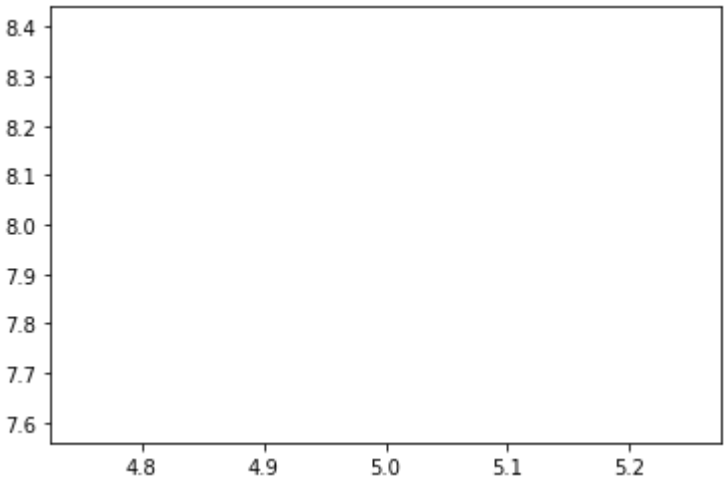
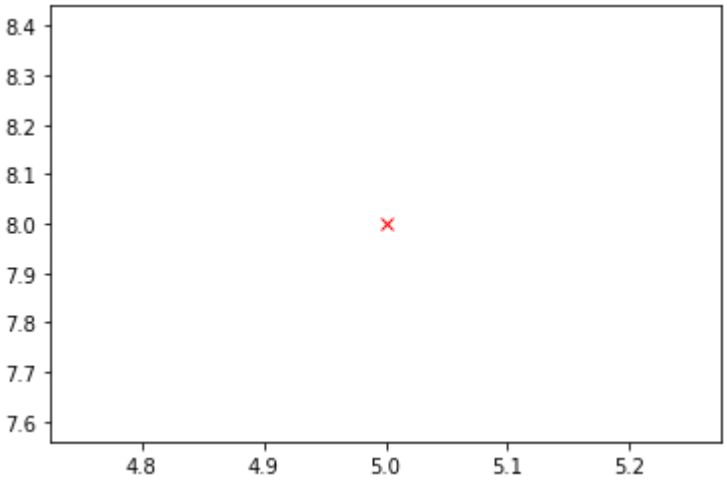
In [1]:
```
import matplotlib.pyplot as plt
```

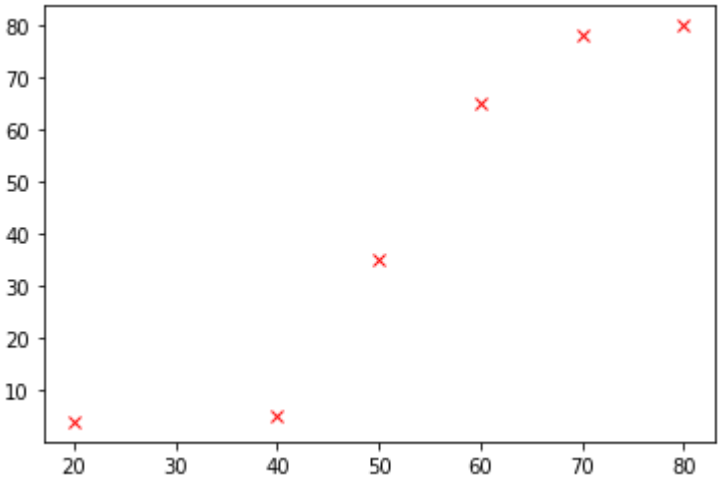
In [2]:
```
x=5
y=8
plt.plot(x,y)
plt.show()
```



