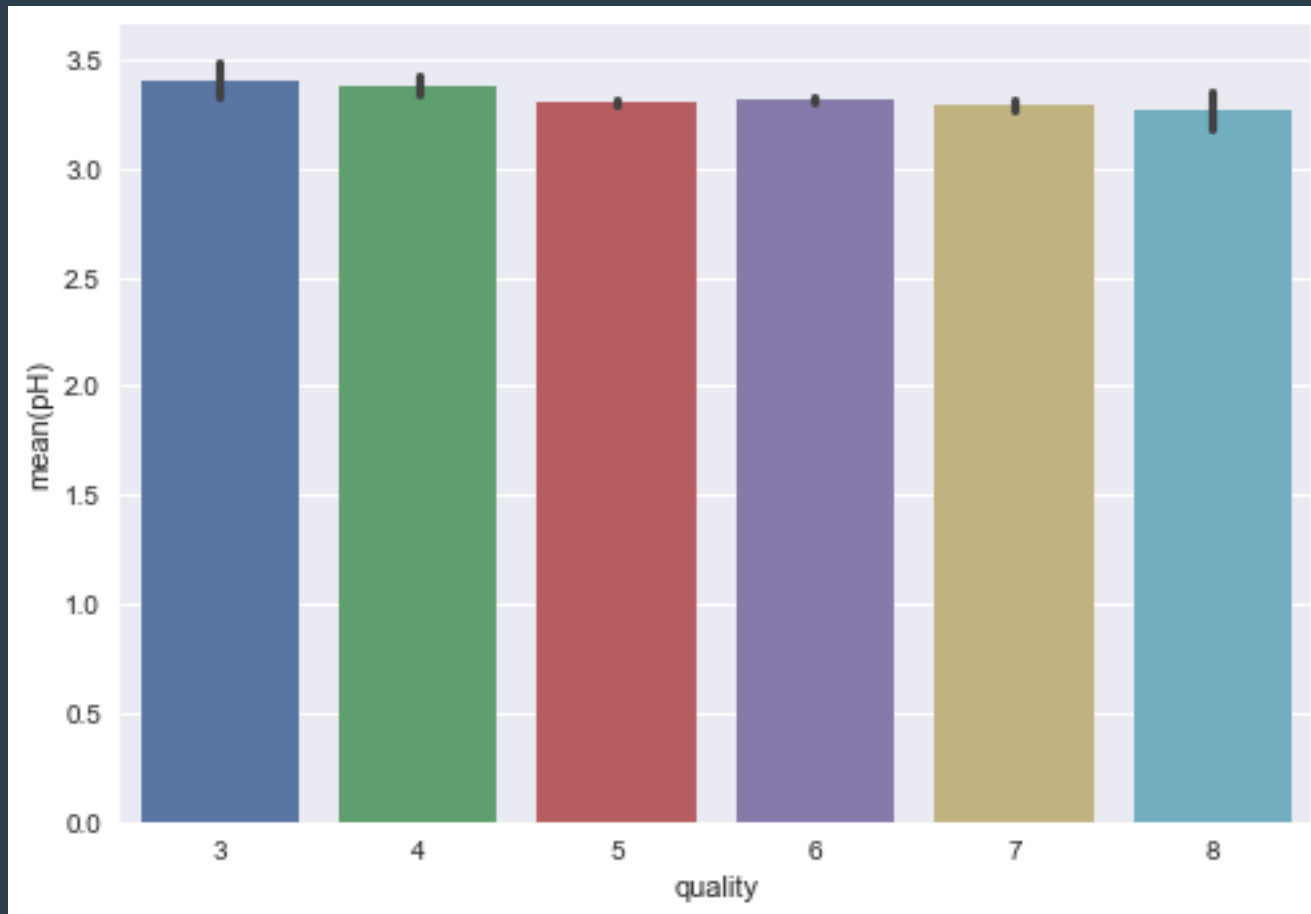


Python数据可视化

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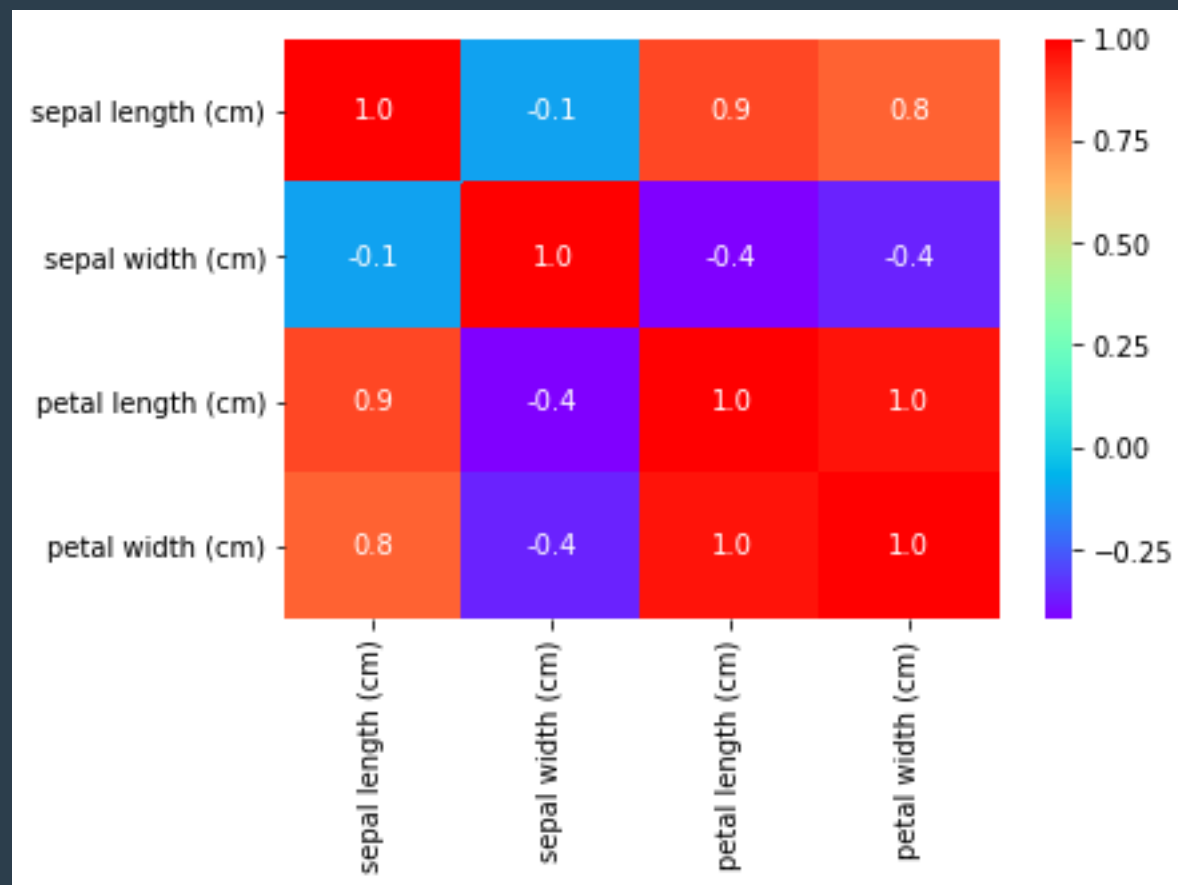


