

```
In [1]: # import lib
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
```

```
In [4]: # Histogram
data1 = np.random.randint(18,27,(50))
data1
```

```
Out[4]: array([23, 20, 21, 22, 26, 25, 23, 22, 26, 21, 24, 18, 22, 25, 23, 22, 18,
              18, 18, 18, 26, 22, 18, 20, 21, 18, 21, 22, 24, 23, 25, 25, 21, 23,
              25, 21, 21, 22, 25, 25, 19, 25, 23, 19, 18, 24, 26, 18, 24, 21])
```

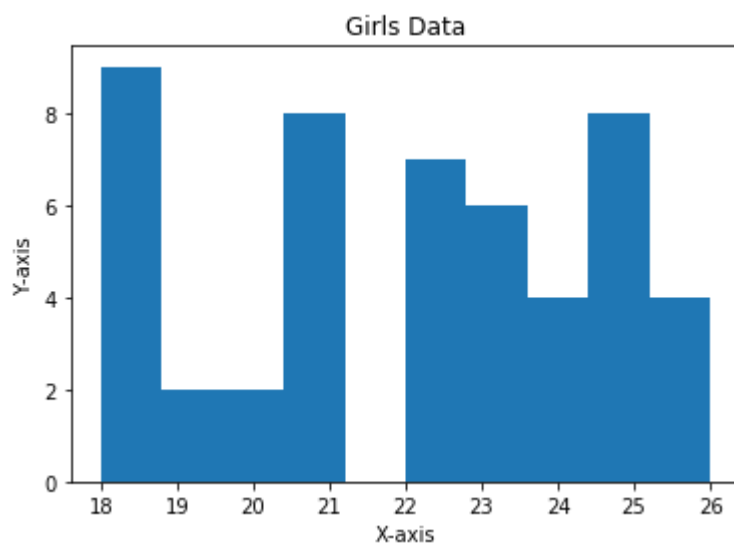
```
In [5]: data2 = np.random.randint(24,35,(50))
data2
```

```
Out[5]: array([25, 26, 30, 34, 34, 34, 34, 27, 27, 31, 33, 34, 32, 32, 31, 24, 24,
              34, 26, 27, 34, 32, 31, 33, 30, 26, 28, 33, 25, 26, 33, 31, 25, 26,
              27, 28, 26, 25, 24, 33, 30, 29, 29, 26, 26, 24, 31, 34, 30, 26])
```

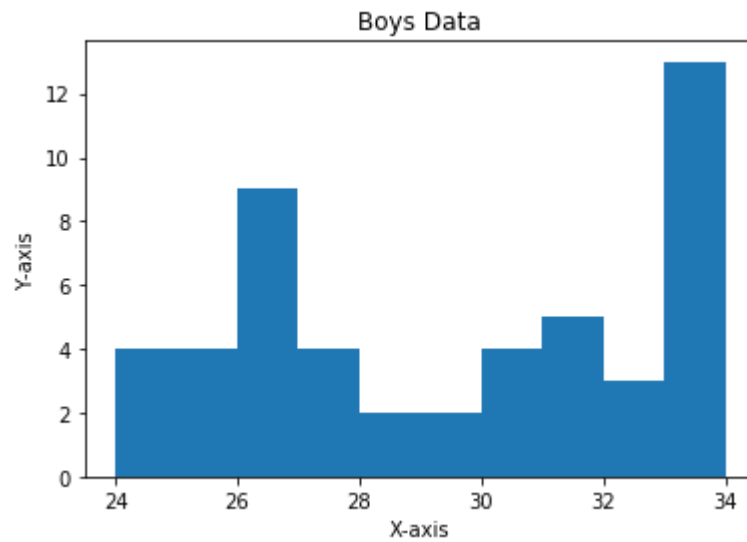
```
In [ ]:
```

```
In [ ]:
```

```
In [6]: # Data set-1
plt.hist(data1)
plt.title("Girls Data")
plt.xlabel('X-axis')
plt.ylabel('Y-axis')
plt.show()
```