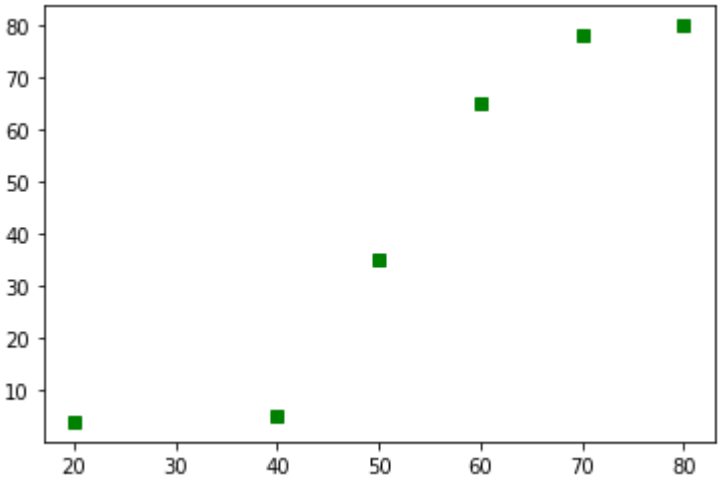
In [3]:
```
x=5
y=8
plt.plot(x,y,'rx')
plt.show()
```



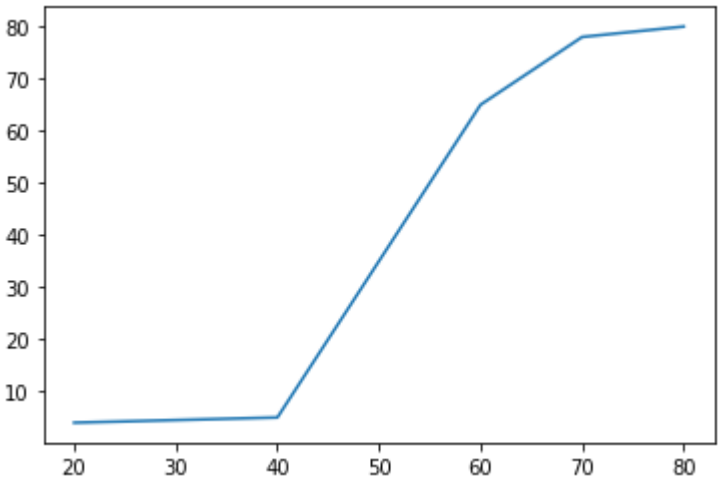
In [4]:
```
x=[20,40,50,60,70,80]
y=[4,5,35,65,78,80]
plt.plot(x,y,'rx')
plt.show()
```



In [5]:
```
x=[20,40,50,60,70,80]
y=[4,5,35,65,78,80]
plt.plot(x,y,'gs')
plt.show()
```

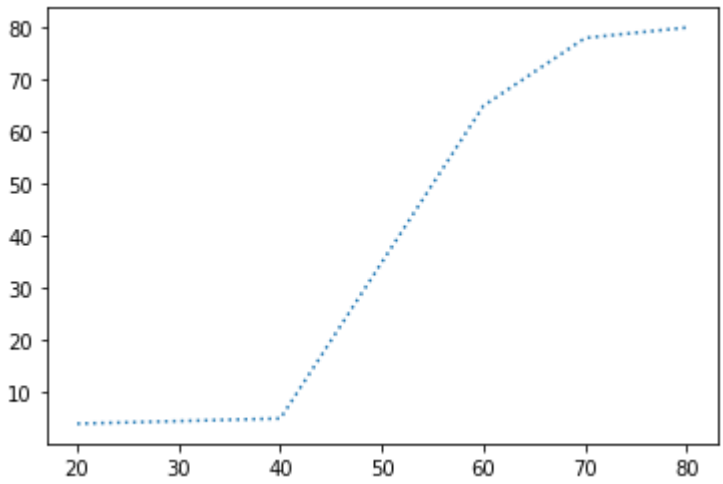


In [6]:
```
x=[20,40,50,60,70,80]
y=[4,5,35,65,78,80]
plt.plot(x,y)
plt.show()
```

