Python plots

In [1]:
```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import chart_studio.plotly as py
import cufflinks as cf
import seaborn as sns
```

In [2]:
```
df = pd.read_csv("crimerates-by-state-2005.csv")
```

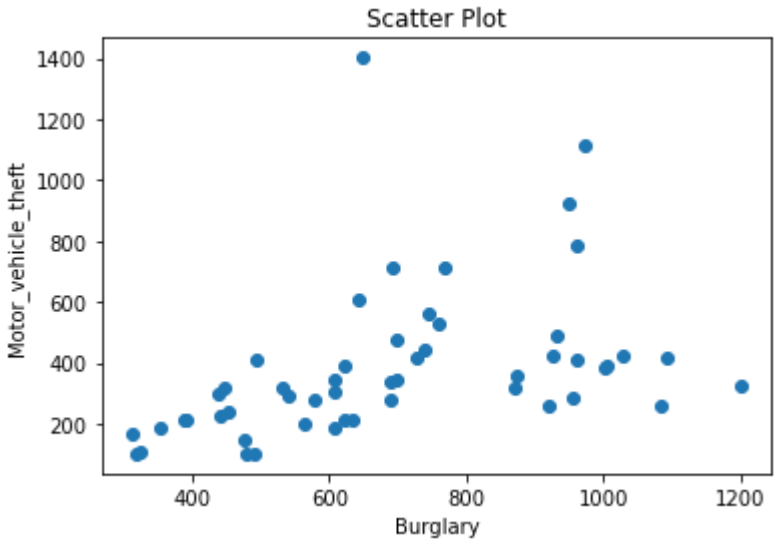
In [3]:
```
df.head()
```

Out[3]:

	state	murder	forcible_rape	robbery	aggravated_assault	burglary	larceny_theft	motor_vehicle_
0	United States	5.6	31.7	140.7	291.1	726.7	2286.3	
1	Alabama	8.2	34.3	141.4	247.8	953.8	2650.0	
2	Alaska	4.8	81.1	80.9	465.1	622.5	2599.1	
3	Arizona	7.5	33.8	144.4	327.4	948.4	2965.2	
4	Arkansas	6.7	42.9	91.1	386.8	1084.6	2711.2	

Python - Scatter plot

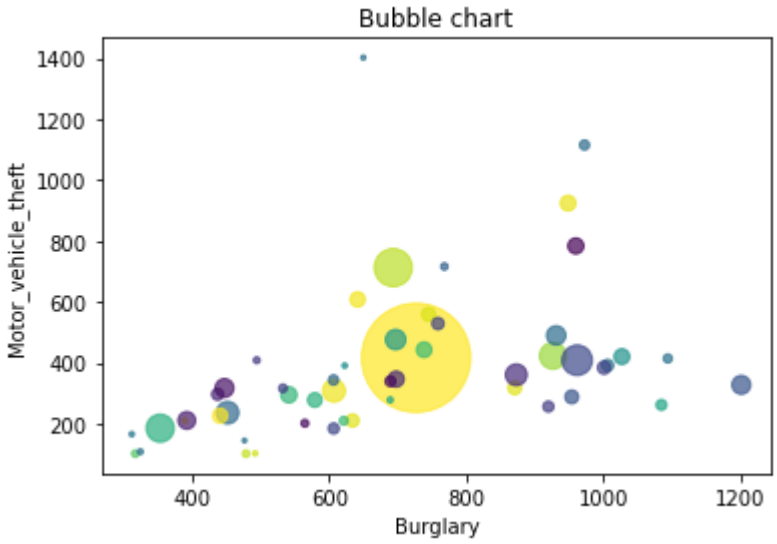
In [4]:
```
plt.scatter(x=df['burglary'], y=df['motor_vehicle_theft'])
plt.title('Scatter Plot')
plt.xlabel('Burglary')
plt.ylabel('Motor_vehicle_theft')
plt.show()
```



Python - bubble chart

In [5]:
```
x = df['burglary']
y = df['motor_vehicle_theft']
z = df['population']/100000
colors = np.random.rand(52)
plt.scatter(x=x, y=y, s=z, c=colors, alpha=0.7)
plt.xlabel("Burglary")
plt.ylabel("Motor_vehicle_theft")
plt.title("Bubble chart")
```

Out[5]:
```
Text(0.5, 1.0, 'Bubble chart')
```



Python - Density Map

In [6]:
```
sns.distplot(df['population'], hist = False, kde = True,
                 kde_kws = {'shade': True, 'linewidth': 2})
plt.title("Density Plot")
```

```
C:\Users\meena\anaconda3\lib\site-packages\seaborn\distributions.py:2619: FutureWarning:
```

```
`distplot` is a deprecated function and will be removed in a future version. Please adap
t your code to use either `displot` (a figure-level function with similar flexibility) o
r `kdeplot` (an axes-level function for kernel density plots).
```

Out[6]:
```
Text(0.5, 1.0, 'Density Plot')
```