In [1]:
```
# import lin

import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
```

In [2]:
```
# bar(x,height,width,bottom,align)
```

In [3]:
```
city = ['Delhi','Hyd','Chand','Puna','Mumbai','Ambala','Secand']
```

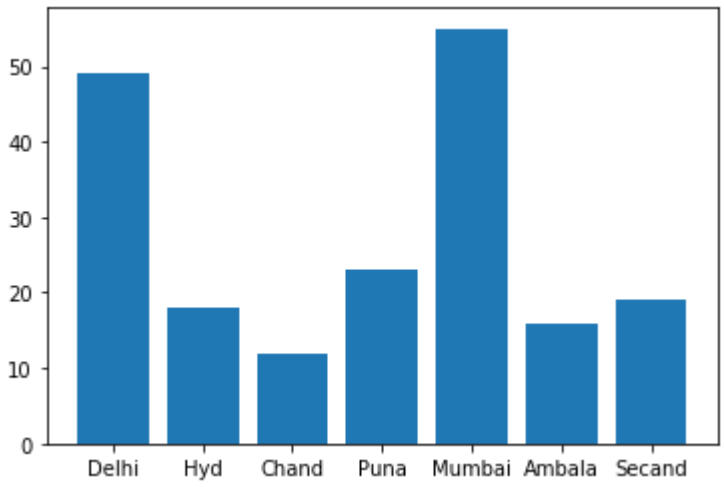
In [4]:
```
day1 = [49,18,12,23,55,16,19]
```

In [5]:
```
day2 = [59,28,22,33,65,26,29]
```

In [6]:
```
day3 = [69,38,32,43,75,36,42]
```

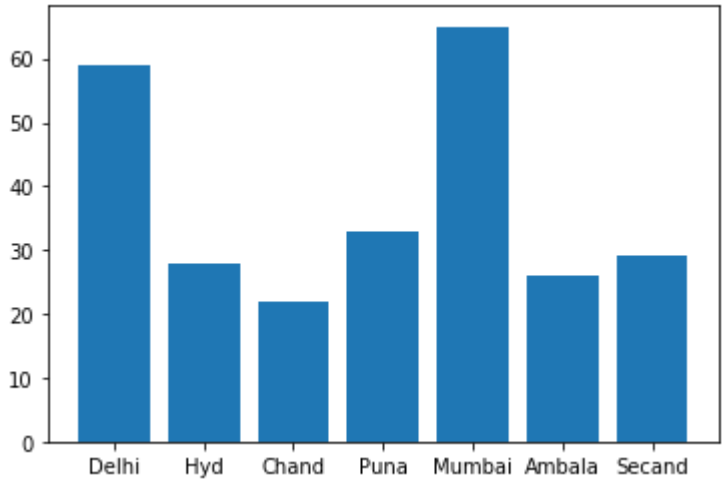
In [7]:
```
# bar

plt.bar(city,day1)
```

Out[7]:
```
<BarContainer object of 7 artists>
```



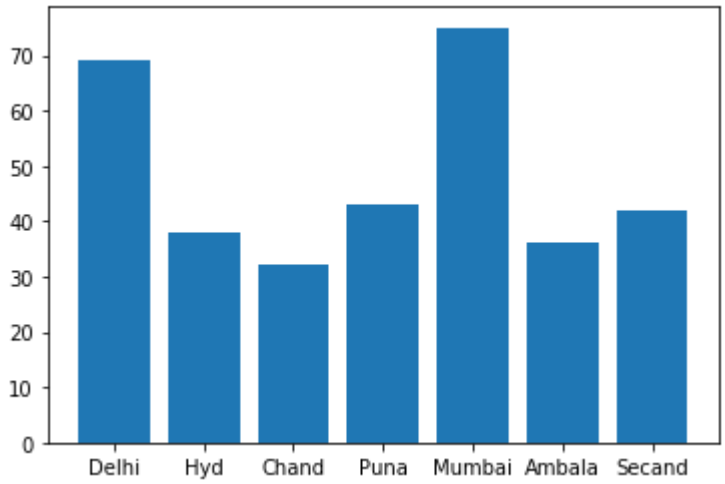
In [8]:
```
plt.bar(city,day2)
```

Out[8]: <BarContainer object of 7 artists>



In [9]:
```
plt.bar(city,day3)
```

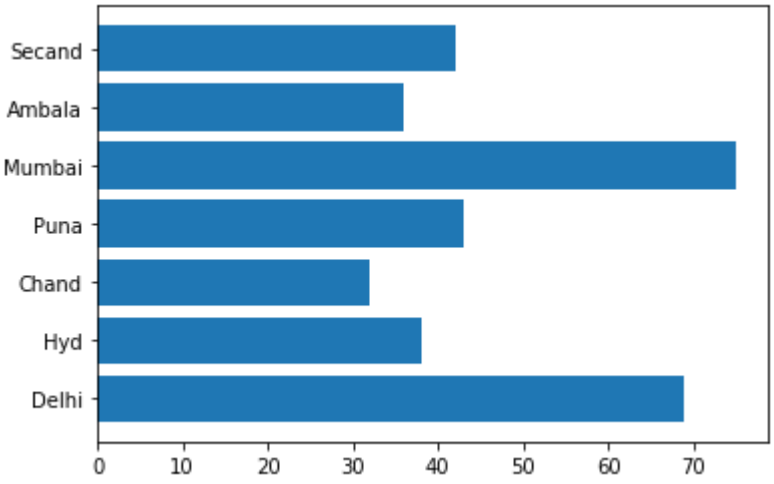
Out[9]: <BarContainer object of 7 artists>



In [ ]:

In [10]:
```
plt.barh(city,day3)
```

Out[10]: <BarContainer object of 7 artists>

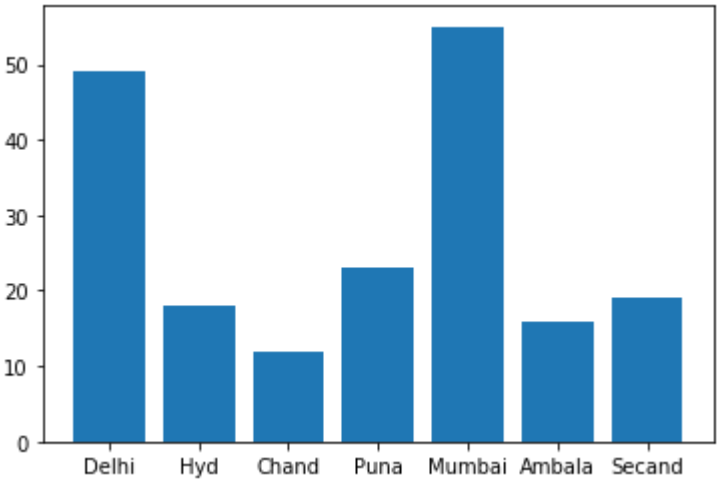


In [ ]:

In [ ]:

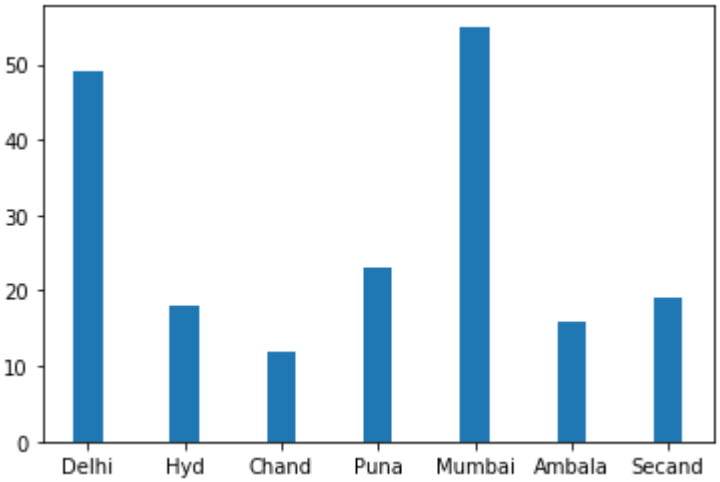
In [11]:
```
# bar

plt.bar(city,day1)
```

Out[11]: <BarContainer object of 7 artists>



In [12]:
```
plt.bar(city,day1,width=0.3)
```

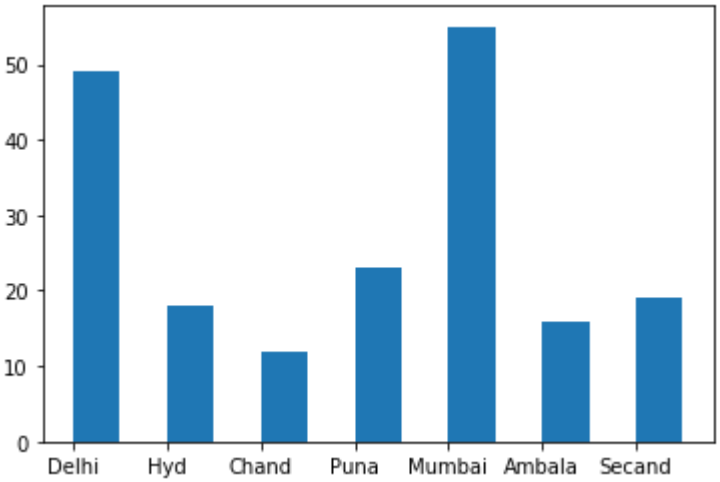
Out[12]: <BarContainer object of 7 artists>



In [ ]:

In [14]:
```
plt.bar(city,day1,width=0.5,align='edge')
```

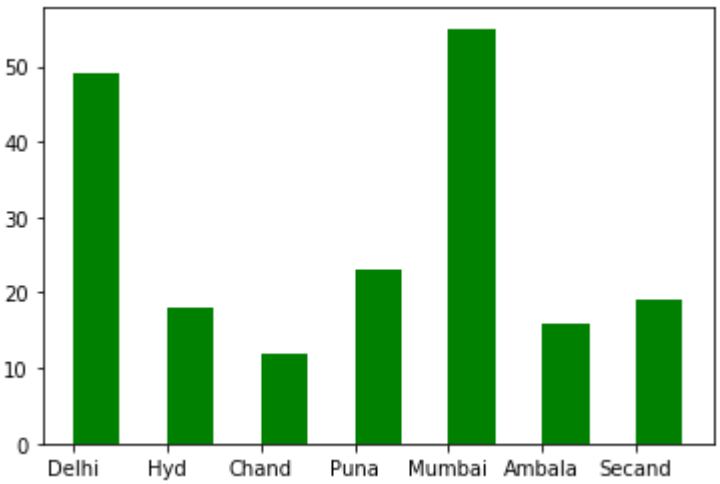
Out[14]: <BarContainer object of 7 artists>



In [ ]:

In [15]:
```
plt.bar(city,day1,width=0.5,align='edge',color='g')
```

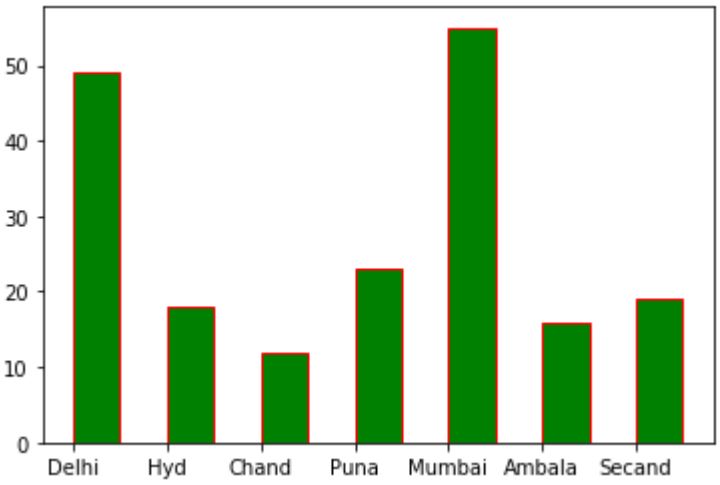
Out[15]: <BarContainer object of 7 artists>



In [ ]:

In [16]:
```
plt.bar(city,day1,width=0.5,align='edge',color='g',edgecolor='r')
```

Out[16]: <BarContainer object of 7 artists>



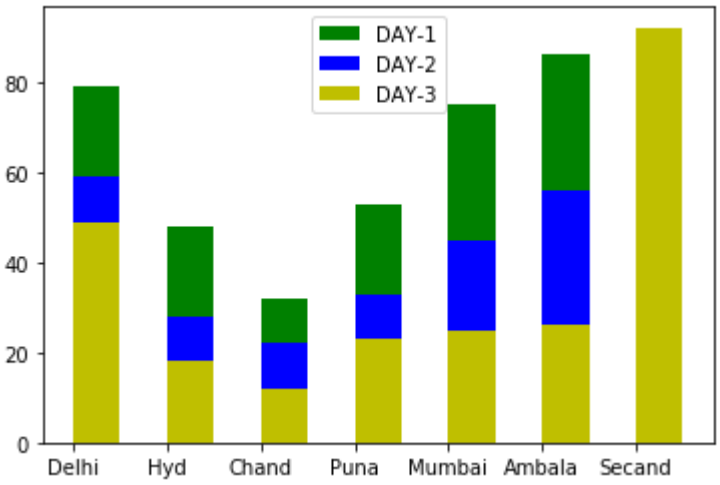
In [ ]:

In [ ]:

In [ ]:

In [29]:
```
# Example

city = ['Delhi','Hyd','Chand','Puna','Mumbai','Ambala','Secand']
day1 = [79,48,32,53,75,86,89]
day2 = [59,28,22,33,45,56,59]
day3 = [49,18,12,23,25,26,92]
```

In [30]:
```
plt.bar(city,day1,width=0.5,align='edge',color='g',label="DAY-1")
plt.bar(city,day2,width=0.5,align='edge',color='b',label="DAY-2")
plt.bar(city,day3,width=0.5,align='edge',color='y',label="DAY-3")

plt.legend()
plt.show()
```

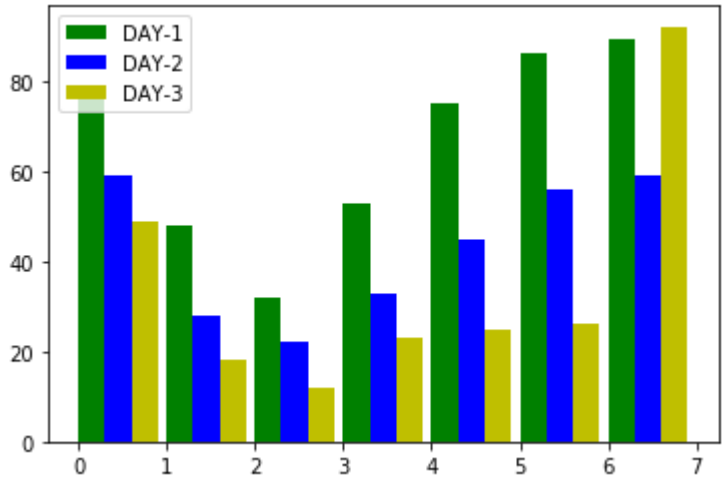


In [ ]:

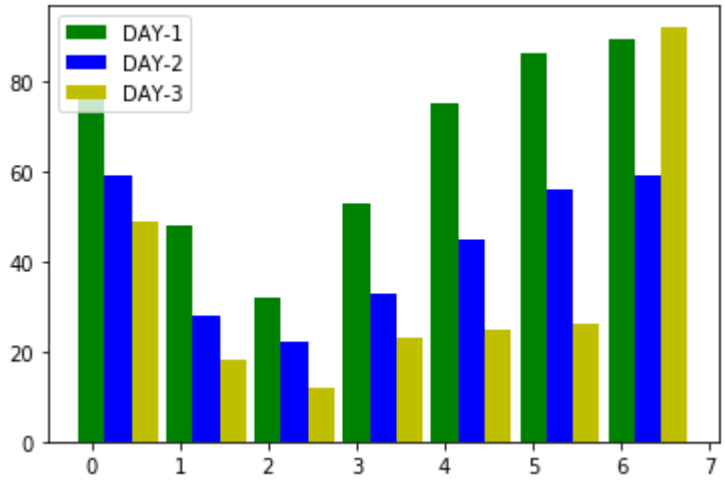
In [ ]:

In [43]:
```
# Example

city = ['Delhi','Hyd','Chand','Puna','Mumbai','Ambala','Secand']
day1 = [79,48,32,53,75,86,89]
day2 = [59,28,22,33,45,56,59]
day3 = [49,18,12,23,25,26,92]

city_data = np.arange(len(city))
width = 0.3
```

In [46]:
```
plt.bar(city_data,day1,width,align='edge',color='g',label="DAY-1")
plt.bar(city_data+width,day2,width,align='edge',color='b',label="DAY-2")
plt.bar(city_data+width+width,day3,width,align='edge',color='y',label="DAY-3")

plt.legend()
plt.show()
```