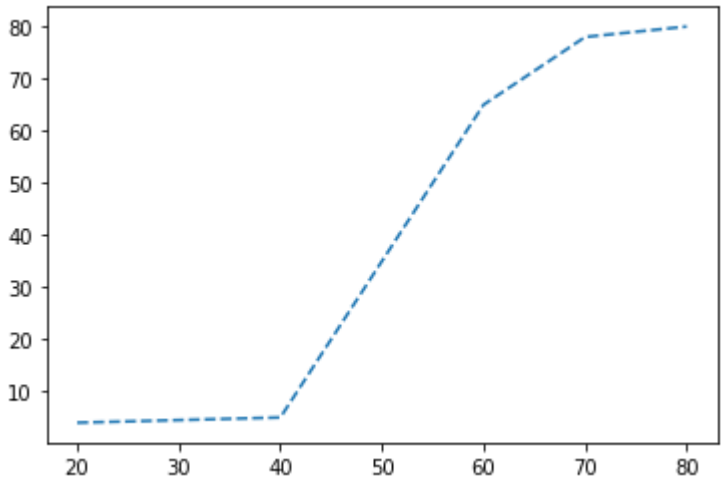


In [7]:
```
x=[20,40,50,60,70,80]
```

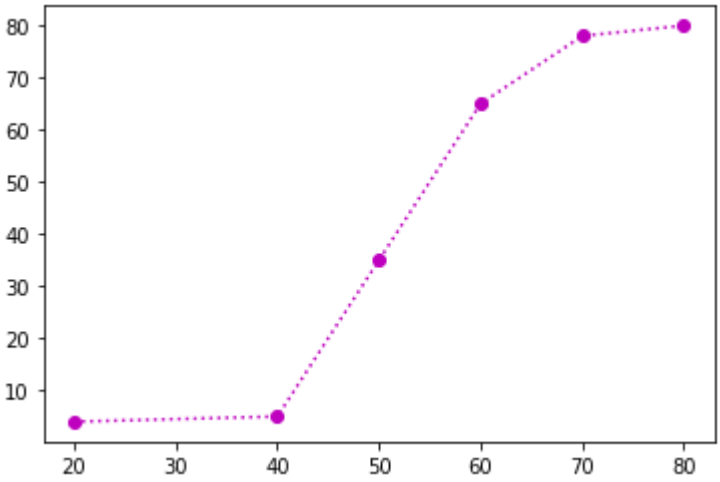
```
y=[4,5,35,65,78,80]
plt.plot(x,y,':')
plt.show()
```



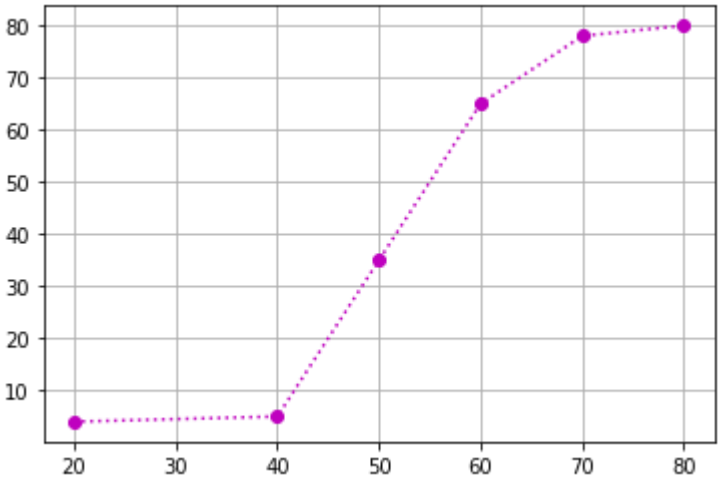
In [8]:
```
x=[20,40,50,60,70,80]
y=[4,5,35,65,78,80]
plt.plot(x,y,'--')
plt.show()
```



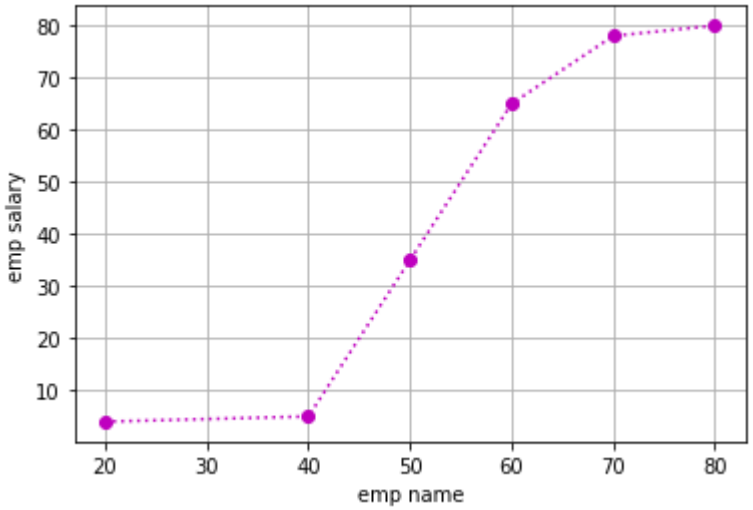
In [9]:
```
x=[20,40,50,60,70,80]
y=[4,5,35,65,78,80]
plt.plot(x,y,'mo:')
plt.show()
```



