

```
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
```

```
In [2]: a=pd.read_csv(r"C:\Users\user\Downloads\FP2_RainFall\rainfall in india 1901-2014.csv")
```

Out[2]:

		index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
0	0	0	ANDAMAN & NICOBAR ISLANDS	1901	49.2	87.1	29.2	2.3	528.8	517.5	365.1	481.1	332.6
1	1	1	ANDAMAN & NICOBAR ISLANDS	1902	0.0	159.8	12.2	0.0	446.1	537.1	228.9	753.7	666.2
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
3	3	3	ANDAMAN & NICOBAR ISLANDS	1904	9.4	14.7	0.0	202.4	304.5	495.1	502.0	160.1	820.4
4	4	4	ANDAMAN & NICOBAR ISLANDS	1905	1.3	0.0	3.3	26.9	279.5	628.7	368.7	330.5	297.0
...
4111	4111	LAKSHADWEEP	LAKSHADWEEP	2011	5.1	2.8	3.1	85.9	107.2	153.6	350.2	254.0	255.2
4112	4112	LAKSHADWEEP	LAKSHADWEEP	2012	19.2	0.1	1.6	76.8	21.2	327.0	231.5	381.2	179.8
4113	4113	LAKSHADWEEP	LAKSHADWEEP	2013	26.2	34.4	37.5	5.3	88.3	426.2	296.4	154.4	180.0
4114	4114	LAKSHADWEEP	LAKSHADWEEP	2014	53.2	16.1	4.4	14.9	57.4	244.1	116.1	466.1	132.2
4115	4115	LAKSHADWEEP	LAKSHADWEEP	2015	2.2	0.5	3.7	87.1	133.1	296.6	257.5	146.4	160.4

4116 rows × 20 columns

In [3]:

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 4116 entries, 0 to 4115
Data columns (total 20 columns):
 #   Column      Non-Null Count  Dtype  
--- 
 0   index       4116 non-null    int64  
 1   SUBDIVISION 4116 non-null    object  
 2   YEAR        4116 non-null    int64  
 3   JAN         4112 non-null    float64 
 4   FEB         4113 non-null    float64 
 5   MAR         4110 non-null    float64 
 6   APR         4112 non-null    float64 
 7   MAY         4113 non-null    float64 
 8   JUN         4111 non-null    float64 
 9   JUL         4109 non-null    float64 
 10  AUG         4112 non-null    float64 
 11  SEP         4110 non-null    float64 
 12  OCT         4109 non-null    float64 
 13  NOV         4105 non-null    float64 
 14  DEC         4106 non-null    float64 
 15  ANNUAL      4090 non-null    float64 
 16  Jan-Feb     4110 non-null    float64 
 17  Mar-May     4107 non-null    float64 
 18  Jun-Sep     4106 non-null    float64 
 19  Oct-Dec     4103 non-null    float64 
dtypes: float64(17), int64(2), object(1)
memory usage: 643.2+ KB
```

In [4]:

```
Out[4]: 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')
```

WEST MADHYA PRADESH

In [278]: `b=a.head(2162)`

Out[278]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
0	0	ANDAMAN & NICOBAR ISLANDS	1901	49.2	87.1	29.2	2.3	528.8	517.5	365.1	481.1	332.6	311.1	250.0	200.0
1	1	ANDAMAN & NICOBAR ISLANDS	1902	0.0	159.8	12.2	0.0	446.1	537.1	228.9	753.7	666.2	119.1	119.1	119.1
2	2	ANDAMAN & NICOBAR ISLANDS	1903	12.7	144.0	0.0	1.0	235.1	479.9	728.4	326.7	339.0	119.1	119.1	119.1
3	3	ANDAMAN & NICOBAR ISLANDS	1904	9.4	14.7	0.0	202.4	304.5	495.1	502.0	160.1	820.4	210.0	210.0	210.0
4	4	ANDAMAN & NICOBAR ISLANDS	1905	1.3	0.0	3.3	26.9	279.5	628.7	368.7	330.5	297.0	210.0	210.0	210.0
...
2157	2157	WEST MADHYA PRADESH	2011	0.0	1.7	0.1	1.8	3.6	241.5	306.7	343.3	165.0	165.0	165.0	165.0
2158	2158	WEST MADHYA PRADESH	2012	6.2	0.0	0.0	0.9	3.1	48.2	439.2	341.2	194.3	194.3	194.3	194.3
2159	2159	WEST MADHYA PRADESH	2013	1.7	31.1	8.5	2.8	0.4	263.7	485.1	432.6	98.9	98.9	98.9	98.9
2160	2160	WEST MADHYA PRADESH	2014	25.6	34.4	4.6	1.4	1.4	30.6	337.4	211.0	192.6	192.6	192.6	192.6
2161	2161	WEST MADHYA PRADESH	2015	40.2	6.4	53.5	13.3	2.0	154.1	428.2	276.6	55.6	55.6	55.6	55.6

2162 rows × 20 columns

In [279]: c=b.tail(115)

Out[279]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
2047	2047	WEST MADHYA PRADESH	1901	25.8	5.8	5.8	2.8	2.1	41.2	228.9	349.9	47.9	5.6
