```
# Import thư viện
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
```

```
gdp_cap = [974.5803384,5937.029525999998,6223.367465,4797.231267,12779.37964]
life_exp = [43.828,76.423,72.301,42.731,75.32]
```

```
plt.scatter(gdp_cap,life_exp)
plt.show()
```

```
plt.scatter(gdp_cap,life_exp,c='g',alpha=0.5,marker='s',label='value')
plt.xlabel('GDP cap')
plt.ylabel('Life exp')
plt.legend(title='Ghi chú',loc=4)
plt.show()
```

```
N = 20
x = np.random.rand(N)
y = np.random.rand(N)
z = np.random.rand(N)

area = (30 * np.random.rand(N))**2
plt.scatter(x,y,s=area,c=z,alpha=0.5)
plt.show()
```

▾ Demo histogram

```
age = [36,25,38,46,55,68,72,55,36,38,67,45,22,48,91,46,52,61,58,55]
```

```
hist = plt.hist(age, color='y',edgecolor='r',bins=10)
plt.show()
print(hist)
```

```
hist = plt.hist(age, color='y',edgecolor='r',bins=10,density=True)
```

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```
    0.01449275 0.00724638 0.          0.00724638]
    Rectangle(xy=(22, 0), width=6.9, height=0.0144928, angle=0)
```

```python
plt.hist(age, color='y',histtype = 'step')
```

Histogram and Normal Distribution

```python
mu, sigma = 0,1
s = np.random.normal(mu,sigma,1000)

#create bins and histogram
count, bins, ignored = plt.hist(s,35,density=True)

#plot the distribution curve
plt.plot(bins, 1/(sigma * np.sqrt(2*np.pi)) * np.exp(- (bins - mu)**2 / (2 * sigr
plt.show()
```