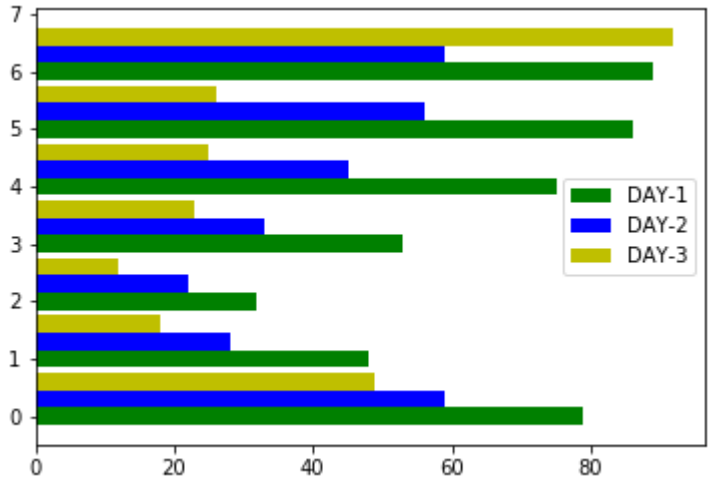


In [47]:
```
plt.bar(city_data,day1,width,align='center',color='g',label="DAY-1")
plt.bar(city_data+width,day2,width,align='center',color='b',label="DAY-2")
plt.bar(city_data+width+width,day3,width,align='center',color='y',label="DAY-3")

plt.legend()
plt.show()
```



In [ ]:

In [48]:
```
plt.barh(city_data,day1,width,align='center',color='g',label="DAY-1")
plt.barh(city_data+width,day2,width,align='center',color='b',label="DAY-2")
plt.barh(city_data+width+width,day3,width,align='center',color='y',label="DAY-3")

plt.legend()
plt.show()
```



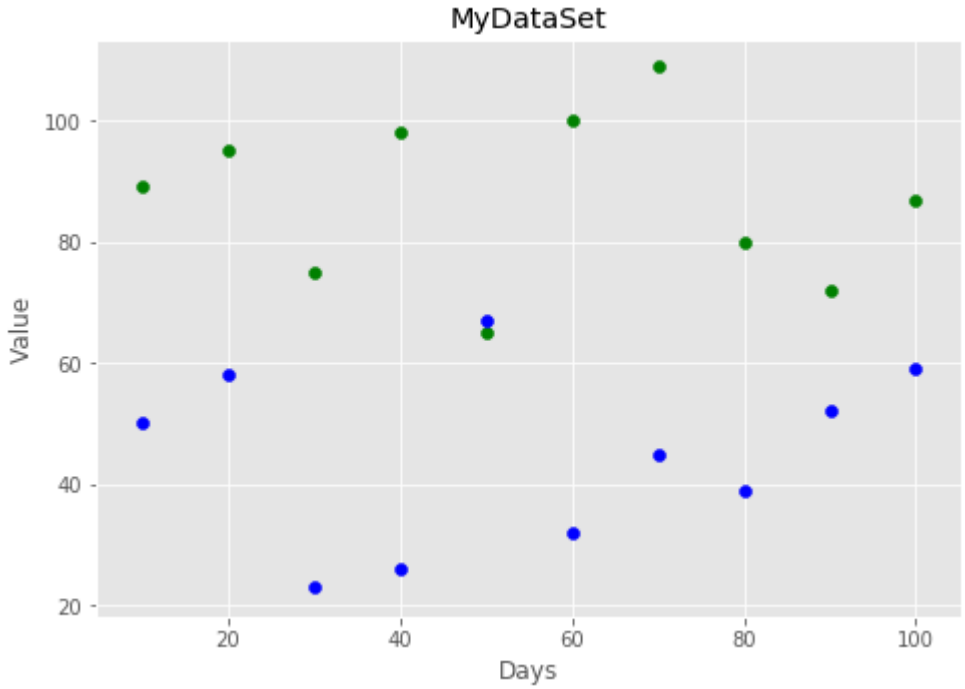
In [ ]:

In [ ]:

In [ ]:

In [54]:
```
# Example
days = [10,20,30,40,50,60,70,80,90,100]
day1 = [89,95,75,98,65,100,109,80,72,87]
day2 = [50,58,23,26,67,32,45,39,52,59]

from matplotlib import style
```

In [56]:
```
# scatter plot

style.use('ggplot')
fig = plt.figure()
data = fig.add_axes([0,0,1,1])
data.scatter(days,day1,color='g')
data.scatter(days,day2,color='b')

data.set_title("MyDataSet")
data.set_xlabel("Days")
data.set_ylabel("Value")

plt.show()
```



In [ ]:

In [ ]:

In [62]:
```
data1 = np.linspace(-5, 5,100)
data1
data2 = np.linspace(-5, 5,100)
data2
```

...

In [70]:
```
# contour plot
res1,res2 = np.meshgrid(data1,data2)
result = np.sqrt(res1**2+res2**2)
fig,setdata = plt.subplots(1,1)
res_data = setdata.contourf(res1,res2,result)
fig.colorbar(res_data)
plt.show()
```