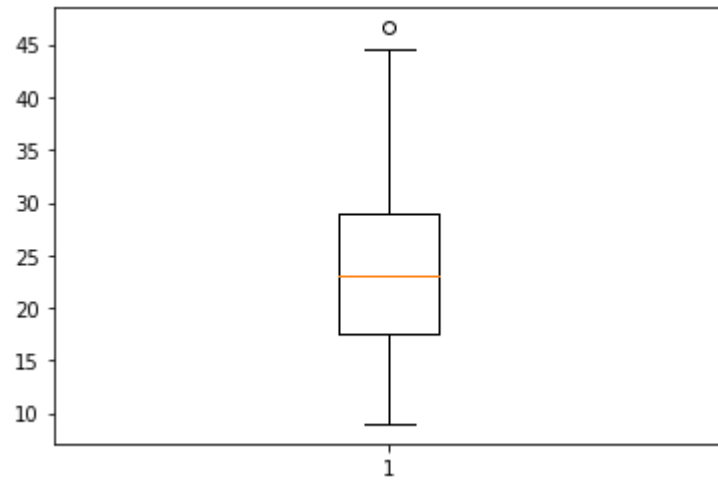


```
In [1]: 1 import pandas as pd
        2 import matplotlib.pyplot as plt
        3 import numpy as np
        4
```

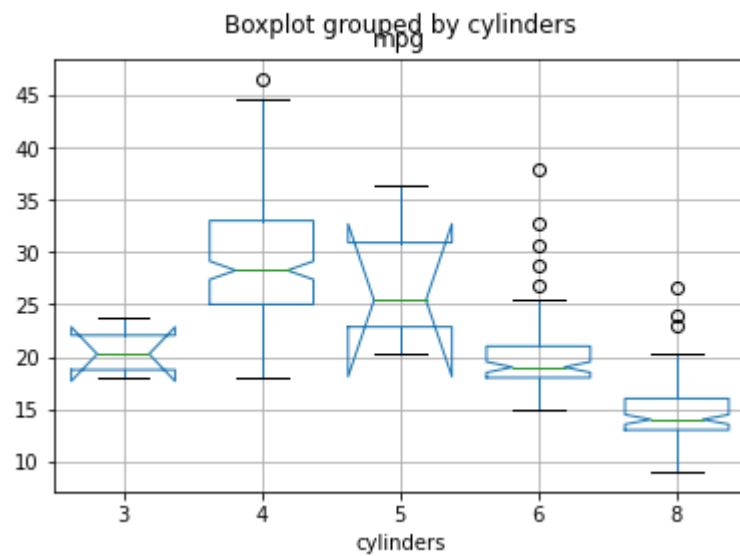
```
In [2]: 1 df=pd.read_csv('Datasets/auto-mpg.csv')
        2 df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 398 entries, 0 to 397
Data columns (total 9 columns):
#   Column          Non-Null Count  Dtype  
---  -
0   mpg              398 non-null   float64
1   cylinders        398 non-null   int64  
2   displacement     398 non-null   float64
3   horsepower       398 non-null   object  
4   weight           398 non-null   int64  
5   acceleration     398 non-null   float64
6   model year      398 non-null   int64  
7   origin           398 non-null   int64  
8   car name        398 non-null   object  
dtypes: float64(3), int64(4), object(2)
memory usage: 28.1+ KB
```

```
In [3]: 1 plt.boxplot(df.mpg)
        2 plt.show()
```

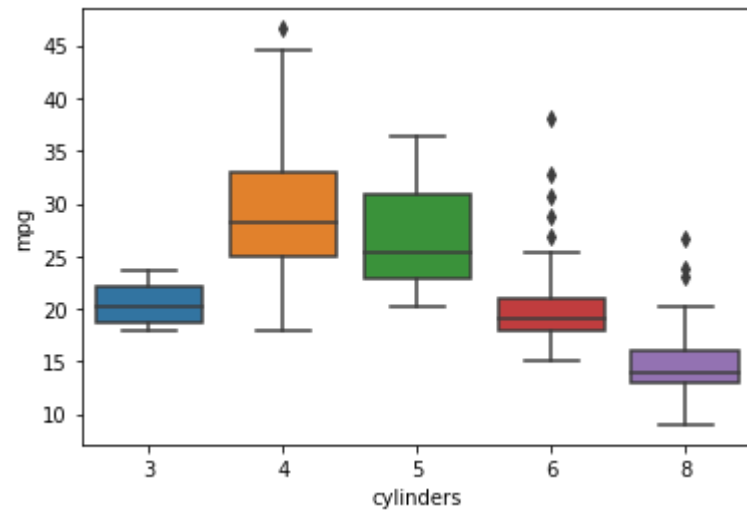


```
In [4]: 1 df.boxplot(column=['mpg'],widths=0.75,notch=True,by='cylinders')
        2 plt.show()
```



```
In [5]: 1 import seaborn as sns
```

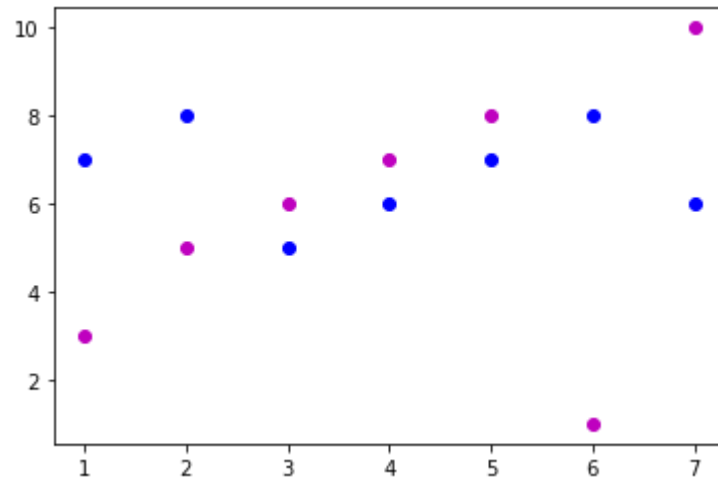
```
In [6]: 1 sns.boxplot(x=df.cylinders,y=df.mpg,data=df)  
2 plt.show()
```



```
In [ ]: 1
```

In [7]:

```
1 x=[1,2,3,4,5,6,7]
2 s1=[7,8,5,6,7,8,6]
3 s2=[3,5,6,7,8,1,10]
4 plt.scatter(x,s1,color='b')
5 plt.scatter(x,s2,color='m')
6 plt.show()
```

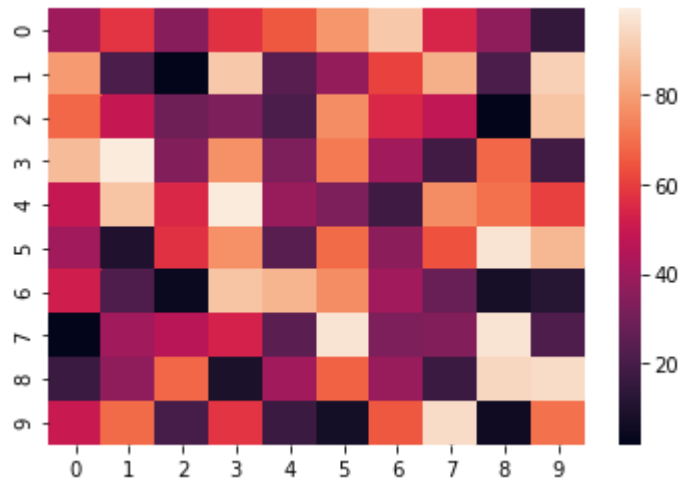


In [8]:

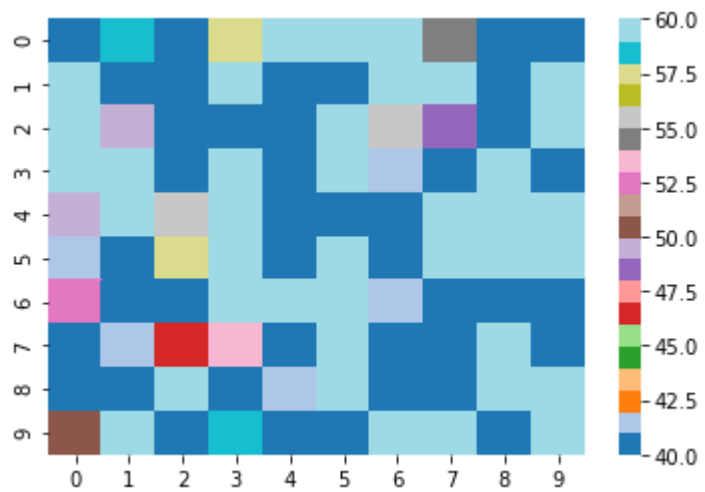
```
1 data=np.random.randint(low=1,high=100,size=(10,10))
2 print(data)
```

```
[[40 58 35 57 65 78 90 54 37 15]
 [79 21  2 90 24 38 61 84 21 92]
 [68 49 29 33 21 76 55 48  2 89]
 [87 99 34 77 33 72 41 19 68 19]
 [49 89 55 99 39 33 18 76 70 60]
 [41 10 57 77 24 69 36 64 97 86]
 [52 22  5 89 85 76 41 28  8 12]
 [ 2 41 46 53 25 97 33 34 97 22]
 [17 37 68  9 41 67 39 17 94 95]
 [50 69 20 58 17  7 65 95  6 70]]
```

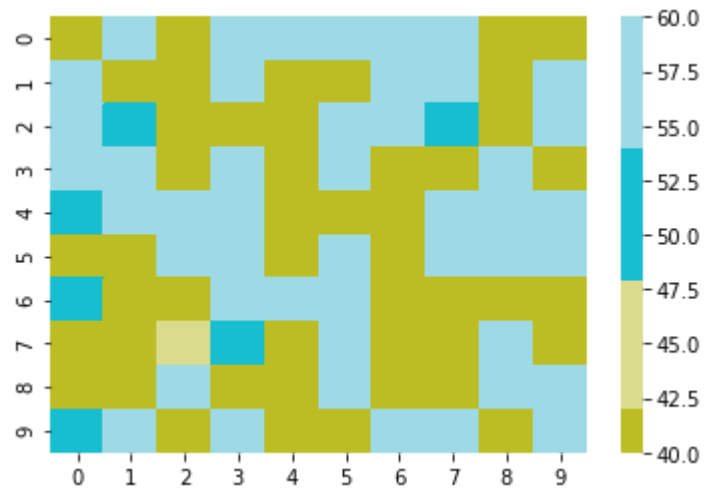
```
In [9]: 1 sns.heatmap(data=data)
        2 plt.show()
```



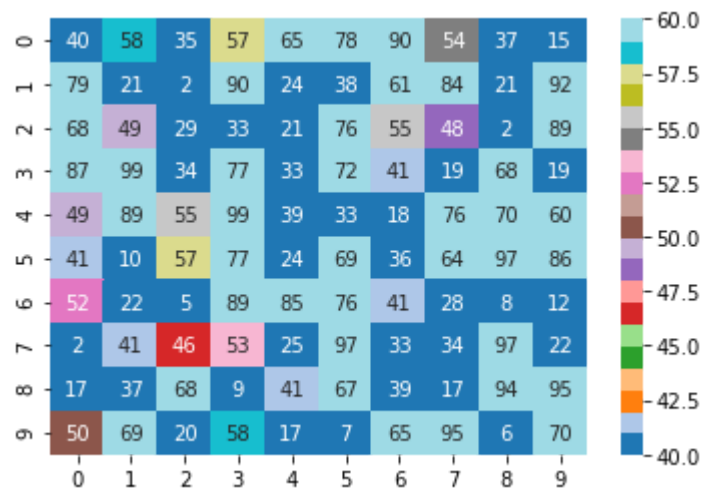
```
In [10]: 1 sns.heatmap(data=data, vmax=60, vmin=40, cmap='tab20')
        2 plt.show()
```



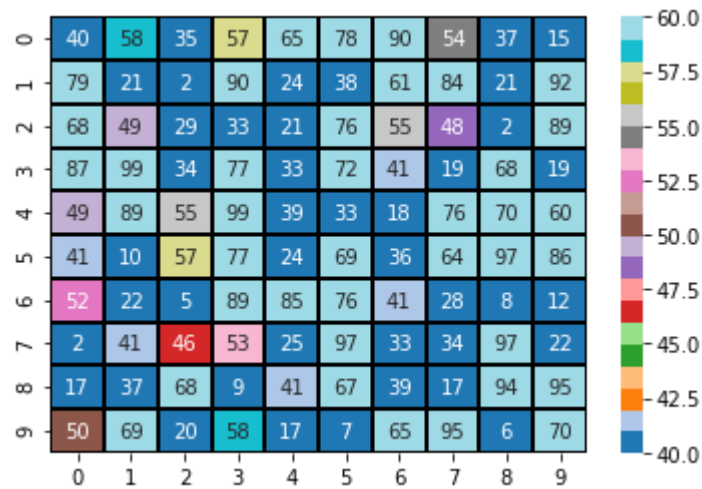
```
In [11]: 1 sns.heatmap(data=data,vmax=60,vmin=40,cmap='tab20',center=0)  
2 plt.show()
```



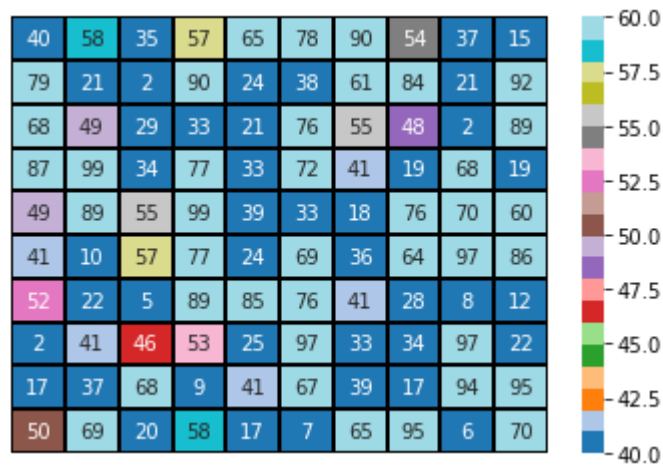
```
In [12]: 1 sns.heatmap(data=data,vmax=60,vmin=40,cmap='tab20',annot=True)  
2 plt.show()
```



```
In [13]: 1 sns.heatmap(data=data,vmax=60,vmin=40,cmap='tab20',annot=True,linewidths=1,linecolor='black')
          2 plt.show()
```



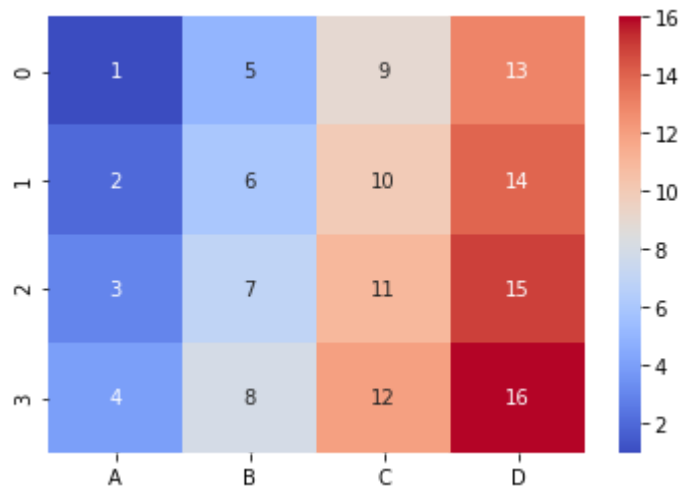
```
In [14]: 1 sns.heatmap(data=data,vmax=60,vmin=40,cmap='tab20',
          2                 annot=True,linewidths=1,linecolor='black',xticklabels=False,yticklabels=False)
          3 plt.show()
```



```
In [15]: 1 d={'A':[1,2,3,4],
2         'B':[5,6,7,8],
3         'C':[9,10,11,12],
4         'D':[13,14,15,16]}
5 df=pd.DataFrame(d)
6 print(df)
```

```
   A  B  C  D
0  1  5  9 13
1  2  6 10 14
2  3  7 11 15
3  4  8 12 16
```

```
In [16]: 1 sns.heatmap(df,cmap='coolwarm',annot=True)
2 plt.show()
```



```
In [17]: 1 from pywaffle import Waffle
```

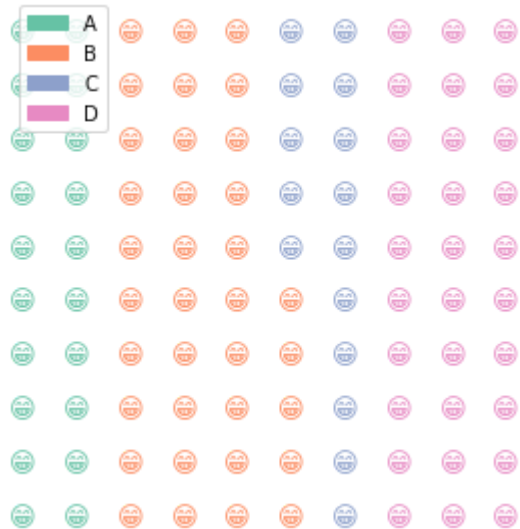
```
In [18]: 1 data={'C':['A','B','C','D'],
2         'Value':[20,35,15,30]}
3 df=pd.DataFrame(df)
```



```
In [27]: 1 data={'C':['A','B','C','D'],  
2         'Value':[20,35,15,30]}  
3 df=pd.DataFrame(data)  
4 fig=plt.figure(FigureClass=Waffle,  
5                 rows=10,  
6                 values=df['Value'],  
7                 labels=list(df['C']),  
8                 legend={'loc':'upper left'})
```



```
In [25]: 1 data={'C':['A','B','C','D'],
2         'Value':[20,35,15,30]}
3 df=pd.DataFrame(data)
4 fig=plt.figure(FigureClass=Waffle,
5                 rows=10,
6                 values=df['Value'],
7                 labels=list(df['C']),
8                 legend={'loc':'upper left'},
9                 characters='😬')
```



```
In [ ]:
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In [ ]:
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In [ ]:
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In [ ]:
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