3,5,1],label="second",marker="*")
plt.xlabel("x-axis")
plt.ylabel("y-axis")
plt.title("Simple Scatter Graph")
plt.legend()
plt.show()
```

ex5:

---

wap to draw the simple Pie Chart?

```
import matplotlib.pyplot as plt
subjects=["Python","Django","Flask","MicroServices"]
marks=[67,76,23,38]
cols=["red","purple","blue","orange"]
plt.pie(marks,labels=subjects,colors=cols,shadow=True,
        explode=(0,0,0.1,0),startangle=90,autopct="%.2f%%")
plt.show()
```