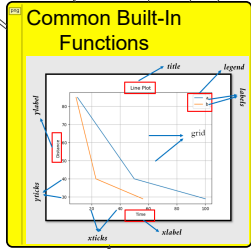


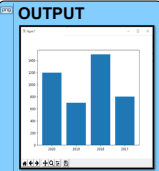
savefig(): To save the plot as .png or .pdf at the desired location
 title(): to write title for the plot
 legend(): to show legends
 show(): to view the plot
 grid(): To show gridlines
 xlabel(): to write label name for x-axis
 ylabel(): to write label name for y-axis
 xticks(): To set ticks for x axis
 yticks(): To set ticks for y axis



Common Built-In Functions
 Made by: Vineeta Garg

PY PLOT

```
EXAMPLE
import matplotlib.pyplot as plt
year=['2020','2019','2018','2017']
sales=[1200,700,1500,800]
plt.bar(year, sales)
plt.show()
```



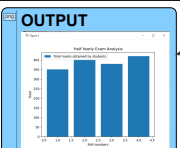
USING LISTS

SYNTAX: bar(x,y,label)

BAR PLOT

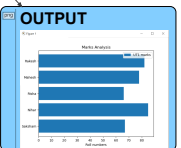
For horizontal bar plot:
barh(x,y,label)

```
EXAMPLE
import pandas as pd
df=pd.read_csv("C:/Desktop/testdata.csv")
df3=pd.DataFrame(df2)
print(df3)
df3.plot(x='Roll numbers', y='Total marks obtained by students')
plt.xlabel("Roll numbers")
plt.ylabel("Marks")
plt.legend()
plt.show()
```



USING DATAFRAMES

```
EXAMPLE
import pandas as pd
import matplotlib.pyplot as plt
df3=pd.read_csv("C:/Desktop/testdata.csv")
a=df3.Name
b=df3.Total
plt.barh(a,b, label="001 marks")
plt.title("Marks Analysis")
plt.xlabel("Roll numbers")
plt.ylabel("Marks")
plt.legend()
plt.show()
```

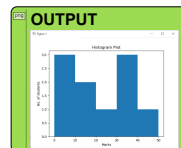


USING CSV FILES

HISTOGRAM

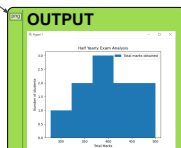
Syntax:
hist(data, bins)

USING LISTS



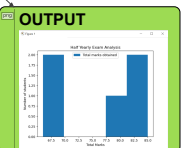
```
EXAMPLE
import matplotlib.pyplot as plt
import numpy as np
marks=[30,34,45,37,15,28,9,2,10,5]
bin=[0,10,20,30,40,50]
plt.hist(marks,bin)
plt.xlabel("Marks")
plt.ylabel("No. of students")
plt.title('Histogram Plot')
plt.show()
```

```
EXAMPLE
import pandas as pd
import matplotlib.pyplot as plt
df2=pd.DataFrame(df2)
df3=pd.DataFrame(df2)
b=df3.Total
plt.hist(b, bins=5, label="Total marks obtained")
plt.title("Half Yearly Exam Analysis")
plt.xlabel("Number of students")
plt.ylabel("Total Marks")
plt.legend()
plt.show()
```



USING DATAFRAMES

```
EXAMPLE
import pandas as pd
import matplotlib.pyplot as plt
df3=pd.read_csv("C:/Desktop/testdata.csv")
b=df3.Total
plt.hist(b, bins=5, label="Total marks obtained")
plt.title("Half Yearly Exam Analysis")
plt.xlabel("Number of students")
plt.ylabel("Total Marks")
plt.legend()
plt.show()
```

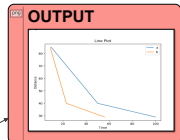


USING CSV FILES

LINE PLOT

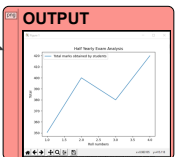
SYNTAX:
plot(x, y, label)

```
EXAMPLE
import matplotlib.pyplot as plt
x=[10,50,100]
y=[85,40,29]
xl=[9,23,56]
plt.plot(x,y, label="a")
plt.plot(xl,y, label="b")
plt.xlabel("Time")
plt.ylabel("Distance")
plt.title("Line Plot")
plt.legend()
plt.show()
```



USING LIST

```
EXAMPLE
import pandas as pd
df2=pd.Series([1,2,3,4], index=[1,2,3,4])
df3=pd.DataFrame(df2)
print(df3)
df3.plot(x='Roll numbers', y='Total marks obtained by students')
plt.title("Half Yearly Exam Analysis")
plt.xlabel("Roll numbers")
plt.ylabel("Total")
plt.legend()
plt.show()
```



USING DATAFRAME



```
EXAMPLE
import pandas as pd
import matplotlib.pyplot as plt
df3=pd.read_csv("C:/Desktop/testdata.csv")
a=df3.Name
b=df3.Total
plt.plot(a,b, label="001 marks")
plt.plot(a,c, label="002 marks")
plt.title("Marks Analysis")
plt.xlabel("Roll numbers")
plt.ylabel("Marks")
plt.legend()
plt.show()
```

USING CSV FILES