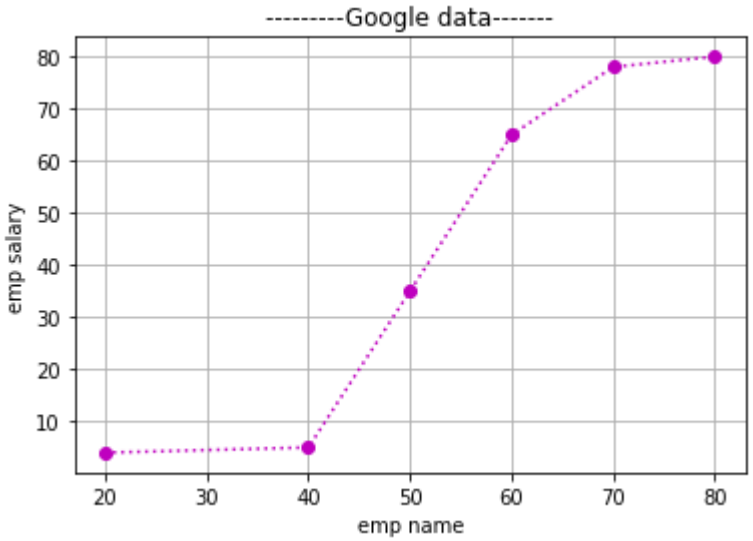
In [10]:
```
x=[20,40,50,60,70,80]
y=[4,5,35,65,78,80]
plt.plot(x,y,'mo:')
plt.grid()
plt.show()
```



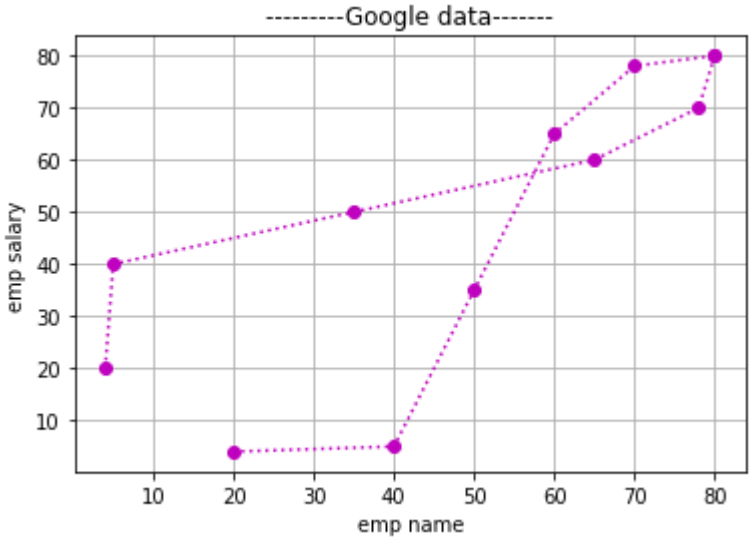
In [11]:
```
x=[20,40,50,60,70,80]
y=[4,5,35,65,78,80]
plt.plot(x,y,'mo:')
plt.xlabel('emp name')
plt.ylabel('emp salary')
plt.grid()
plt.show()
```



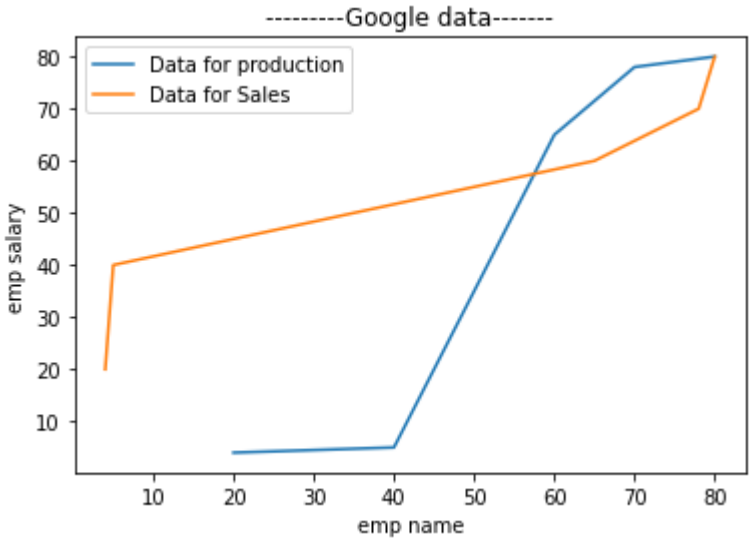
In [12]:
```
x=[20,40,50,60,70,80]
y=[4,5,35,65,78,80]
plt.plot(x,y,'mo:')
plt.xlabel('emp name')
plt.ylabel('emp salary')
plt.title('---------Google data-------')
plt.grid()
plt.show()
```



