

```
In [36]: import pandas as pd
```

```
In [38]: import matplotlib.pyplot as plt
```

```
In [39]: iris = pd.read_csv('file:///C:/Users/Timothy/OneDrive/Documents/Banjir1.csv')
```

```
In [40]: iris.head()
```

```
Out[40]:
```

	Tahun	Sumatra	Jawa	Bali & NTB	Sulawesi	Kalimantan	Maluku	Papua
0	2010	5	6	1	0	2	1	1
1	2011	4	4	3	0	2	0	1
2	2012	8	2	2	0	1	0	1
3	2013	3	6	1	0	0	1	0
4	2014	4	9	0	0	1	2	0

```
In [41]: iris.tail()
```

```
Out[41]:
```

	Tahun	Sumatra	Jawa	Bali & NTB	Sulawesi	Kalimantan	Maluku	Papua
5	2015	4	6	3	1	4	5	3
6	2016	5	3	3	0	0	3	1
7	2017	8	6	2	0	2	4	1
8	2018	3	8	7	0	5	1	3
9	2019	3	3	3	0	1	3	0

```
In [42]: iris.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 10 entries, 0 to 9
Data columns (total 8 columns):
Tahun      10 non-null int64
Sumatra    10 non-null int64
Jawa       10 non-null int64
Bali & NTB  10 non-null int64
Sulawesi   10 non-null int64
Kalimantan 10 non-null int64
Maluku     10 non-null int64
Papua      10 non-null int64
dtypes: int64(8)
memory usage: 768.0 bytes
```

```
In [43]: iris.describe()
```

```
Out[43]:
```

	Tahun	Sumatra	Jawa	Bali & NTB	Sulawesi	Kalimantan	Maluku	Papua
count	10.000000	10.000000	10.000000	10.000000	10.000000	10.000000	10.000000	10.000000
mean	2014.500000	4.700000	5.300000	2.500000	0.100000	1.800000	2.000000	1.100000
std	3.02765	1.888562	2.263233	1.900292	0.316228	1.619328	1.699673	1.100505
min	2010.000000	3.000000	2.000000	0.000000	0.000000	0.000000	0.000000	0.000000
25%	2012.250000	3.250000	3.250000	1.250000	0.000000	1.000000	1.000000	0.250000
50%	2014.500000	4.000000	6.000000	2.500000	0.000000	1.500000	1.500000	1.000000
75%	2016.750000	5.000000	6.000000	3.000000	0.000000	2.000000	3.000000	1.000000
max	2019.000000	8.000000	9.000000	7.000000	1.000000	5.000000	5.000000	3.000000

In [44]: iris.groupby('Sumatra').mean()

Out[44]:

	Tahun	Jawa	Bali & NTB	Sulawesi	Kalimantan	Maluku	Papua
Sumatra							
3	2016.666667	5.666667	3.666667	0.000000	2.000000	1.666667	1.000000
4	2013.333333	6.333333	2.000000	0.333333	2.333333	2.333333	1.333333
5	2013.000000	4.500000	2.000000	0.000000	1.000000	2.000000	1.000000
8	2014.500000	4.000000	2.000000	0.000000	1.500000	2.000000	1.000000

In [45]: iris.groupby('Jawa').mean()

Out[45]:

	Tahun	Sumatra	Bali & NTB	Sulawesi	Kalimantan	Maluku	Papua
Jawa							
2	2012.00	8.0	2.00	0.00	1.0	0.00	1.00
3	2017.50	4.0	3.00	0.00	0.5	3.00	0.50
4	2011.00	4.0	3.00	0.00	2.0	0.00	1.00
6	2013.75	5.0	1.75	0.25	2.0	2.75	1.25
8	2018.00	3.0	7.00	0.00	5.0	1.00	3.00
9	2014.00	4.0	0.00	0.00	1.0	2.00	0.00

In [46]: iris.groupby('Bali & NTB').mean()

Out[46]:

	Tahun	Sumatra	Jawa	Sulawesi	Kalimantan	Maluku	Papua
Bali & NTB							
0	2014.00	4.0	9.0	0.00	1.00	2.00	0.00
1	2011.50	4.0	6.0	0.00	1.00	1.00	0.50
2	2014.50	8.0	4.0	0.00	1.50	2.00	1.00
3	2015.25	4.0	4.0	0.25	1.75	2.75	1.25
7	2018.00	3.0	8.0	0.00	5.00	1.00	3.00

In [47]: iris.groupby('Sulawesi').mean()

Out[47]:

	Tahun	Sumatra	Jawa	Bali & NTB	Kalimantan	Maluku	Papua
Sulawesi							
0	2014.444444	4.777778	5.222222	2.444444	1.555556	1.666667	0.888889
1	2015.000000	4.000000	6.000000	3.000000	4.000000	5.000000	3.000000

In [48]: iris.groupby('Kalimantan').mean()

Out[48]:

	Tahun	Sumatra	Jawa	Bali & NTB	Sulawesi	Maluku	Papua
Kalimantan							
0	2014.500000	4.000000	4.500000	2.000000	0.0	2.000000	0.500000
1	2015.000000	5.000000	4.666667	1.666667	0.0	1.666667	0.333333
2	2012.666667	5.666667	5.333333	2.000000	0.0	1.666667	1.000000
4	2015.000000	4.000000	6.000000	3.000000	1.0	5.000000	3.000000
5	2018.000000	3.000000	8.000000	7.000000	0.0	1.000000	3.000000

In [49]: iris.groupby('Papua').mean()

Out[49]:

	Tahun	Sumatra	Jawa	Bali & NTB	Sulawesi	Kalimantan	Maluku
Papua							
0	2015.333333	3.333333	6.0	1.333333	0.0	0.666667	2.0
1	2013.200000	6.000000	4.2	2.200000	0.0	1.400000	1.6
3	2016.500000	3.500000	7.0	5.000000	0.5	4.500000	3.0

```
In [51]: iris.groupby('Tahun').mean()
```

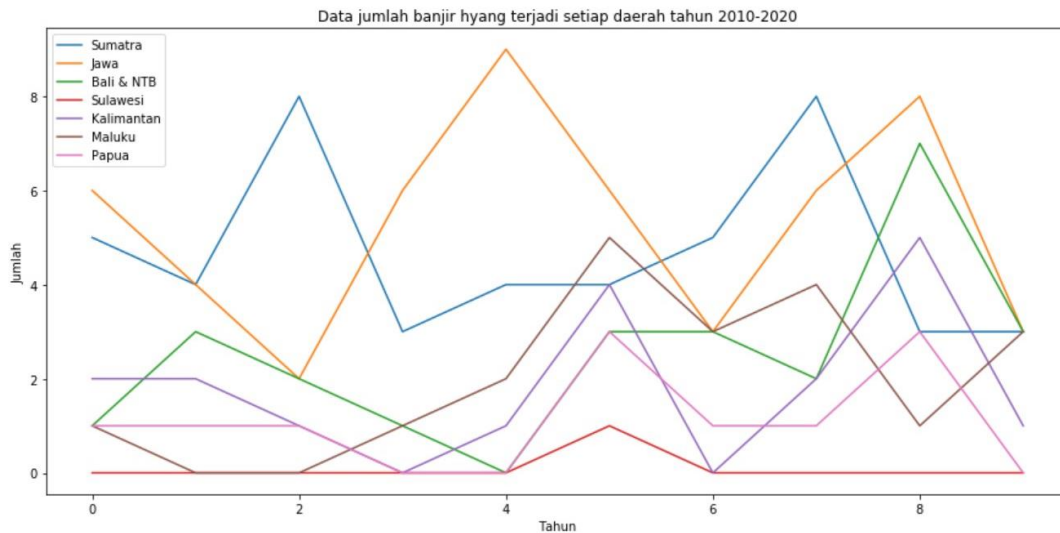
```
Out[51]:
```

	Sumatra	Jawa	Bali & NTB	Sulawesi	Kalimantan	Maluku	Papua
Tahun							
2010	5	6	1	0	2	1	1
2011	4	4	3	0	2	0	1
2012	8	2	2	0	1	0	1
2013	3	6	1	0	0	1	0
2014	4	9	0	0	1	2	0
2015	4	6	3	1	4	5	3
2016	5	3	3	0	0	3	1
2017	8	6	2	0	2	4	1
2018	3	8	7	0	5	1	3
2019	3	3	3	0	1	3	0

```
In [54]: plt.figure(figsize=(10,8))
plt.plot(iris['Sumatra'], label='Sumatra')
plt.plot(iris['Jawa'], label='Jawa')
plt.plot(iris['Bali & NTB'], label='Bali & NTB')
plt.plot(iris['Sulawesi'], label='Sulawesi')
plt.plot(iris['Kalimantan'], label='Kalimantan')
plt.plot(iris['Maluku'], label='Maluku')
plt.plot(iris['Papua'], label='Papua')

plt.xlabel('Tahun')

plt.ylabel('Jumlah')
plt.title('Data jumlah banjir hyang terjadi setiap daerah tahun 2010-2020')
plt.legend()
plt.show()
```



Based on the script image above it can be seen that the graph is the result of data processing of the number of floods that occurred in each region from 2010-2019. The reason I took the data is that I want to know the comparison of floods that occur in each region. In the script image above, there are several functions used, namely, the "head" function is inputted on the data to show the top 5 data, the tail function is inputted on that data to show the bottom 5 data, the "info" function is used on that data to show the index number along with its data type, the "describe" function to show statistical summaries such as averages, medians, and quartiles and much more in that column, the mean "groupby" function is inputted for grouping averages on the data inputted, plotting for graphs and also contained graphical interpretation of the data that I'm processing.

In making graphs it uses a function in the form of "matplotlib.pyplot" which is imported as "plt". "plt" here serves to plot a graph. The graph has 7 graph lines which are graphs of each region in the data. Based on these graphs it can be seen that the area of Java is an area that often occurs flooding and Sulawesi is the area that occurs most rarely.