

Actividad 5

March 06, 2018

```
In [ ]: # Cargamos las bibliotecas
import pandas as pd
import numpy as np
from datetime import datetime
```

```
In [ ]: # Leer archivo de datos 00Z
# Convertir la columna CAPE de objeto a número
df = pd.read_csv("df2017CAPE_PW_00Z.csv", header=None, names=['Date', 'CAPE', 'PW'])
df.CAPE=pd.to_numeric(df.CAPE, errors='coerce')
df.head()
```

```
In [ ]: # Leer archivo de datos 12Z
# Convertir la columna CAPE de objeto a número
df1 = pd.read_csv("df2017CAPE_PW_12Z.csv", header=None, names=['Date', 'CAPE', 'PW'])
df1.CAPE=pd.to_numeric(df1.CAPE, errors='coerce')
df1.head()
```

```
In [ ]: # Convertir la cadena de caracteres 'Date' en variable temporal 'NDate' 00Z
df['Ndate'] = pd.to_datetime(df['Date'], format='%d %m %Y')
df['month'] = df['Ndate'].dt.month
df.head()
```

```
Out[ ]:
```

	Date	CAPE	PW	Ndate	month
0	01 01 2017	31.97	13.55	2017-01-01	1
1	02 01 2017	0.00	10.99	2017-01-02	1
2	03 01 2017	0.00	6.42	2017-01-03	1
3	04 01 2017	0.00	8.73	2017-01-04	1
4	05 01 2017	0.14	9.92	2017-01-05	1

```
In [ ]: # Convertir la cadena de caracteres 'Date' en variable temporal 'NDate' 12Z
df1['Ndate'] = pd.to_datetime(df1['Date'], format='%d %m %Y')
df1['month'] = df1['Ndate'].dt.month
df1.head()
```

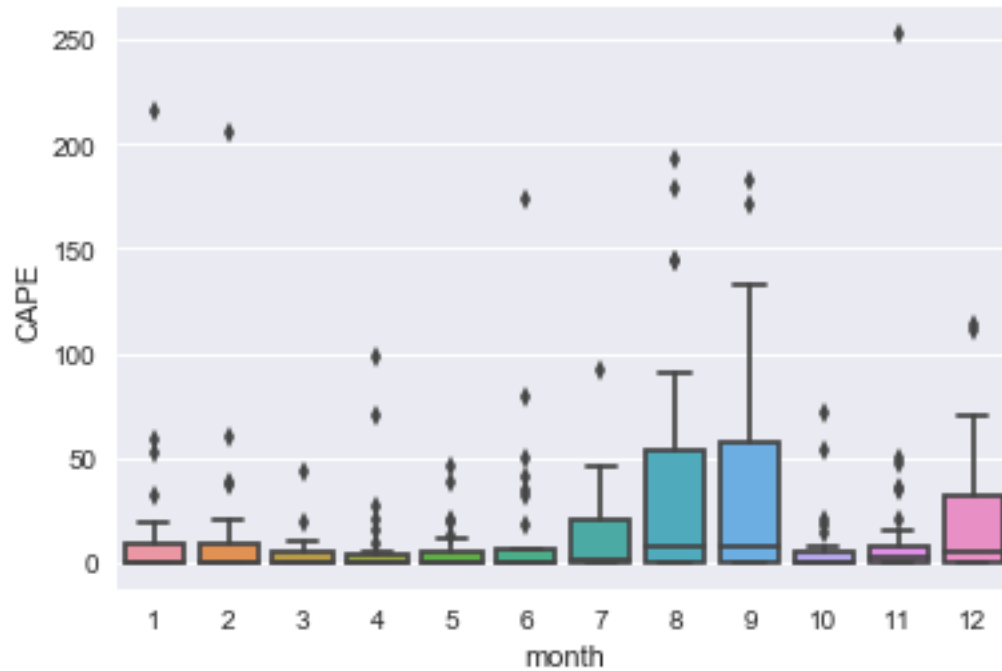
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Out[ ]:
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	Date	CAPE	PW	Ndate	month
0	01 01 2017	2.42	16.18	2017-01-01	1
1	02 01 2017	0.00	6.68	2017-01-02	1
2	03 01 2017	0.00	8.81	2017-01-03	1
3	04 01 2017	0.09	9.40	2017-01-04	1
4	05 01 2017	0.00	11.26	2017-01-05	1

```

In [ ]: # graficar Boxplots por mes 00Z
# Biblioteca Seaborn
import seaborn as sns