In [13]:
```
x1=[20,40,50,60,70,80]
y1=[4,5,35,65,78,80]

x2=[4,5,35,65,78,80]
y2=[20,40,50,60,70,80]

plt.plot(x1,y1,'mo:')
plt.plot(x2,y2,'mo:')
plt.xlabel('emp name')
plt.ylabel('emp salary')
plt.title('---------Google data-------')
plt.grid()
plt.show()
```



In [14]:
```
x1=[20,40,50,60,70,80]
y1=[4,5,35,65,78,80]

x2=[4,5,35,65,78,80]
y2=[20,40,50,60,70,80]

plt.plot(x1,y1,label='Data for production')
plt.plot(x2,y2,label='Data for Sales')
plt.xlabel('emp name')
plt.ylabel('emp salary')
plt.title('---------Google data-------')
# plt.grid()
plt.legend()
plt.show()
```



In [15]:
```
import numpy as np
```

In [16]:
```
ar=np.array([[1,2,3,4,5],[11,22,33,44,55],[12,23,34,45,56]])
ar
```

Out[16]:
```
array([[ 1,  2,  3,  4,  5],
       [11, 22, 33, 44, 55],
       [12, 23, 34, 45, 56]])
```

In [17]:
```
print(ar[2][0])
```

```
12
```

In [18]:
```
ar=np.linspace(3,5)
```

In [19]:
```
ar
```

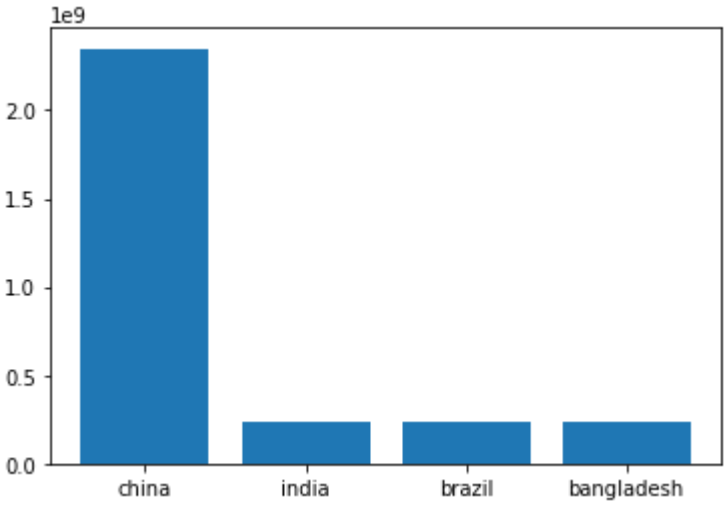
Out[19]:
```
array([3.        , 3.04081633, 3.08163265, 3.12244898, 3.16326531,
       3.20408163, 3.24489796, 3.28571429, 3.32653061, 3.36734694,
       3.40816327, 3.44897959, 3.48979592, 3.53061224, 3.57142857,
       3.6122449 , 3.65306122, 3.69387755, 3.73469388, 3.7755102 ,
       3.81632653, 3.85714286, 3.89795918, 3.93877551, 3.97959184,
       4.02040816, 4.06122449, 4.10204082, 4.14285714, 4.18367347,
       4.2244898 , 4.26530612, 4.30612245, 4.34693878, 4.3877551 ,
       4.42857143, 4.46938776, 4.51020408, 4.55102041, 4.59183673,
       4.63265306, 4.67346939, 4.71428571, 4.75510204, 4.79591837,
       4.83673469, 4.87755102, 4.91836735, 4.95918367, 5.        ])
```

