

```
In [1]: import pandas as pd
data=pd.read_csv("/home/placement/Downloads/arunachal.csv")
```

```
In [2]: data.describe()
```

```
Out[2]:
```

	Unnamed: 0	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
<b>count</b>	91.00000	91.000000	90.000000	90.000000	89.000000	91.000000	91.000000	90.000000	90.000000	91.000000	91.000000
<b>mean</b>	155.00000	1962.747253	48.598889	93.966667	154.446067	262.990110	364.651648	659.556667	711.963333	502.163736	433.273626
<b>std</b>	26.41338	27.695003	34.687078	46.258375	87.918484	113.395773	181.095447	311.642230	356.372598	275.716730	204.991358
<b>min</b>	110.00000	1916.000000	1.800000	6.100000	28.500000	94.700000	101.800000	239.400000	233.000000	172.400000	152.500000
<b>25%</b>	132.50000	1938.500000	20.075000	65.625000	101.700000	180.600000	237.150000	425.675000	442.150000	301.100000	282.150000
<b>50%</b>	155.00000	1964.000000	45.400000	87.600000	141.700000	245.400000	314.600000	545.750000	613.000000	411.600000	384.300000
<b>75%</b>	177.50000	1986.500000	65.150000	120.400000	189.600000	335.300000	447.050000	840.400000	922.075000	669.200000	521.150000
<b>max</b>	200.00000	2009.000000	164.500000	208.500000	605.600000	595.100000	1168.600000	1609.900000	2362.800000	1664.600000	1222.000000

In [3]: data.head()

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

In [4]: data.info()

```

2  YEAR                91 non-null    int64
3  JAN                 90 non-null    float64
4  FEB                 90 non-null    float64
5  MAR                 89 non-null    float64
6  APR                 91 non-null    float64
7  MAY                 91 non-null    float64
8  JUN                 90 non-null    float64
9  JUL                 90 non-null    float64
10 AUG                 91 non-null    float64
11 SEP                 91 non-null    float64
12 OCT                 89 non-null    float64
13 NOV                 89 non-null    float64
14 DEC                 89 non-null    float64
15 ANNUAL              85 non-null    float64
16 Jan-Feb             90 non-null    float64
17 Mar-May             89 non-null    float64
18 Jun-Sep             89 non-null    float64
19 Oct-Dec             88 non-null    float64
dtypes: float64(17), int64(2), object(1)
memory usage: 14.3+ KB

```

```
In [5]: data.shape
```

```
Out[5]: (91, 20)
```

```
In [6]: list(data)
```

```
Out[6]: ['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

Out[8]:

	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	NaN	629.7	333.9	NaN	NaN	NaN	NaN	117.9	811.8	NaN	NaN
1	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	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 [9]: data1.isna().sum()
```

```
Out[9]: 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 [10]: data1=data1.fillna(data.mode())
```

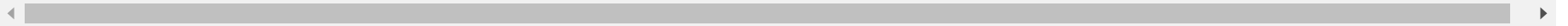
```
In [11]: data1.isna().sum()
```

```
Out[11]: SUBDIVISION      0  
        YEAR            0  
        JAN             1  
        FEB             1  
        MAR             0  
        APR             0  
        MAY             0  
        JUN             0  
        JUL             0  
        AUG             0  
        SEP             0  
        OCT             1  
        NOV             1  
        DEC             1  
        ANNUAL          0  
        Jan-Feb         1  
        Mar-May         0  
        Jun-Sep         0  
        Oct-Dec         2  
        dtype: int64
```

In [12]: `data1.head(10)`

Out[12]:

	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.
5	ARUNACHAL PRADESH	1921	78.9	54.3	180.3	358.0	598.0	1233.2	1433.0	885.9	603.4	246.3	4.6	15.5	5691.4	133.2	1136.3	4155.5	266.
6	ARUNACHAL PRADESH	1922	50.7	59.4	170.4	299.5	350.5	1109.3	918.7	488.3	207.6	483.5	30.3	19.0	4187.2	110.1	820.4	2723.9	532.
7	ARUNACHAL PRADESH	1923	9.4	160.8	34.0	240.9	445.4	408.6	1278.5	251.3	617.3	50.1	8.4	2.8	3507.5	170.2	720.3	2555.7	61.
8	ARUNACHAL PRADESH	1924	85.7	45.1	74.1	162.4	515.7	1165.0	942.7	713.8	410.8	303.3	31.9	0.0	4450.5	130.8	752.2	3232.3	335.
9	ARUNACHAL PRADESH	1925	80.6	114.0	143.3	223.0	587.2	611.6	611.0	684.7	1222.0	153.2	5.1	4.1	4439.8	194.6	953.5	3129.3	162.



In [13]: `data1=data1.fillna(data.mode())`

In [14]: data1.head(10)

Out[14]:

	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.
5	ARUNACHAL PRADESH	1921	78.9	54.3	180.3	358.0	598.0	1233.2	1433.0	885.9	603.4	246.3	4.6	15.5	5691.4	133.2	1136.3	4155.5	266.
6	ARUNACHAL PRADESH	1922	50.7	59.4	170.4	299.5	350.5	1109.3	918.7	488.3	207.6	483.5	30.3	19.0	4187.2	110.1	820.4	2723.9	532.
7	ARUNACHAL PRADESH	1923	9.4	160.8	34.0	240.9	445.4	408.6	1278.5	251.3	617.3	50.1	8.4	2.8	3507.5	170.2	720.3	2555.7	61.
8	ARUNACHAL PRADESH	1924	85.7	45.1	74.1	162.4	515.7	1165.0	942.7	713.8	410.8	303.3	31.9	0.0	4450.5	130.8	752.2	3232.3	335.
9	ARUNACHAL PRADESH	1925	80.6	114.0	143.3	223.0	587.2	611.6	611.0	684.7	1222.0	153.2	5.1	4.1	4439.8	194.6	953.5	3129.3	162.



In [ ]:



