

```
In [1]: import pandas as pd
```

```
In [2]: data=pd.read_csv("/home/placement/Downloads/arunachal.csv")
```

```
In [3]: data
```

```
Out[3]:
```

	Unnamed: 0	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	Jan-Feb	Mar-May
0	110	ARUNACHAL PRADESH	1916	48.1	69.8	71.1	316.1	424.6	1124.9	NaN	629.7	333.9	NaN	NaN	NaN	NaN	117.9	811.8
1	111	ARUNACHAL PRADESH	1917	21.4	164.5	NaN	269.6	107.9	823.8	909.1	628.4	411.5	199.3	63.5	0.0	NaN	185.9	NaN
2	112	ARUNACHAL PRADESH	1918	10.4	11.0	191.2	144.6	861.1	1609.9	1303.0	692.6	515.8	125.2	7.8	13.7	5486.3	21.4	1196.9
3	113	ARUNACHAL PRADESH	1919	34.5	67.8	28.5	256.9	420.6	973.6	999.0	286.7	628.7	948.3	40.7	8.6	4693.9	102.3	706.0
4	114	ARUNACHAL PRADESH	1920	14.0	196.3	605.6	364.7	173.6	840.6	535.4	896.5	376.7	103.3	0.0	0.0	4106.7	210.3	1143.9
...
86	196	ARUNACHAL PRADESH	2005	48.4	167.6	229.5	195.3	179.8	269.3	430.8	400.0	243.6	139.3	28.6	3.3	2335.5	216.0	604.6
87	197	ARUNACHAL PRADESH	2006	6.0	103.7	63.3	202.7	321.7	520.4	382.2	227.6	263.2	77.2	69.7	21.7	2259.6	109.7	587.7
88	198	ARUNACHAL PRADESH	2007	13.4	97.4	48.1	292.4	250.4	530.2	761.0	364.6	529.3	102.6	24.3	6.9	3020.7	110.8	590.9
89	199	ARUNACHAL PRADESH	2008	76.7	39.7	122.6	192.4	185.0	423.6	456.1	439.3	189.7	115.1	1.7	2.6	2244.4	116.4	499.9
90	200	ARUNACHAL PRADESH	2009	18.0	92.8	72.1	132.7	189.9	259.1	329.9	370.3	152.5	82.9	33.9	15.9	1749.9	110.8	394.7

91 rows × 20 columns



```
In [4]: list(data)
```

```
Out[4]: ['Unnamed: 0',  
         'SUBDIVISION',  
         'YEAR',  
         'JAN',  
         'FEB',  
         'MAR',  
         'APR',  
         'MAY',  
         'JUN',  
         'JUL',  
         'AUG',  
         'SEP',  
         'OCT',  
         'NOV',  
         'DEC',  
         'ANNUAL',  
         'Jan-Feb',  
         'Mar-May',  
         'Jun-Sep',  
         'Oct-Dec']
```

```
In [7]: data1=data.drop(['Unnamed: 0'],axis=1)
```

```
In [8]: data1.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 91 entries, 0 to 90
Data columns (total 19 columns):
#   Column          Non-Null Count  Dtype
---  -
0   SUBDIVISION     91 non-null    object
1   YEAR            91 non-null    int64
2   JAN             90 non-null    float64
3   FEB             90 non-null    float64
4   MAR             89 non-null    float64
5   APR             91 non-null    float64
6   MAY             91 non-null    float64
7   JUN             90 non-null    float64
8   JUL             90 non-null    float64
9   AUG             91 non-null    float64
10  SEP             91 non-null    float64
11  OCT             89 non-null    float64
12  NOV             89 non-null    float64
13  DEC             89 non-null    float64
14  ANNUAL          85 non-null    float64
15  Jan-Feb        90 non-null    float64
16  Mar-May        89 non-null    float64
17  Jun-Sep        89 non-null    float64
18  Oct-Dec        88 non-null    float64
dtypes: float64(17), int64(1), object(1)
memory usage: 13.6+ KB
```

```
In [13]: data.isna().sum()
```

```
Out[13]: Unnamed: 0      0
SUBDIVISION    0
YEAR           0
JAN            1
FEB            1
MAR            2
APR            0
MAY            0
JUN            1
JUL            1
AUG            0
SEP            0
OCT            2
NOV            2
DEC            2
ANNUAL         6
Jan-Feb        1
Mar-May        2
Jun-Sep        2
Oct-Dec        3
dtype: int64
```

```
In [14]: data2=data1.fillna(data.mean())
```

```
/tmp/ipykernel_14797/3105188393.py:1: FutureWarning: The default value of numeric_only in DataFrame.mean is deprecated. In a future version, it will default to False. In addition, specifying 'numeric_only=None' is deprecated. Select only valid columns or specify the value of numeric_only to silence this warning.
  data2=data1.fillna(data.mean())
```

```
In [15]: data2.isna().sum()
```

```
Out[15]: SUBDIVISION    0  
        YEAR           0  
        JAN            0  
        FEB            0  
        MAR            0  
        APR            0  
        MAY            0  
        JUN            0  
        JUL            0  
        AUG            0  
        SEP            0  
        OCT            0  
        NOV            0  
        DEC            0  
        ANNUAL         0  
        Jan-Feb        0  
        Mar-May        0  
        Jun-Sep        0  
        Oct-Dec        0  
        dtype: int64
```

In [16]: data2.head()

Out[16]:

	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
0	ARUNACHAL PRADESH	1916	48.1	69.8	71.100000	316.1	424.6	1124.9	711.963333	629.7	333.9	200.37191	36.257303	24.91573	3475.443529
1	ARUNACHAL PRADESH	1917	21.4	164.5	154.446067	269.6	107.9	823.8	909.100000	628.4	411.5	199.30000	63.500000	0.00000	3475.443529
2	ARUNACHAL PRADESH	1918	10.4	11.0	191.200000	144.6	861.1	1609.9	1303.000000	692.6	515.8	125.20000	7.800000	13.70000	5486.300000
3	ARUNACHAL PRADESH	1919	34.5	67.8	28.500000	256.9	420.6	973.6	999.000000	286.7	628.7	948.30000	40.700000	8.60000	4693.900000
4	ARUNACHAL PRADESH	1920	14.0	196.3	605.600000	364.7	173.6	840.6	535.400000	896.5	376.7	103.30000	0.000000	0.00000	4106.700000

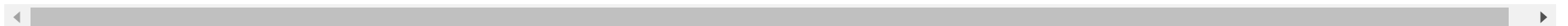
In [17]: data3=data1.fillna(data.mode())

In [18]: data3

Out[18]:

	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	Jan-Feb	Mar-May	Jun-Sep	Oct-Dec
0	ARUNACHAL PRADESH	1916	48.1	69.8	71.1	316.1	424.6	1124.9	593.0	629.7	333.9	58.5	7.8	0.0	1668.5	117.9	811.8	1111.8	130.
1	ARUNACHAL PRADESH	1917	21.4	164.5	32.9	269.6	107.9	823.8	909.1	628.4	411.5	199.3	63.5	0.0	1749.9	185.9	379.7	2772.8	262.
2	ARUNACHAL PRADESH	1918	10.4	11.0	191.2	144.6	861.1	1609.9	1303.0	692.6	515.8	125.2	7.8	13.7	5486.3	21.4	1196.9	4121.3	146.
3	ARUNACHAL PRADESH	1919	34.5	67.8	28.5	256.9	420.6	973.6	999.0	286.7	628.7	948.3	40.7	8.6	4693.9	102.3	706.0	2888.0	997.
4	ARUNACHAL PRADESH	1920	14.0	196.3	605.6	364.7	173.6	840.6	535.4	896.5	376.7	103.3	0.0	0.0	4106.7	210.3	1143.9	2649.2	103.
...
86	ARUNACHAL PRADESH	2005	48.4	167.6	229.5	195.3	179.8	269.3	430.8	400.0	243.6	139.3	28.6	3.3	2335.5	216.0	604.6	1343.7	171.
87	ARUNACHAL PRADESH	2006	6.0	103.7	63.3	202.7	321.7	520.4	382.2	227.6	263.2	77.2	69.7	21.7	2259.6	109.7	587.7	1393.5	168.
88	ARUNACHAL PRADESH	2007	13.4	97.4	48.1	292.4	250.4	530.2	761.0	364.6	529.3	102.6	24.3	6.9	3020.7	110.8	590.9	2185.1	133.
89	ARUNACHAL PRADESH	2008	76.7	39.7	122.6	192.4	185.0	423.6	456.1	439.3	189.7	115.1	1.7	2.6	2244.4	116.4	499.9	1508.7	119.
90	ARUNACHAL PRADESH	2009	18.0	92.8	72.1	132.7	189.9	259.1	329.9	370.3	152.5	82.9	33.9	15.9	1749.9	110.8	394.7	1111.8	132.

91 rows × 19 columns



In []:

