```
In [1]: import pandas as pd
        import numpy as np
        import matplotlib.pyplot as plt
        import seaborn as sns
```

```
In [2]: data=pd.read_csv(r"C:\Users\user\Desktop\vicky\rainfall\Andaman.csv")
```

```
In [3]: data.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 110 entries, 0 to 109
Data columns (total 20 columns):
 #   Column       Non-Null Count  Dtype
---  ------       --------------  -----
 0   index        110 non-null    int64
 1   SUBDIVISION  110 non-null    object
 2   YEAR         110 non-null    int64
 3   JAN          110 non-null    float64
 4   FEB          110 non-null    float64
 5   MAR          108 non-null    float64
 6   APR          108 non-null    float64
 7   MAY          109 non-null    float64
 8   JUN          108 non-null    float64
 9   JUL          108 non-null    float64
 10  AUG          108 non-null    float64
 11  SEP          107 non-null    float64
 12  OCT          108 non-null    float64
 13  NOV          108 non-null    float64
 14  DEC          107 non-null    float64
 15  ANNUAL       104 non-null    float64
 16  Jan-Feb      110 non-null    float64
 17  Mar-May      107 non-null    float64
 18  Jun-Sep      107 non-null    float64
 19  Oct-Dec      107 non-null    float64
dtypes: float64(17), int64(2), object(1)
memory usage: 17.3+ KB
```

In [4]: `data.head()`

Out[4]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
0	0	ANDAMAN & NICOBAR ISLANDS	1901	49.2	87.1	29.2	2.3	528.8	517.5	365.1	481.1	332.6	388.5
1	1	ANDAMAN & NICOBAR ISLANDS	1902	0.0	159.8	12.2	0.0	446.1	537.1	228.9	753.7	666.2	197.2
2	2	ANDAMAN & NICOBAR ISLANDS	1903	12.7	144.0	0.0	1.0	235.1	479.9	728.4	326.7	339.0	181.2
3	3	ANDAMAN & NICOBAR ISLANDS	1904	9.4	14.7	0.0	202.4	304.5	495.1	502.0	160.1	820.4	222.2
4	4	ANDAMAN & NICOBAR ISLANDS	1905	1.3	0.0	3.3	26.9	279.5	628.7	368.7	330.5	297.0	260.7

In [5]: `data.shape`

Out[5]: (110, 20)

In [11]:
```python
new_data=data.fillna(value=1)
new_data
```

Out[11]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	C
0	0	ANDAMAN & NICOBAR ISLANDS	1901	49.2	87.1	29.2	2.3	528.8	517.5	365.1	481.1	332.6	3
1	1	ANDAMAN & NICOBAR ISLANDS	1902	0.0	159.8	12.2	0.0	446.1	537.1	228.9	753.7	666.2	1
2	2	ANDAMAN & NICOBAR ISLANDS	1903	12.7	144.0	0.0	1.0	235.1	479.9	728.4	326.7	339.0	1
3	3	ANDAMAN & NICOBAR ISLANDS	1904	9.4	14.7	0.0	202.4	304.5	495.1	502.0	160.1	820.4	2
4	4	ANDAMAN & NICOBAR ISLANDS	1905	1.3	0.0	3.3	26.9	279.5	628.7	368.7	330.5	297.0	2
...	...	...	...	...	...	...	...	...	...	...	...	...	
105	105	ANDAMAN & NICOBAR ISLANDS	2011	265.9	84.8	272.8	111.4	326.5	383.2	583.2	441.5	757.1	2
106	106	ANDAMAN & NICOBAR ISLANDS	2012	119.9	45.6	30.9	55.8	533.9	458.2	317.3	369.6	868.9	2
107	107	ANDAMAN & NICOBAR ISLANDS	2013	67.1	37.6	43.0	46.3	509.3	777.0	564.8	336.7	473.6	4
108	108	ANDAMAN & NICOBAR ISLANDS	2014	41.9	8.6	0.0	11.1	238.0	416.6	467.6	321.6	412.9	4
109	109	ANDAMAN & NICOBAR ISLANDS	2015	126.8	7.6	3.1	138.2	331.9	346.4	328.9	480.0	523.3	2

110 rows × 20 columns

In [12]:
```python
new_data.index
```

Out[12]:
```
RangeIndex(start=0, stop=110, step=1)
```

In [13]:
```python
new_data.columns
```

Out[13]:
```
Index(['index', 'SUBDIVISION', 'YEAR', 'JAN', 'FEB', 'MAR', 'APR', 'MAY',
       'JUN', 'JUL', 'AUG', 'SEP', 'OCT', 'NOV', 'DEC', 'ANNUAL', 'Jan-Feb',
       'Mar-May', 'Jun-Sep', 'Oct-Dec'],
      dtype='object')
```

In [14]:
```python
new_data.plot.line()
```

Out[14]: <AxesSubplot:>

In [15]:
```python
new_data.plot.bar()
```

Out[15]: <AxesSubplot:>

In [16]: `new_data.plot.area()`

Out[16]: `<AxesSubplot:>`

In [17]: `new_data.plot.hist()`

Out[17]: `<AxesSubplot:ylabel='Frequency'>`

In [19]:
```python
new_data.plot.pie(y='ANNUAL')
```

Out[19]: <AxesSubplot:ylabel='ANNUAL'>

In [21]:
```python
new_data.plot.scatter(x='YEAR',y='ANNUAL')
```

Out[21]: <AxesSubplot:xlabel='YEAR', ylabel='ANNUAL'>

In [22]: `sns.pairplot(new_data)`

Out[22]: `<seaborn.axisgrid.PairGrid at 0x1e6794cdac0>`

In [23]:
```python
sns.distplot(data['YEAR'])
```

C:\ProgramData\Anaconda3\lib\site-packages\seaborn\distributions.py:2557: Fut
ureWarning: `distplot` is a deprecated function and will be removed in a futu
re version. Please adapt your code to use either `displot` (a figure-level fu
nction with similar flexibility) or `histplot` (an axes-level function for hi
stograms).
  warnings.warn(msg, FutureWarning)

Out[23]: <AxesSubplot:xlabel='YEAR', ylabel='Density'>

In [24]:
```python
sns.heatmap(new_data.corr())
```

Out[24]: <AxesSubplot:>