

In [2]:

```

1 import matplotlib.pyplot as plt
2 import pandas as pd
3 import numpy as np

```

C:\Users\student\AppData\Roaming\Python\Python37\site-packages\pandas\compat\\_optional.py:138: UserWarning: Pandas requires version '2.7.0' or newer of 'numexpr' (version '2.6.8' currently installed).  
warnings.warn(msg, UserWarning)

In [3]:

```

1 df=pd.read_csv("sales_data_sample (1).csv")
2 df

```

Out[3]:

	ORDERNUMBER	QUANTITYORDERED	PRICEEACH	ORDERLINENUMBER	SALES	ORD
0	10107	30	95.70	2	2871.00	:
1	10121	34	81.35	5	2765.90	5/7/:
2	10134	41	94.74	2	3884.34	7/1/:
3	10145	45	83.26	6	3746.70	:
4	10159	49	100.00	14	5205.27	11/:
...	...	...	...	...	...	...
2818	10350	20	100.00	15	2244.40	
2819	10373	29	100.00	1	3978.51	
2820	10386	43	100.00	4	5417.57	3/1/:
2821	10397	34	62.24	1	2116.16	:
2822	10414	47	65.52	9	3079.44	5/6/:

2823 rows × 16 columns



In [4]:

```
1 df.columns
```

Out[4]:

```

Index(['ORDERNUMBER', 'QUANTITYORDERED', 'PRICEEACH', 'ORDERLINENUMBER',
      'SALES', 'ORDERDATE', 'STATUS', 'QTR_ID', 'MONTH_ID', 'YEAR_ID',
      'PRODUCTLINE', 'MSRP', 'PRODUCTCODE', 'CUSTOMERNAME', 'COUNTRY',
      'DEALSIZE'],
      dtype='object')

```

In [7]:

```

1 newdf=df.groupby('COUNTRY')
2 country=df['COUNTRY'].unique()
3 sum(newdf.get_group('USA')['SALES'])

```

Out[7]:

3627982.83

In [11]:

```

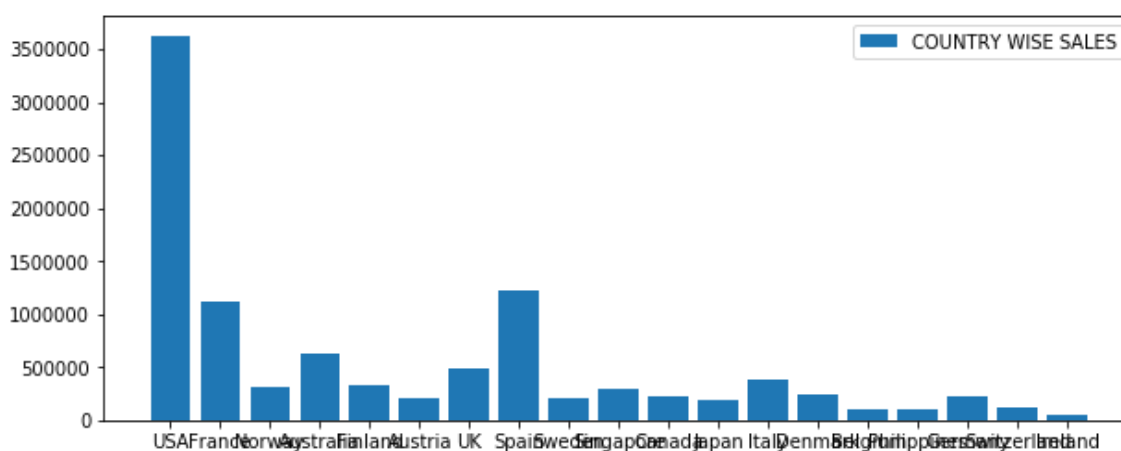
1 newdf=df.groupby('COUNTRY')
2 country=df['COUNTRY'].unique()
3 sales=[]
4 for cname in country:
5     sales.append(sum(newdf.get_group(cname)['SALES']))
6
7 f=plt.figure()
8 f.set_figwidth(30)
9 f.set_figwidth(10)
10 newdf=df.groupby('COUNTRY')
11 country=df['COUNTRY'].unique()
12 sales=[]
13 for cname in country :
14     sales.append(sum(newdf.get_group(cname)['SALES']))
15 f=plt.figure()
16 f.set_figwidth(30)
17 f.set_figwidth(10)
18
19 font1={'family':'serif','color':'blue','size':20}
20 font2={'family':'serif','color':'darkred','size':15}
21 plt.bar(country,sales,label="COUNTRY WISE SALES")
22 plt.legend(loc="best")

```

Out[11]:

&lt;matplotlib.legend.Legend at 0x21a4ea75470&gt;

&lt;Figure size 720x288 with 0 Axes&gt;

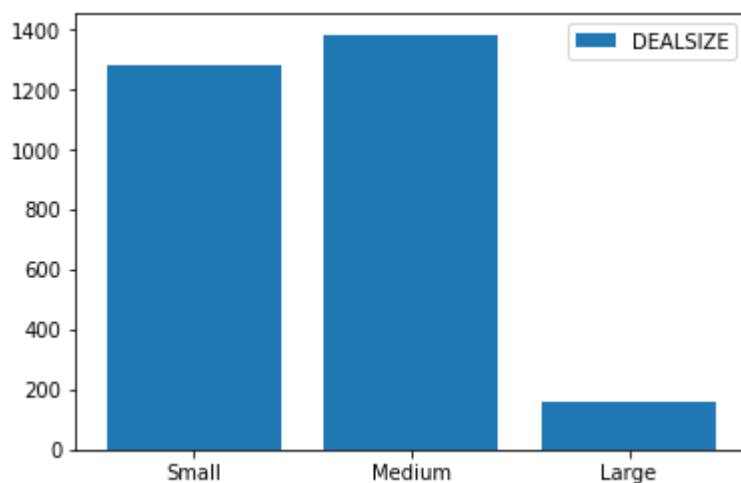


In [14]:

```
1 dsize=df['DEALSIZE'].unique()
2 deal=[]
3 newdf=df.groupby('DEALSIZE')
4 for dname in dsize:
5     deal.append(newdf.get_group(dname)['DEALSIZE'].count())
6
7 plt.bar(df['DEALSIZE'].unique(),deal, label="DEALSIZE")
8 plt.legend(loc="best")
9
10
11
```

Out[14]:

&lt;matplotlib.legend.Legend at 0x21a4e7d0358&gt;



In [15]:

```
1 newdf=df.groupby('STATUS')
2 tot=df['STATUS'].count()
3 status=df['STATUS'].unique()
4 percent=[]
5 for sname in status:
6     percent.append(newdf.get_group(sname)['STATUS'].count()*100/tot)
7
```

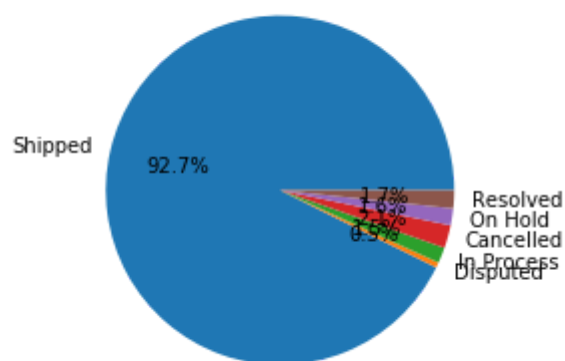
In [16]:

```
1 plt.pie(percent,labels=status,autopct='%1.1f%%')
2 plt.title('Percent of Status resolved, on hold, in process, disputed')
```

Out[16]:

```
Text(0.5, 1.0, 'Percent of Status resolved, on hold, in process, dispute
d')
```

Percent of Status resolved, on hold, in process, disputed

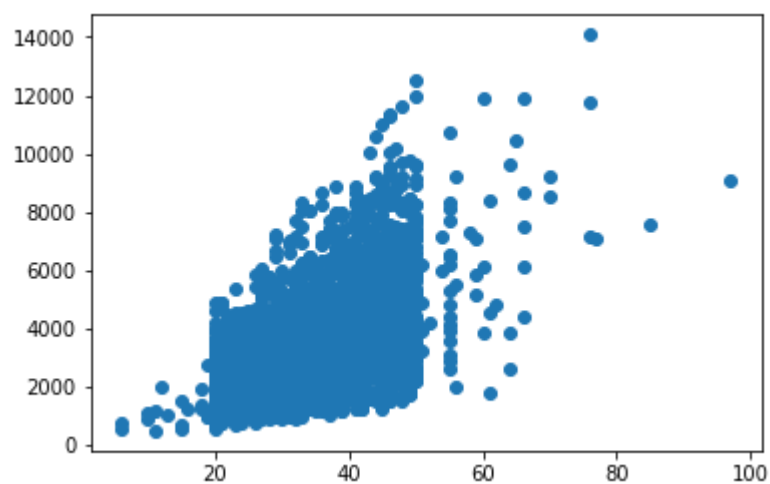


In [17]:

```
1 plt.scatter(df['QUANTITYORDERED'],df['SALES'])
```

Out[17]:

&lt;matplotlib.collections.PathCollection at 0x21a51ca4ef0&gt;



In [ ]:

1