import matplotlib.pyplot as plt
ax = sns.boxplot(x="month", y="CAPE", data=df)
plt.show()

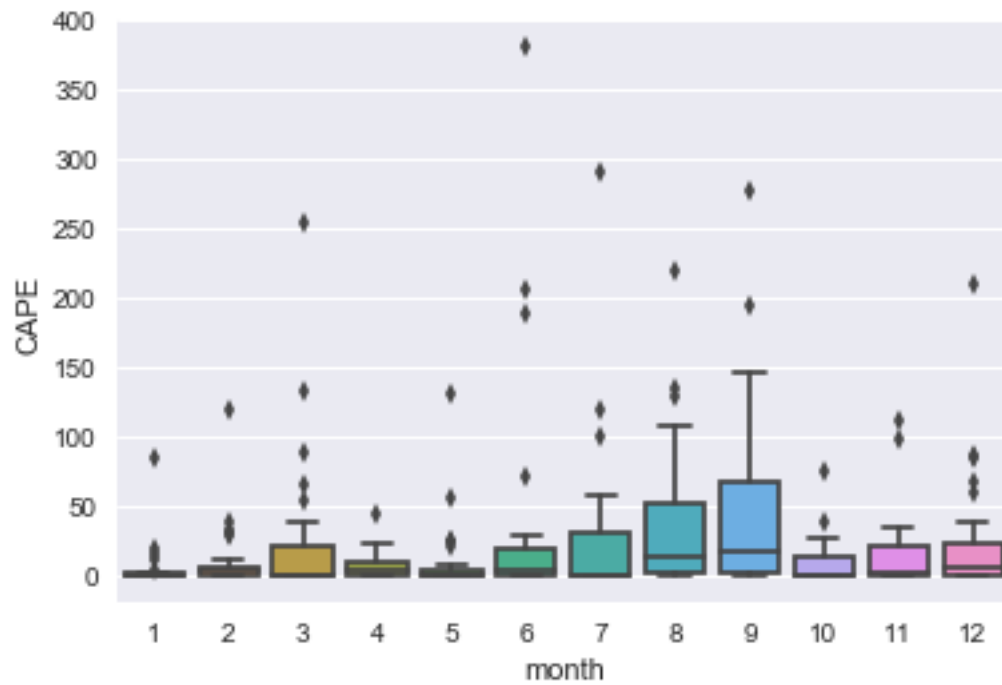
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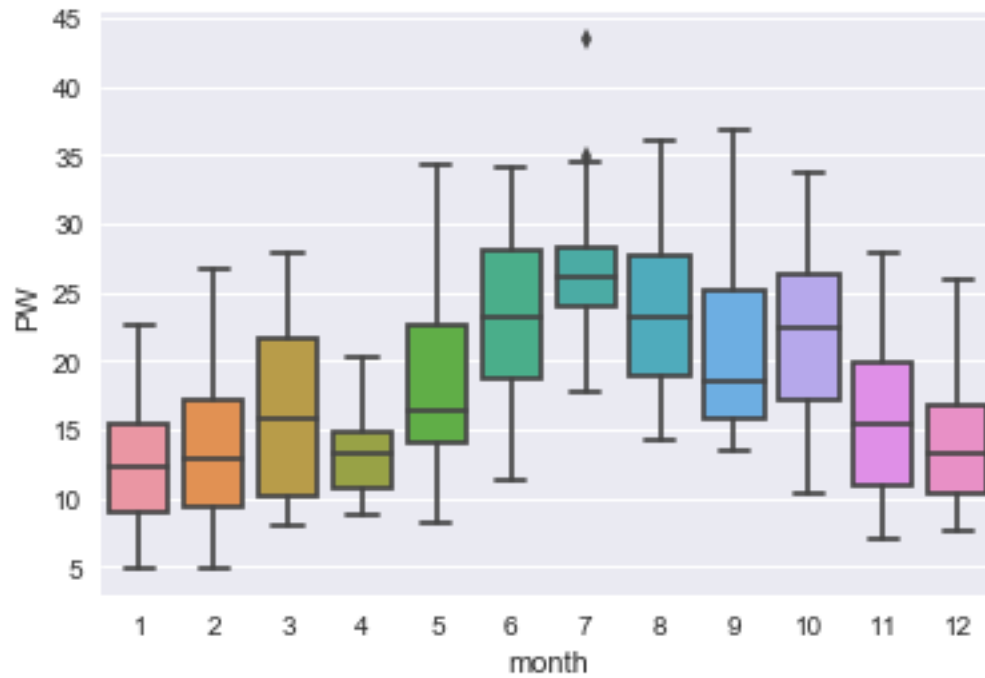
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In [ ]: # graficar Boxplots por mes 12Z
# Biblioteca Seaborn
import seaborn as sns
import matplotlib.pyplot as plt
ax = sns.boxplot(x="month", y="CAPE", data=df1)
plt.show()

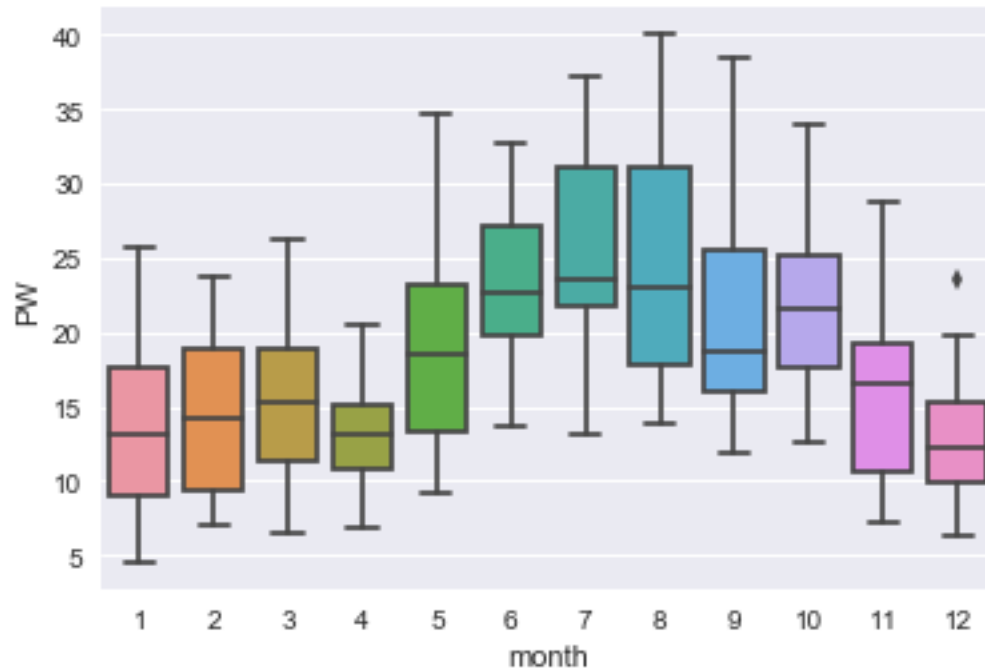
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```
In [ ]: # graficar Boxplots por mes 00Z
# Biblioteca Seaborn
import seaborn as sns
import matplotlib.pyplot as plt
ax = sns.boxplot(x="month", y="PW", data=df)
plt.show()
```

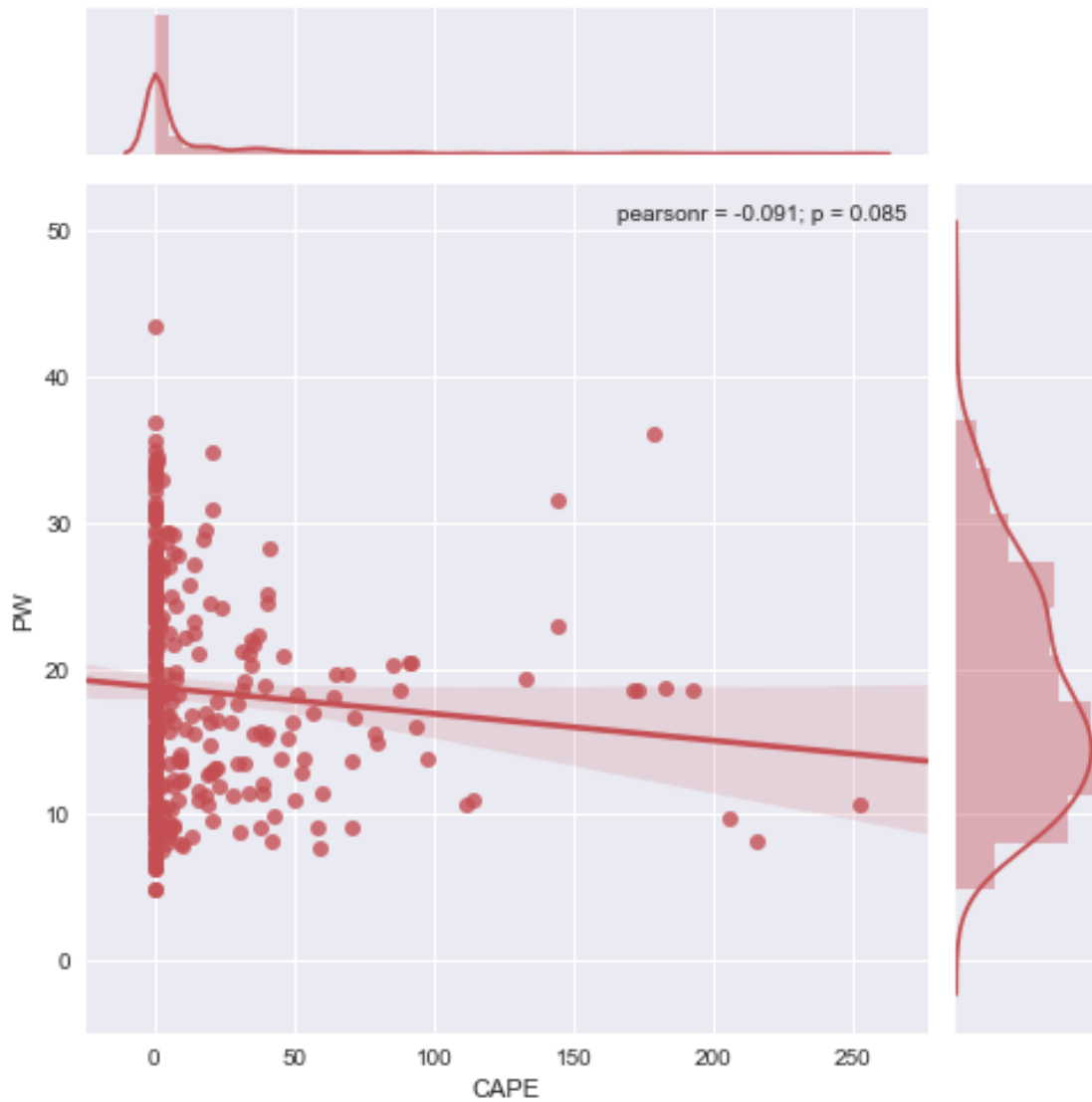


```
In [ ]: # graficar Boxplots por mes 12Z
# Biblioteca Seaborn
import seaborn as sns
import matplotlib.pyplot as plt
ax = sns.boxplot(x="month", y="PW", data=df1)
plt.show()
```



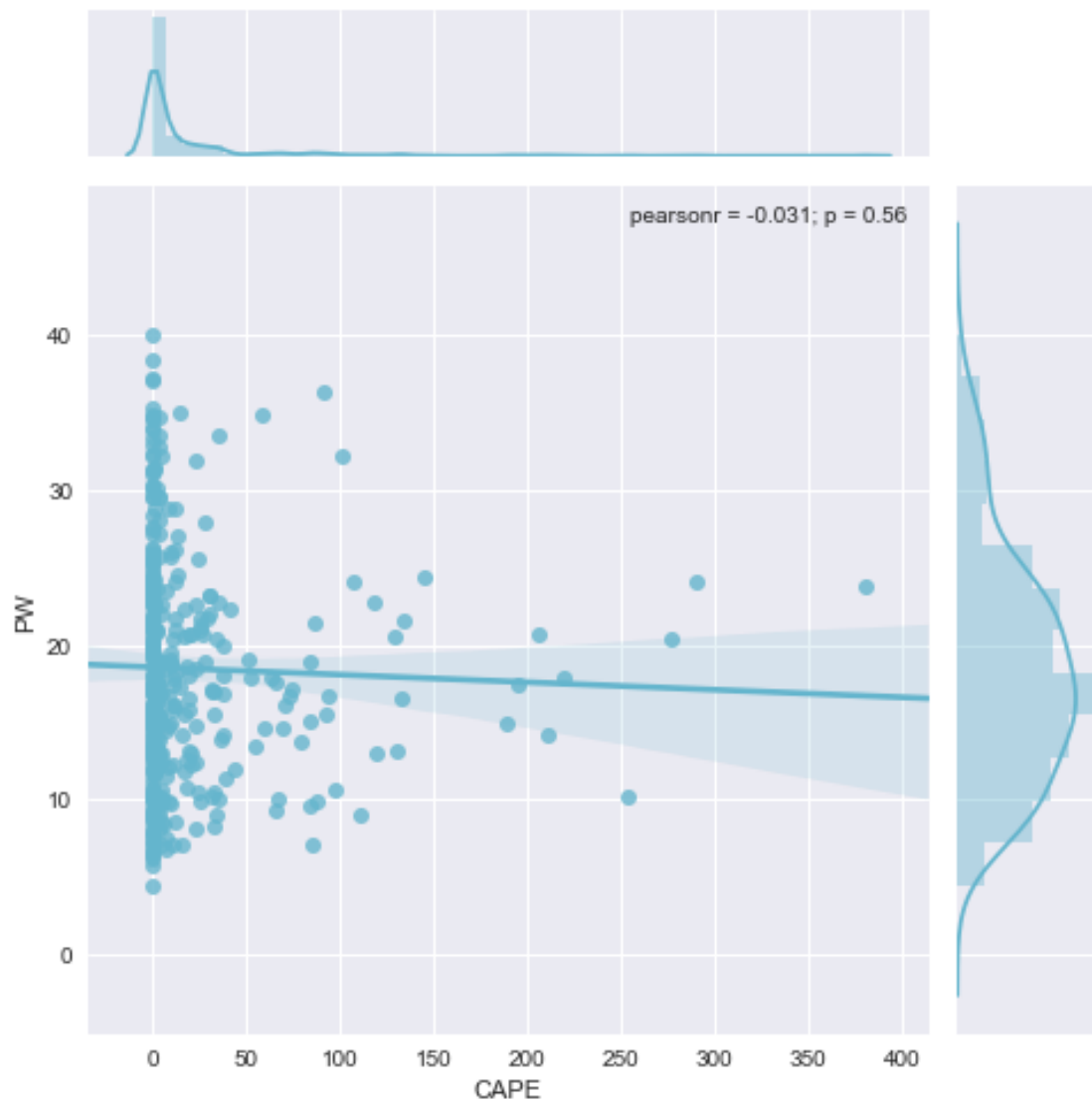
```
In [ ]: # 00Z
import seaborn as sns
sns.set(style="darkgrid", color_codes=True)

g = sns.jointplot("CAPE", "PW", data=df, kind="reg",
