Vijay(Book1) 04/08/2023

In [1]:
```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
from sklearn.linear_model import LogisticRegression
from sklearn.preprocessing import StandardScaler
import re
from sklearn.datasets import load_digits
from sklearn.model_selection import train_test_split
```

In [3]:
```
a=pd.read_csv(r"C:\Users\user\Downloads\Book1.csv")
a
```

Out[3]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
0	4002	LAKSHADWEEP	1901	22.6	86.4	114.8	263.8	37.3	459.0	0.0	0.0	46.7	1
1	4003	LAKSHADWEEP	1902	99.3	9.6	32.6	40.4	179.1	374.2	413.3	170.0	214.3	3
2	4004	LAKSHADWEEP	1903	63.5	95.0	0.0	29.5	144.1	212.4	261.8	202.0	292.1	
3	4005	LAKSHADWEEP	1904	0.0	0.0	13.5	13.2	143.3	261.3	256.0	38.9	219.9	1
4	4006	LAKSHADWEEP	1905	62.4	0.0	0.0	0.0	166.7	400.7	68.7	377.5	107.5	2
...	...	...	...	...	...	...	...	...	...	...	...	...	
109	4111	LAKSHADWEEP	2011	5.1	2.8	3.1	85.9	107.2	153.6	350.2	254.0	255.2	1
110	4112	LAKSHADWEEP	2012	19.2	0.1	1.6	76.8	21.2	327.0	231.5	381.2	179.8	1
111	4113	LAKSHADWEEP	2013	26.2	34.4	37.5	5.3	88.3	426.2	296.4	154.4	180.0	
112	4114	LAKSHADWEEP	2014	53.2	16.1	4.4	14.9	57.4	244.1	116.1	466.1	132.2	1
113	4115	LAKSHADWEEP	2015	2.2	0.5	3.7	87.1	133.1	296.6	257.5	146.4	160.4	1

114 rows × 20 columns

In [4]:
```
1 a.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 114 entries, 0 to 113
Data columns (total 20 columns):
 #   Column       Non-Null Count  Dtype
---  ------       --------------  -----
 0   index        114 non-null    int64
 1   SUBDIVISION  114 non-null    object
 2   YEAR         114 non-null    int64
 3   JAN          112 non-null    float64
 4   FEB          113 non-null    float64
 5   MAR          112 non-null    float64
 6   APR          112 non-null    float64
 7   MAY          112 non-null    float64
 8   JUN          112 non-null    float64
 9   JUL          111 non-null    float64
 10  AUG          112 non-null    float64
 11  SEP          111 non-null    float64
 12  OCT          111 non-null    float64
 13  NOV          108 non-null    float64
 14  DEC          110 non-null    float64
 15  ANNUAL       103 non-null    float64
 16  Jan-Feb      111 non-null    float64
 17  Mar-May      110 non-null    float64
 18  Jun-Sep      110 non-null    float64
 19  Oct-Dec      108 non-null    float64
dtypes: float64(17), int64(2), object(1)
memory usage: 17.9+ KB
```

In [5]:
```
1 b=a.fillna(method='ffill')
2 b
```

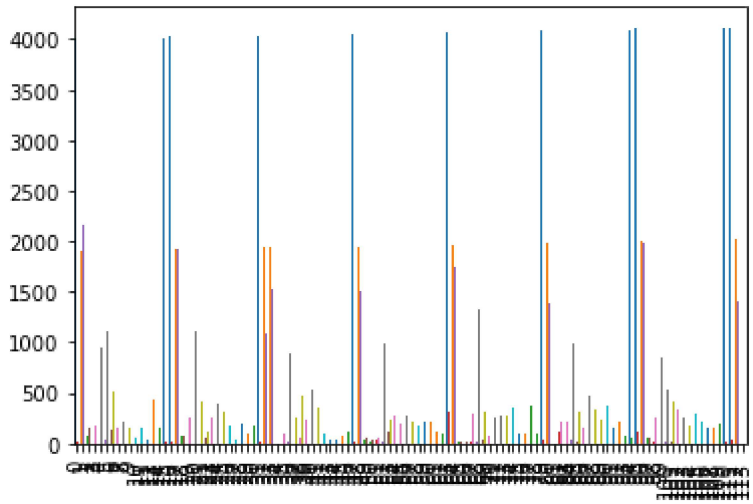
Out[5]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
0	4002	LAKSHADWEEP	1901	22.6	86.4	114.8	263.8	37.3	459.0	0.0	0.0	46.7	1
1	4003	LAKSHADWEEP	1902	99.3	9.6	32.6	40.4	179.1	374.2	413.3	170.0	214.3	3
2	4004	LAKSHADWEEP	1903	63.5	95.0	0.0	29.5	144.1	212.4	261.8	202.0	292.1	
3	4005	LAKSHADWEEP	1904	0.0	0.0	13.5	13.2	143.3	261.3	256.0	38.9	219.9	1
4	4006	LAKSHADWEEP	1905	62.4	0.0	0.0	0.0	166.7	400.7	68.7	377.5	107.5	2
...	...	...	...	...	...	...	...	...	...	...	...	...	
109	4111	LAKSHADWEEP	2011	5.1	2.8	3.1	85.9	107.2	153.6	350.2	254.0	255.2	1
110	4112	LAKSHADWEEP	2012	19.2	0.1	1.6	76.8	21.2	327.0	231.5	381.2	179.8	1
111	4113	LAKSHADWEEP	2013	26.2	34.4	37.5	5.3	88.3	426.2	296.4	154.4	180.0	
112	4114	LAKSHADWEEP	2014	53.2	16.1	4.4	14.9	57.4	244.1	116.1	466.1	132.2	1
113	4115	LAKSHADWEEP	2015	2.2	0.5	3.7	87.1	133.1	296.6	257.5	146.4	160.4	1

114 rows × 20 columns

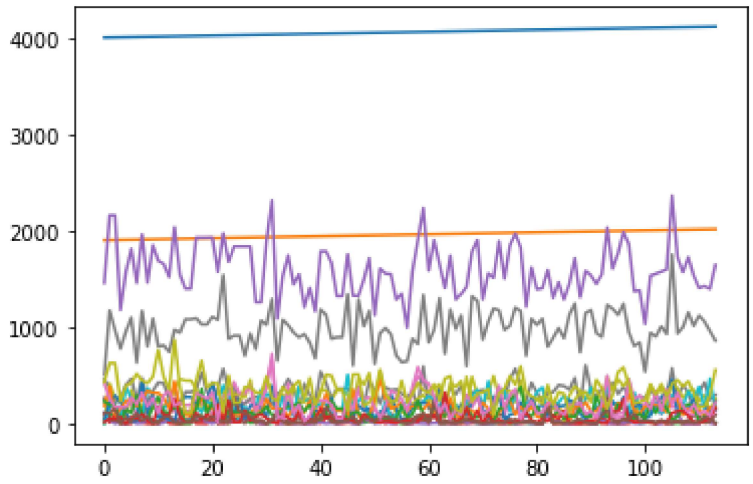
In [6]:
```
1 b.plot.bar(legend=None)
```

Out[6]: <AxesSubplot:>



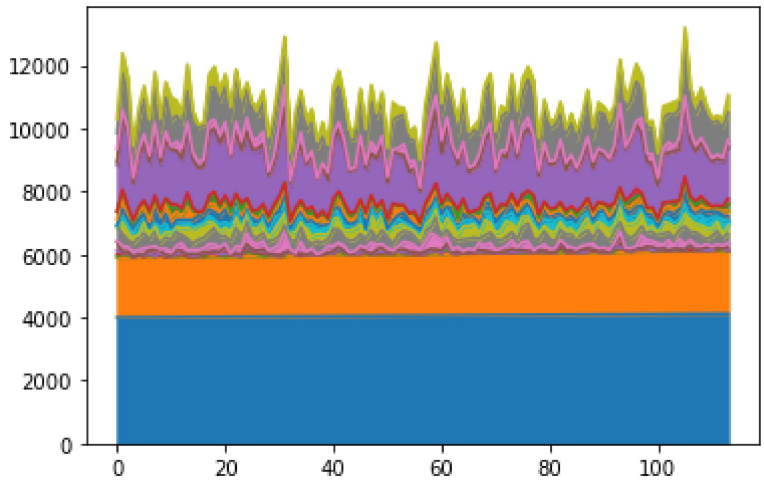
In [7]:
```
1 b.plot.line(legend=None)
```

Out[7]: <AxesSubplot:>



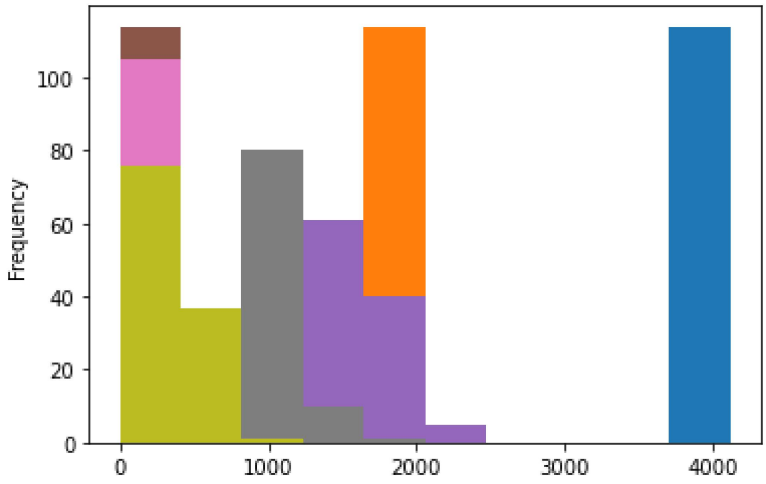
In [8]:
```
1 b.plot.area(legend=None)
```

Out[8]: <AxesSubplot:>



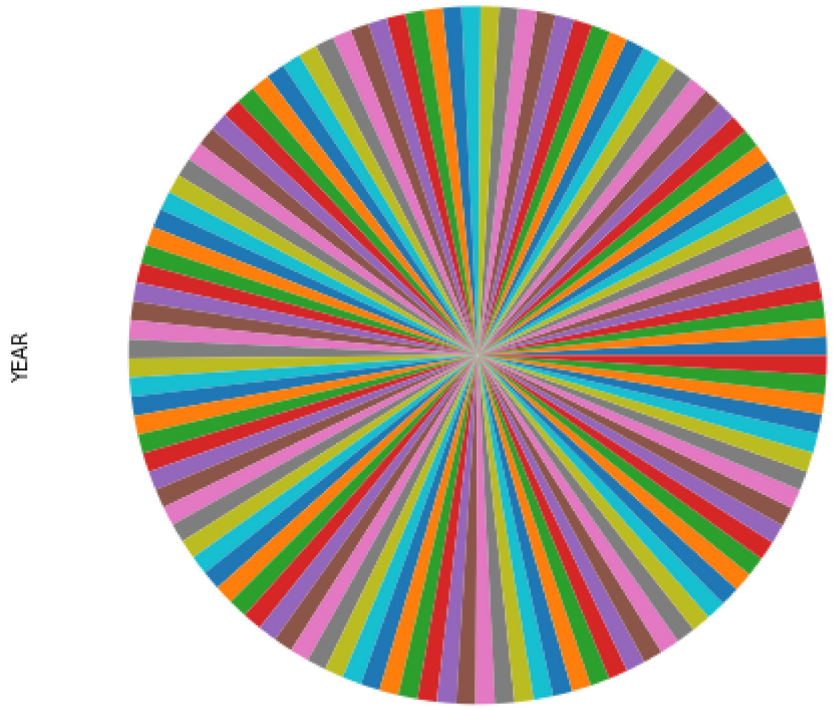
In [9]:
```
1 b.plot.hist(legend=None)
```

Out[9]: <AxesSubplot:ylabel='Frequency'>



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

Out[10]: <AxesSubplot:ylabel='YEAR'>



In [ ]:
```
1
```