01 Python Seaborn之数据探索1



```
sns.barplot(x = 'quality', y = 'pH', data = df, estimator = np.mean)
```

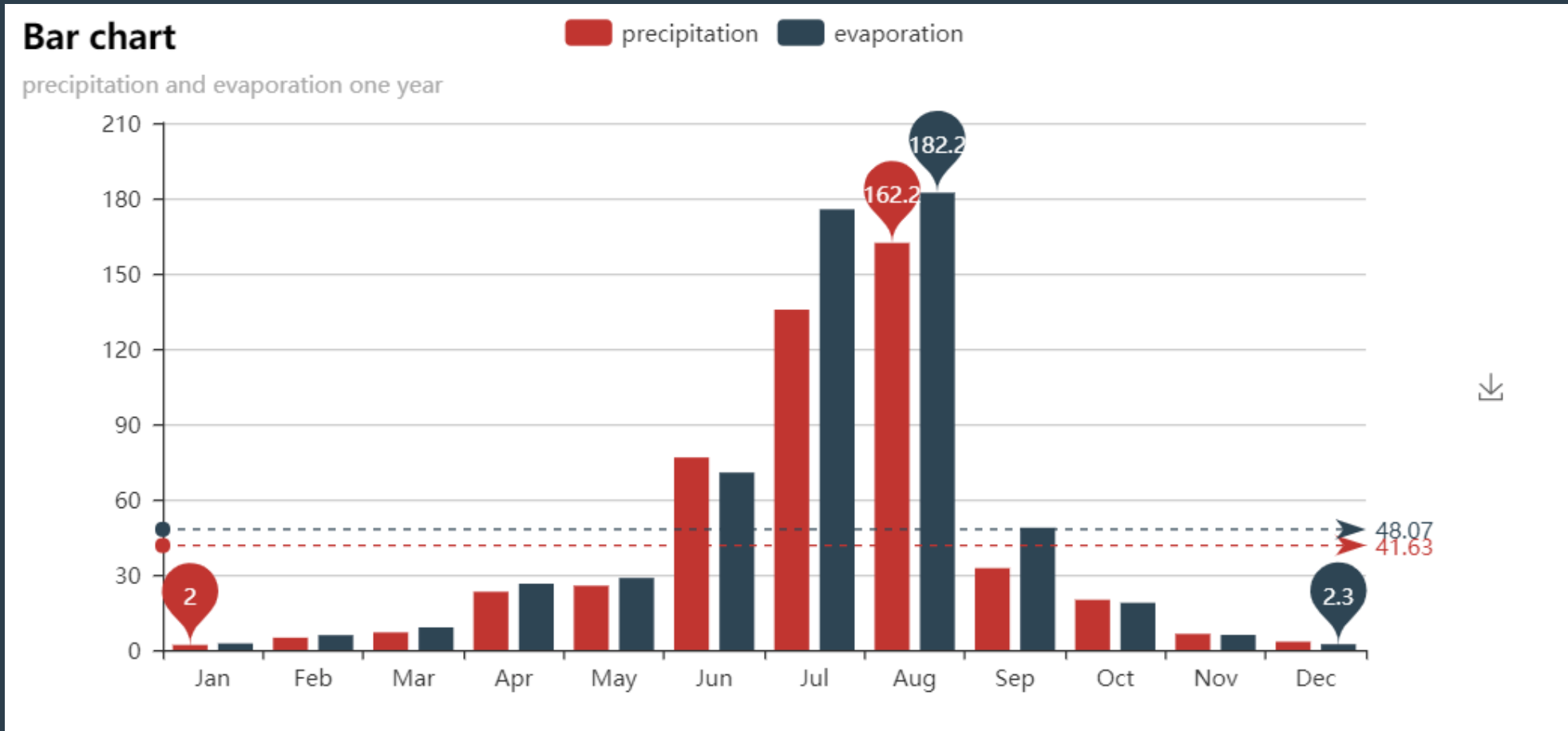
01 Python Seaborn之数据探索2



```
import seaborn as sns
import pandas as pd
from sklearn import datasets
```

```
iris = datasets.load_iris()
df_iris = pd.DataFrame(iris.data)
df_iris.columns = iris.feature_names
corr_iris = df_iris.corr()
print(corr_iris)
sns.heatmap(corr_iris, annot = True, fmt = '.1f' , cmap =
'rainbow' )
```

02 Python PyEcharts



```
from pyecharts import Bar
```

```
attr = ["Jan", "Feb", "Mar", "Apr", "May", "Jun", "Jul", "Aug", "Sep", "Oct", "Nov",  
"Dec"]
```

```
v1 = [2.0, 4.9, 7.0, 23.2, 25.6, 76.7, 135.6, 162.2, 32.6, 20.0, 6.4, 3.3]
```

```
v2 = [2.6, 5.9, 9.0, 26.4, 28.7, 70.7, 175.6, 182.2, 48.7, 18.8, 6.0, 2.3]
```

```
bar = Bar("Bar chart", "precipitation and evaporation one year")
```

```
bar.add("precipitation", attr, v1, mark_line=["average"], mark_point=["max", "min"])
```

```
bar.add("evaporation", attr, v2, mark_line=["average"], mark_point=["max", "min"])
```

```
bar.render()
```

```
from pyecharts import Geo
```

```
data = [  
    ("海门", 9), ("鄂尔多斯", 12), ("招远", 12), ("舟山", 12), ("齐齐哈尔", 14), ("盐城", 15),  
    ("赤峰", 16), ("青岛", 18), ("乳山", 18), ("金昌", 19), ("泉州", 21), ("莱西", 21),  
    ("日照", 21), ("胶南", 22), ("南通", 23), ("拉萨", 24), ("云浮", 24), ("梅州", 25)]  
geo = Geo("全国主要城市空气质量", "data from pm2.5",  
title_color="#fff", title_pos="center",  
width=1200, height=600, background_color='#404a59')  
attr, value = geo.cast(data)  
geo.add("", attr, value, visual_range=[0, 200], visual_text_color="#fff",  
symbol_size=15, is_visualmap=True)  
geo.show_config()  
geo.render()
```