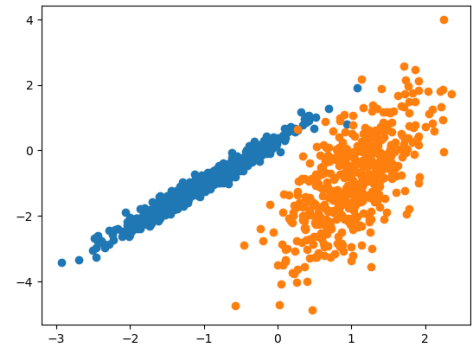# PRACTICAL-6

SCATTER PLOT

```
from numpy import where
from sklearn.datasets import
make_classification
from matplotlib import pyplot
x,y=make_classification(n_samples=1000,
    n_feat ures=2,n_informative=2,n_redundant=0,
    n_clusters_per_class=1,random_state=4)
for class_value in range(2):
row_ix=where(y==class_value)
pyplot.scatter(x[row_ix,0],x[row_ix,1])
pyplot.show()
```
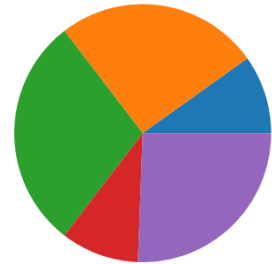

HISTOGRAM USING MATPLOTLIB

```
# importing matplotlib module
from matplotlib import pyplot as plt
# Y-axis values
y = [10, 5, 8, 4, 2]
# Function to plot histogram
plt.hist(y)
# Function to show the plot
plt.show()
```
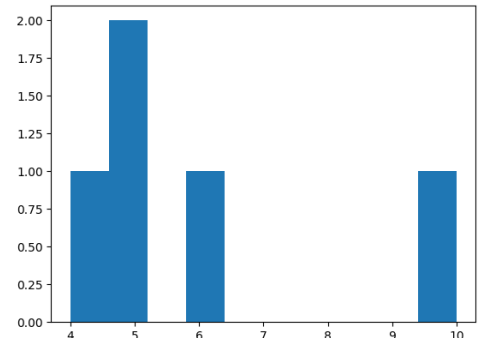

PIE CHARTS

```
import matplotlib.pyplot as plt
import numpy as np
y = np.array([35, 25, 25, 15])
plt.pie(y)
plt.show()
```


ADDING GRID LINES TO PLOT

```
import numpy as np
import matplotlib.pyplot as plt
x = np.array([80, 85, 90, 95, 100, 105, 110, 115, 120, 125])
y = np.array([240, 250, 260, 270, 280, 290, 300, 310, 320, 330])
plt.title("Sports Watch Data")
plt.xlabel("Average Pulse")
plt.ylabel("Calorie Burnage")
plt.plot(x, y)
plt.grid()
plt.show()
```
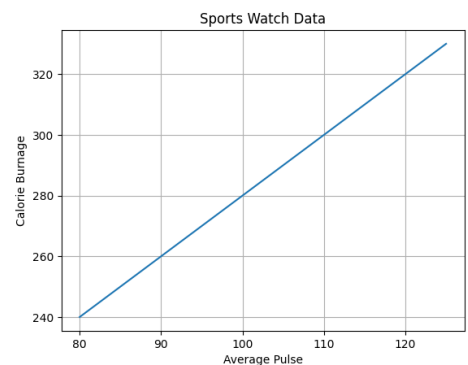

STAIRS(VALUES)

```
import matplotlib.pyplot as plt
import numpy as np
plt.style.use("_mpl-gallery")
# make data
y = [4.8,5.5,2.3,5.6,7.6,4.3,5.1,3.6]
# plot
fig, ax = plt.subplots()
ax.stairs(y, linewidth=2.5)
ax.set(xlim=(0,8), xticks=np.arange(1,8),
    ylim=(0,8), yticks=np.arange(1,8))
plt.show()
```