In [20]:
```
ar=np.linspace(3,5,10)
ar
```

Out[20]:
```
array([3.        , 3.22222222, 3.44444444, 3.66666667, 3.88888889,
       4.11111111, 4.33333333, 4.55555556, 4.77777778, 5.        ])
```

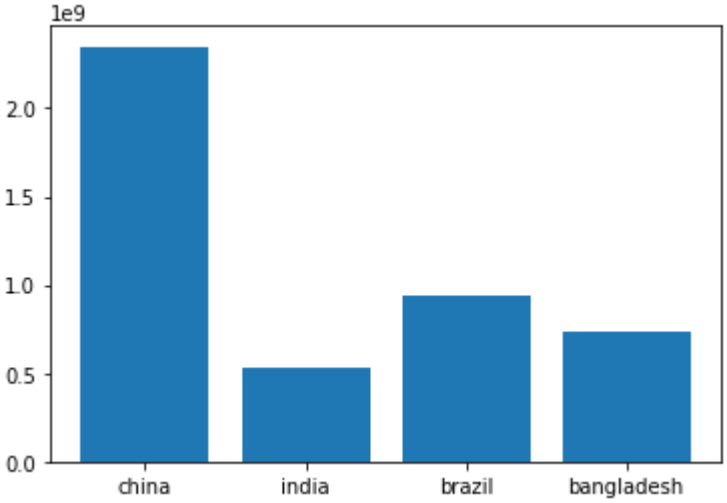
In [21]:
```
# create a python plot to prepare a bar chart for the given table.
country=['china','india','brazil','bangladesh' ]
population=[2349006998,234900677,234900678,234900679]
plt.bar(country,population)
```

Out[21]:
```
<BarContainer object of 4 artists>
```

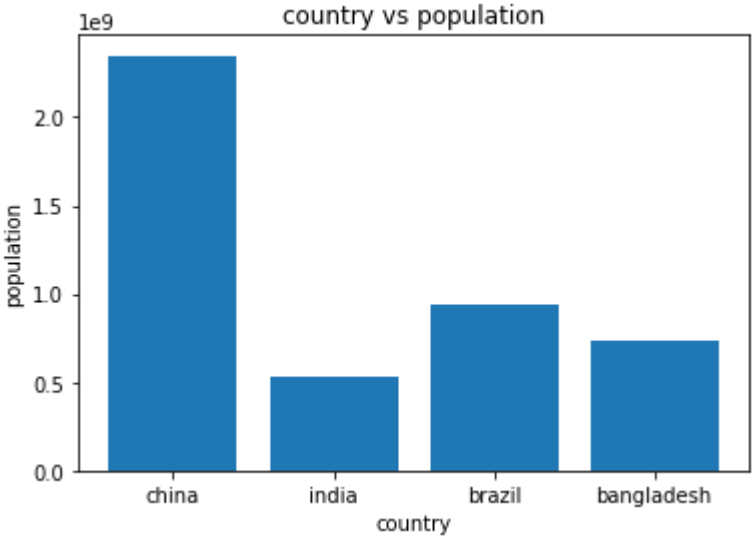


In [22]:
```
country=['china','india','brazil','bangladesh' ]
population=[2349006998,534900677,934900678,734900679]
plt.bar(country,population)
```

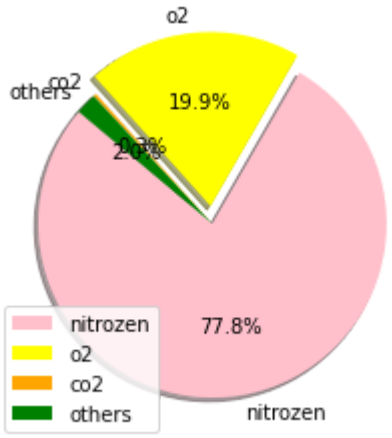
Out[22]:
```
<BarContainer object of 4 artists>
```



In [24]:
```
plt.xlabel("country")
plt.ylabel("population")
plt.title("country vs population")
plt.bar(country,population)
plt.show()
```



In [25]:
```
# display the components of air in a form of pie chart
gases=['nitrozen','o2','co2','others']
sizes=[78,20,0.3,1.97]
colors=['pink','yellow','orange','green']
plt.pie(sizes,explode=(0,0.1,0,0),labels=gases,colors=colors,autopct='%1.1f%%',shadow=
plt.legend()
plt.show()
```



In [ ]: