

# Vijay(Book27) 04/08/2023

```
In [1]: 1 import numpy as np
2 import pandas as pd
3 import matplotlib.pyplot as plt
4 import seaborn as sns
5 from sklearn.linear_model import LogisticRegression
6 from sklearn.preprocessing import StandardScaler
7 import re
8 from sklearn.datasets import load_digits
9 from sklearn.model_selection import train_test_split
```

```
In [2]: 1 a=pd.read_csv(r"C:\Users\user\Downloads\Book27.csv")
2 a
```

Out[2]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
0	110	ARUNACHAL PRADESH	1916	48.1	69.8	71.1	316.1	424.6	1124.9	NaN	629.7	333.9	
1	111	ARUNACHAL PRADESH	1917	21.4	164.5	NaN	269.6	107.9	823.8	909.1	628.4	411.5	1
2	112	ARUNACHAL PRADESH	1918	10.4	11.0	191.2	144.6	861.1	1609.9	1303.0	692.6	515.8	1
3	113	ARUNACHAL PRADESH	1919	34.5	67.8	28.5	256.9	420.6	973.6	999.0	286.7	628.7	9
4	114	ARUNACHAL PRADESH	1920	14.0	196.3	605.6	364.7	173.6	840.6	535.4	896.5	376.7	1
...	...	...	...	...	...	...	...	...	...	...	...	...	
92	202	ARUNACHAL PRADESH	2011	40.0	51.3	174.5	240.8	219.6	288.4	531.4	277.6	286.7	
93	203	ARUNACHAL PRADESH	2012	57.8	35.8	134.2	403.4	187.4	645.8	638.9	316.0	724.9	2
94	204	ARUNACHAL PRADESH	2013	18.5	40.5	115.1	175.1	335.8	290.0	329.6	230.2	316.1	1
95	205	ARUNACHAL PRADESH	2014	19.0	101.9	80.3	86.7	299.0	415.8	392.4	599.6	343.0	
96	206	ARUNACHAL PRADESH	2015	30.8	47.5	97.5	287.1	238.9	637.9	329.3	595.5	374.2	

97 rows × 20 columns



In [3]: 1 a.info()

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 97 entries, 0 to 96
Data columns (total 20 columns):
#   Column                Non-Null Count  Dtype
---  -
0   index                 97 non-null    int64
1   SUBDIVISION           97 non-null    object
2   YEAR                  97 non-null    int64
3   JAN                   96 non-null    float64
4   FEB                   96 non-null    float64
5   MAR                   95 non-null    float64
6   APR                   97 non-null    float64
7   MAY                   97 non-null    float64
8   JUN                   96 non-null    float64
9   JUL                   96 non-null    float64
10  AUG                   97 non-null    float64
11  SEP                   97 non-null    float64
12  OCT                   95 non-null    float64
13  NOV                   95 non-null    float64
14  DEC                   95 non-null    float64
15  ANNUAL                91 non-null    float64
16  Jan-Feb               96 non-null    float64
17  Mar-May               95 non-null    float64
18  Jun-Sep               95 non-null    float64
19  Oct-Dec               94 non-null    float64
dtypes: float64(17), int64(2), object(1)
memory usage: 15.3+ KB
```

In [4]:

```
1 b=a.fillna(method='ffill')
2 b
```

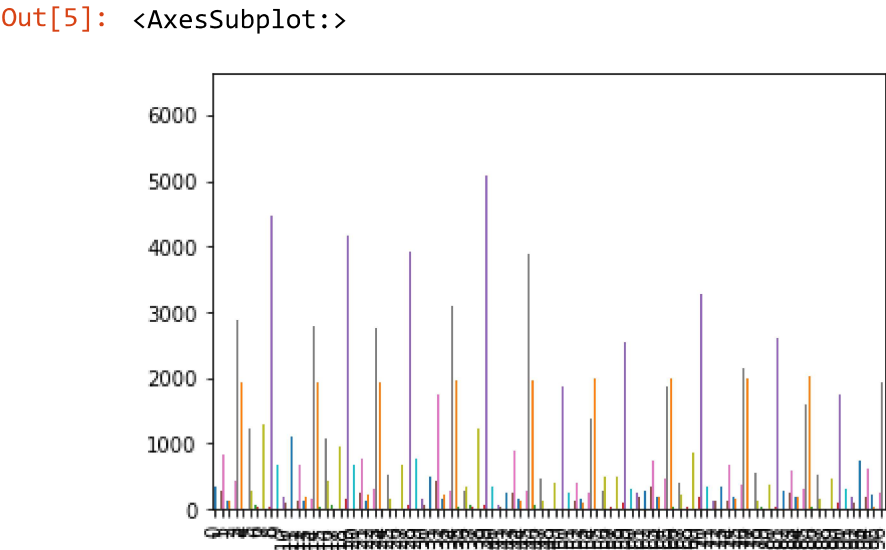
Out[4]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
0	110	ARUNACHAL PRADESH	1916	48.1	69.8	71.1	316.1	424.6	1124.9	NaN	629.7	333.9	
1	111	ARUNACHAL PRADESH	1917	21.4	164.5	71.1	269.6	107.9	823.8	909.1	628.4	411.5	1
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3	113	ARUNACHAL PRADESH	1919	34.5	67.8	28.5	256.9	420.6	973.6	999.0	286.7	628.7	9
4	114	ARUNACHAL PRADESH	1920	14.0	196.3	605.6	364.7	173.6	840.6	535.4	896.5	376.7	1
...	...	...	...	...	...	...	...	...	...	...	...	...	
92	202	ARUNACHAL PRADESH	2011	40.0	51.3	174.5	240.8	219.6	288.4	531.4	277.6	286.7	
93	203	ARUNACHAL PRADESH	2012	57.8	35.8	134.2	403.4	187.4	645.8	638.9	316.0	724.9	2
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97 rows × 20 columns

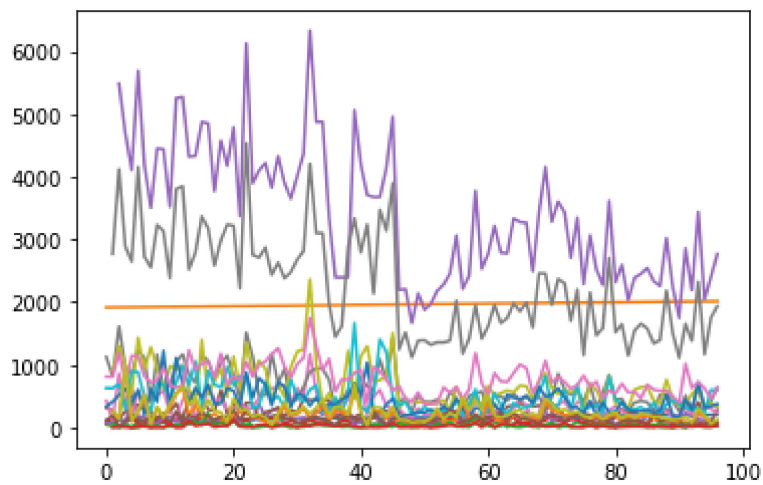
In [5]:

```
1 b.plot.bar(legend=None)
```



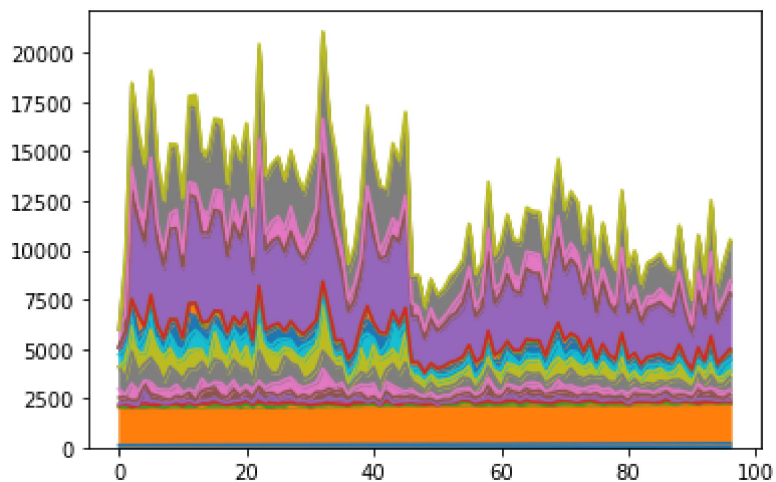
```
In [6]: 1 b.plot.line(legend=None)
```

```
Out[6]: <AxesSubplot:>
```



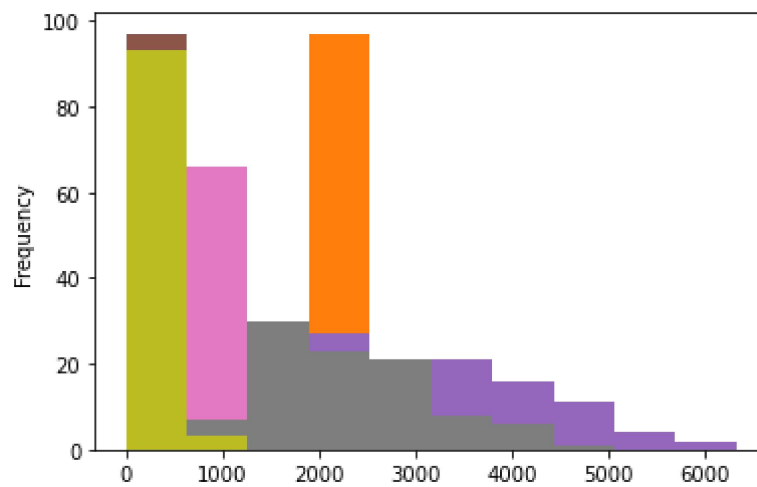
```
In [7]: 1 b.plot.area(legend=None)
```

```
Out[7]: <AxesSubplot:>
```



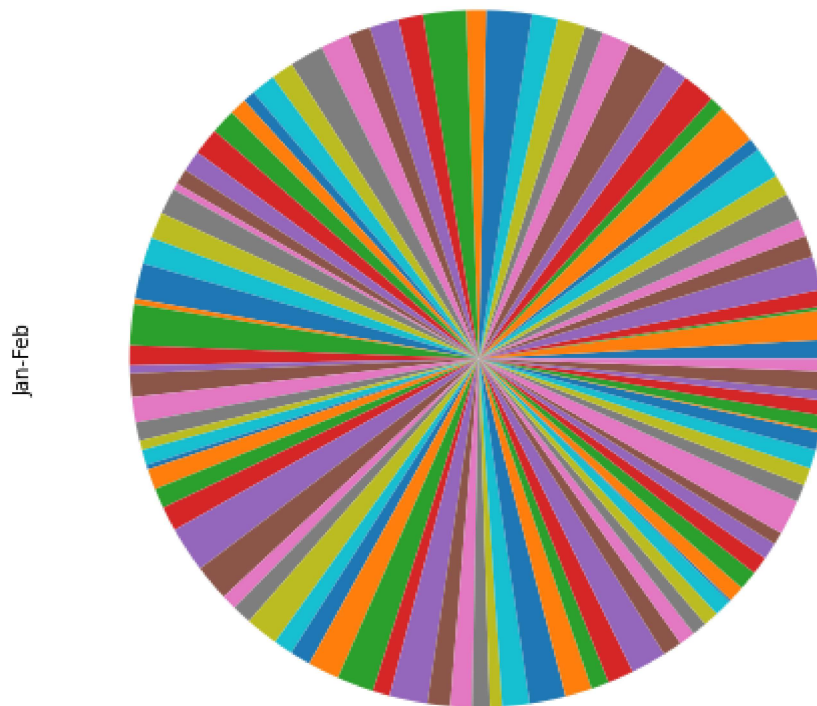
```
In [8]: 1 b.plot.hist(legend=None)
```

```
Out[8]: <AxesSubplot:ylabel='Frequency'>
```



```
In [10]: 1 b.plot.pie(y='Jan-Feb',figsize=(8,8),labels=None,legend=None)
```

```
Out[10]: <AxesSubplot:ylabel='Jan-Feb'>
```



```
In [ ]: 1
```