                  color="r", size=7)
plt.show(g)
```

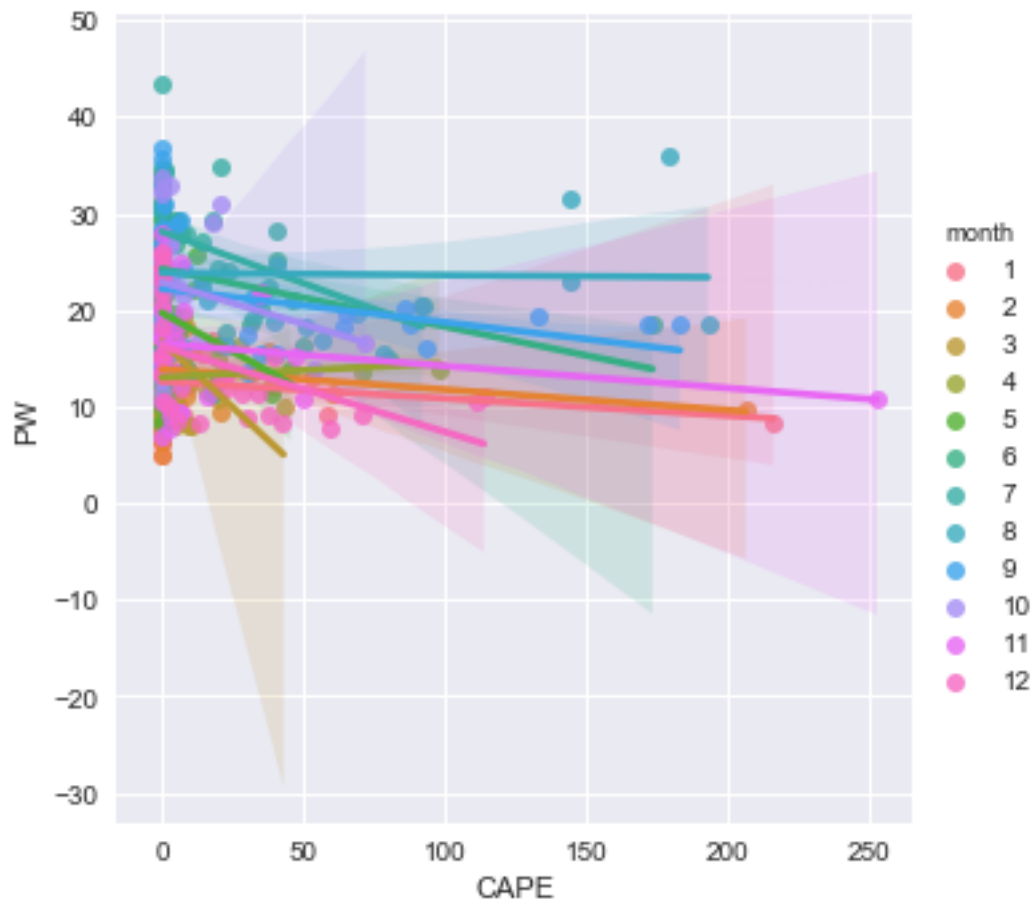


```
In [ ]: # 12Z
import seaborn as sns
sns.set(style="darkgrid", color_codes=True)

g = sns.jointplot("CAPE", "PW", data=df1, kind="reg",
                  color="c", size=7)
plt.show(g)
```



```
In [ ]: # 00Z
g = sns.lmplot(x="CAPE", y="PW", hue="month",
               truncate=True, size=5, data=df)
plt.show(g)
```



```
In [ ]: # 12Z
g = sns.lmplot(x="CAPE", y="PW", hue="month",
               truncate=True, size=5, data=df1)
plt.show(g)
```