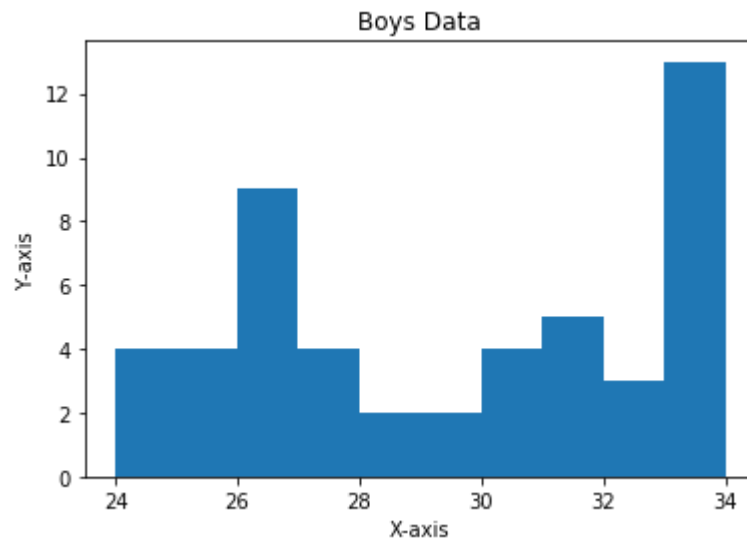
```
In [7]: # Data set-2
plt.hist(data2)
plt.title("Boys Data")
plt.xlabel('X-axis')
plt.ylabel('Y-axis')
plt.show()
```



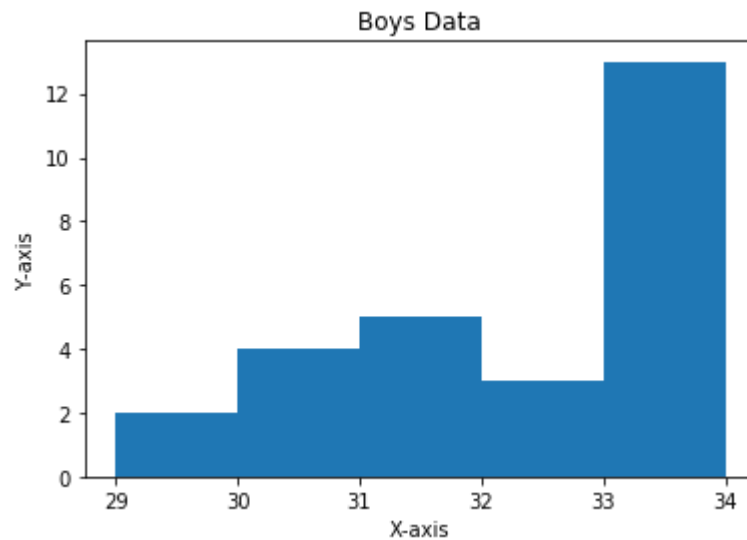
In [ ]:

In [ ]:

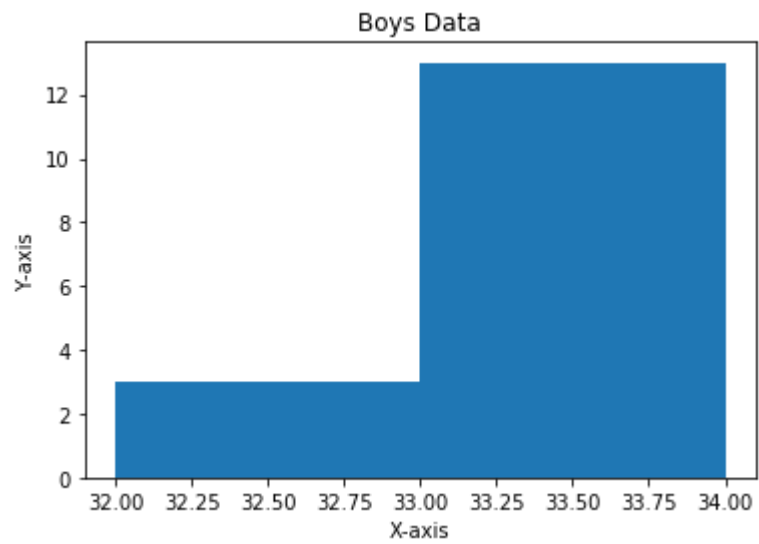
```
In [10]: # Data set-2
# graph data from age of 24 to 34
bins=[24,25,26,27,28,29,30,31,32,33,34]
plt.hist(data2,bins)
plt.title("Boys Data")
plt.xlabel('X-axis')
plt.ylabel('Y-axis')
plt.show()
```



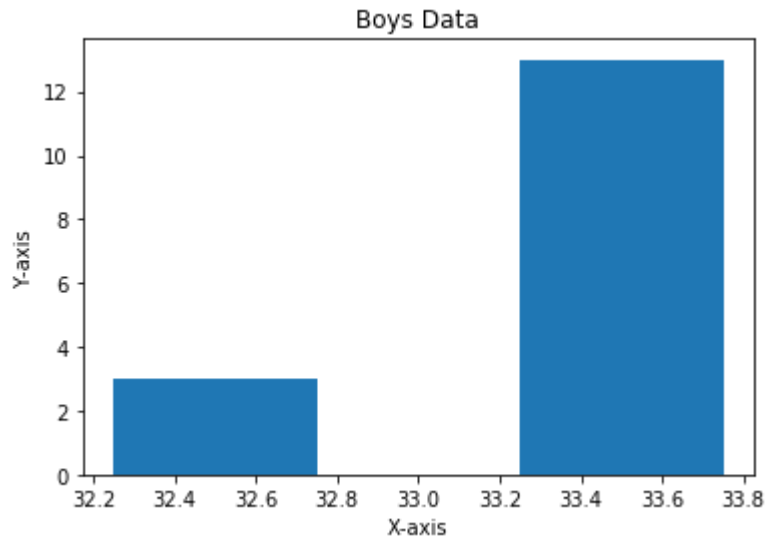
```
In [11]: # Data set-2
# graph data from age of 29 to 34
bins=[29,30,31,32,33,34]
plt.hist(data2,bins)
plt.title("Boys Data")
plt.xlabel('X-axis')
plt.ylabel('Y-axis')
plt.show()
```



```
In [12]: # Data set-2  
# graph data from age of 32 to 34  
bins=[32,33,34]  
plt.hist(data2,bins)  
plt.title("Boys Data")  
plt.xlabel('X-axis')  
plt.ylabel('Y-axis')  
plt.show()
```



```
In [13]: # Data set-2
# graph data from age of 32 to 34
bins=[32,33,34]
plt.hist(data2,bins,rwidth=0.5)
plt.title("Boys Data")
plt.xlabel('X-axis')
plt.ylabel('Y-axis')
plt.show()
```



In [ ]:

In [ ]:

```
In [15]: # Example -2
# Histogram
data1 = np.random.randint(18,45,(100))
data1
```

```
Out[15]: array([32, 24, 28, 24, 29, 42, 43, 41, 37, 18, 18, 40, 20, 37, 23, 20, 44,
 28, 43, 33, 22, 42, 39, 26, 29, 18, 44, 37, 33, 36, 24, 39, 38, 27,
 30, 42, 19, 33, 21, 35, 43, 35, 33, 41, 39, 21, 33, 22, 44, 38, 30,
 27, 36, 38, 20, 33, 31, 31, 20, 41, 37, 39, 39, 19, 36, 34, 44, 29,
 43, 31, 28, 33, 36, 38, 42, 19, 20, 24, 40, 21, 34, 23, 21, 20, 28,
 18, 19, 33, 23, 20, 40, 25, 21, 27, 31, 27, 42, 33, 28, 24])
```

```
In [16]: data2 = np.random.randint(16,45,(100))
data2
```

```
Out[16]: array([34, 42, 38, 26, 24, 35, 32, 18, 17, 25, 40, 24, 23, 27, 23, 43, 30,
 30, 25, 29, 44, 41, 35, 23, 33, 28, 43, 34, 30, 23, 24, 20, 30, 16,
 40, 26, 35, 40, 34, 26, 39, 27, 28, 17, 24, 41, 30, 39, 26, 17, 37,
 17, 31, 18, 28, 41, 27, 43, 31, 33, 42, 32, 16, 28, 41, 26, 43, 35,
 23, 42, 24, 27, 23, 31, 39, 21, 30, 44, 39, 24, 22, 22, 27, 26, 42,
 29, 27, 35, 29, 34, 18, 35, 38, 29, 21, 37, 24, 39, 25, 24])
```

In [ ]:

In [17]: `from matplotlib import style`

In [19]: `bins=[16,20,25,30,35,40,45]  
style.use('ggplot')  
plt.figure(figsize=(16,7))  
  
plt.hist([data1,data2],bins,rwidth=0.5,orientation="vertical",color=['r','b'])  
  
plt.title("Boys and Girls Data")  
plt.xlabel('X-axis')  
plt.ylabel('Y-axis')  
plt.show()`

