

```
[4] import pandas as pd
df = pd.read_csv('laptops.csv')
print(df.info())
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 1303 entries, 0 to 1302
Data columns (total 13 columns):
Manufacturer                1303 non-null object
Model Name                  1303 non-null object
Category                    1303 non-null object
Screen Size                 1303 non-null object
Screen                      1303 non-null object
CPU                          1303 non-null object
RAM                          1303 non-null object
Storage                     1303 non-null object
GPU                          1303 non-null object
Operating System            1303 non-null object
Operating System Version    1133 non-null object
Weight                      1303 non-null object
Price (Euros)               1303 non-null object
dtypes: object(13)
memory usage: 66.2+ KB
None
```

```
[5] print(df.columns)
```

```
Index(['Manufacturer', 'Model Name', 'Category', 'Screen Size', 'Screen',
      'CPU', 'RAM', 'Storage', 'GPU', 'Operating System',
      'Operating System Version', 'Weight', 'Price (Euros)'],
      dtype='object')
```

```
[8] def clean_columns(col):
    col = col.strip()
    col = col.replace('(', '')
    col = col.replace(')', '')
    col = col.replace(' ', '_')
    col = col.lower()
    return col
df.columns = [clean_columns(col) for col in df.columns]
print(df.columns)
```

```
Index(['manufacturer', 'model_name', 'category', 'screen_size', 'screen',
      'cpu', 'ram', 'storage', 'gpu', 'operating_system',
      'operating_system_version', 'weight', 'price_euros'],
      dtype='object')
```

```
[14] # df['screen_size'] = df.screen_size.str.replace('\"', '').astype('float')
# df.rename({'screen_size': 'screen_size_inches'}, axis=1, inplace=True)
df.head()

from pyecharts import Bar, enable_interact
```

```
enable_interact()
bar = Bar("厂家产品尺寸")
name = '厂家'

bar.add(name, df.manufacturer, df.screen_size_inches)

bar
```

厂家产品尺寸