2048	2048	WEST MADHYA PRADESH	1902	22.1	8.4	0.0	2.0	5.9	35.9	401.9	179.4	194.1	37.9
2049	2049	WEST MADHYA PRADESH	1903	5.3	0.0	0.0	0.0	22.3	50.6	304.9	261.1	250.2	55.1
2050	2050	WEST MADHYA PRADESH	1904	3.2	15.5	14.8	0.0	12.0	96.6	273.0	218.6	125.9	3.3
2051	2051	WEST MADHYA PRADESH	1905	3.5	4.4	1.1	0.8	3.0	36.1	326.3	137.6	183.5	0.3
...
2157	2157	WEST MADHYA PRADESH	2011	0.0	1.7	0.1	1.8	3.6	241.5	306.7	343.3	165.0	0.2
2158	2158	WEST MADHYA PRADESH	2012	6.2	0.0	0.0	0.9	3.1	48.2	439.2	341.2	194.3	2.1
2159	2159	WEST MADHYA PRADESH	2013	1.7	31.1	8.5	2.8	0.4	263.7	485.1	432.6	98.9	68.7
2160	2160	WEST MADHYA PRADESH	2014	25.6	34.4	4.6	1.4	1.4	30.6	337.4	211.0	192.6	7.0
2161	2161	WEST MADHYA PRADESH	2015	40.2	6.4	53.5	13.3	2.0	154.1	428.2	276.6	55.6	11.0

115 rows × 20 columns

In [280]: `d=c[['YEAR', 'JAN', 'FEB', 'MAR']]`

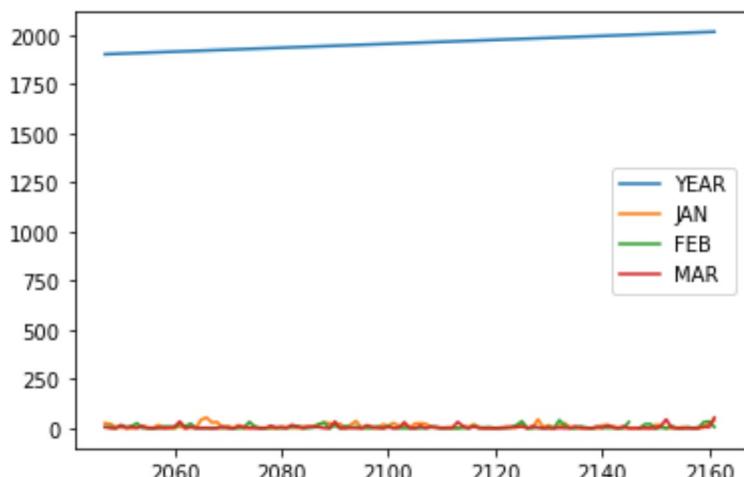
Out[280]:

	YEAR	JAN	FEB	MAR
2047	1901	25.8	5.8	5.8
2048	1902	22.1	8.4	0.0
2049	1903	5.3	0.0	0.0
2050	1904	3.2	15.5	14.8
2051	1905	3.5	4.4	1.1
...
2157	2011	0.0	1.7	0.1
2158	2012	6.2	0.0	0.0
2159	2013	1.7	31.1	8.5
2160	2014	25.6	34.4	4.6
2161	2015	40.2	6.4	53.5

115 rows × 4 columns

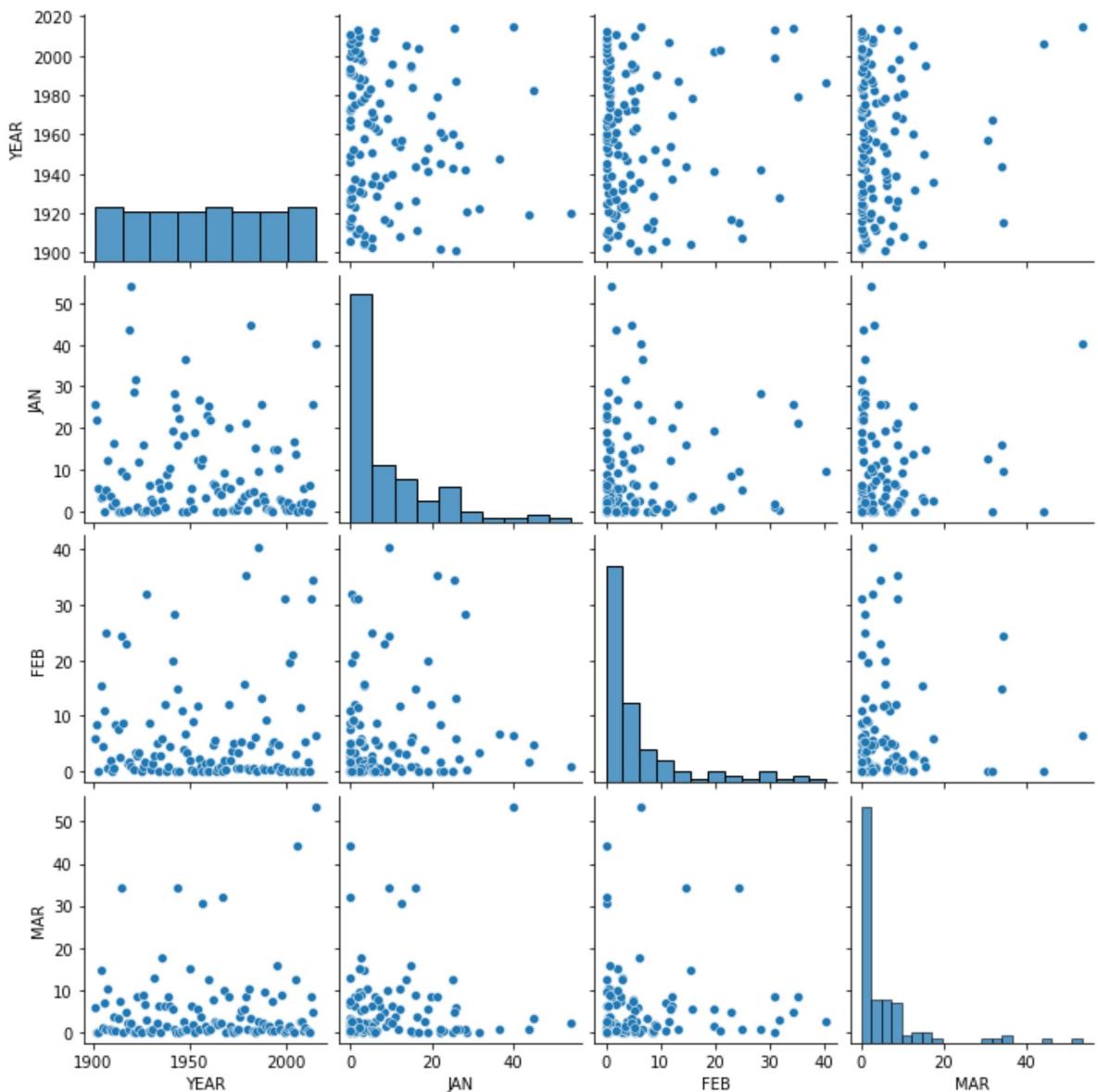
In [281]:

Out[281]: <AxesSubplot:>



In [282]:

Out[282]: <seaborn.axisgrid.PairGrid at 0x227853f4580>

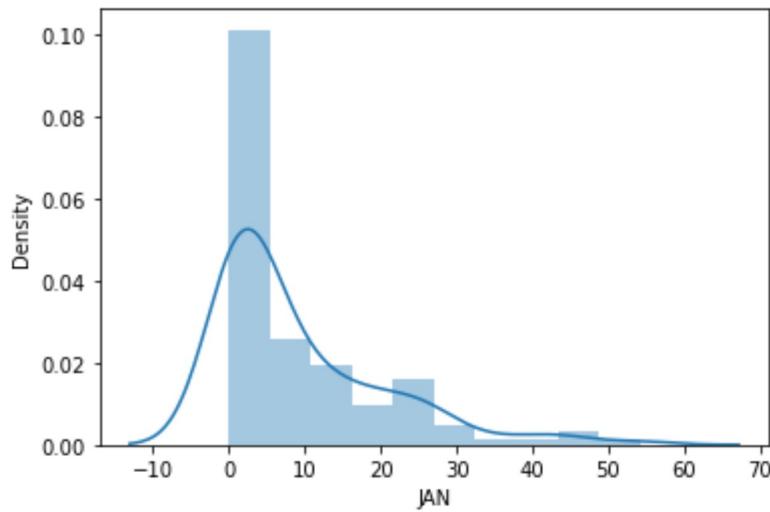


In [283]:

```
C:\ProgramData\Anaconda3\lib\site-packages\seaborn\distributions.py:2557: FutureWarning: `distplot` is a deprecated function and will be removed in a future version. Please adapt your code to use either `displot` (a figure-level function with similar flexibility) or `histplot` (an axes-level function for histograms).
```

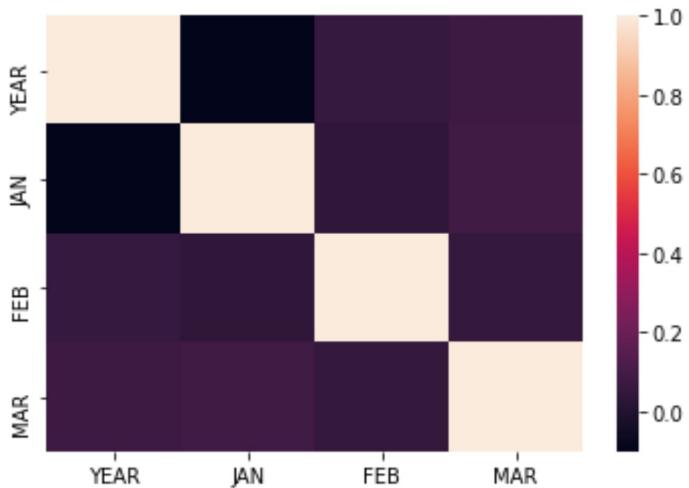
```
    warnings.warn(msg, FutureWarning)
```

Out[283]: <AxesSubplot:xlabel='JAN', ylabel='Density'>



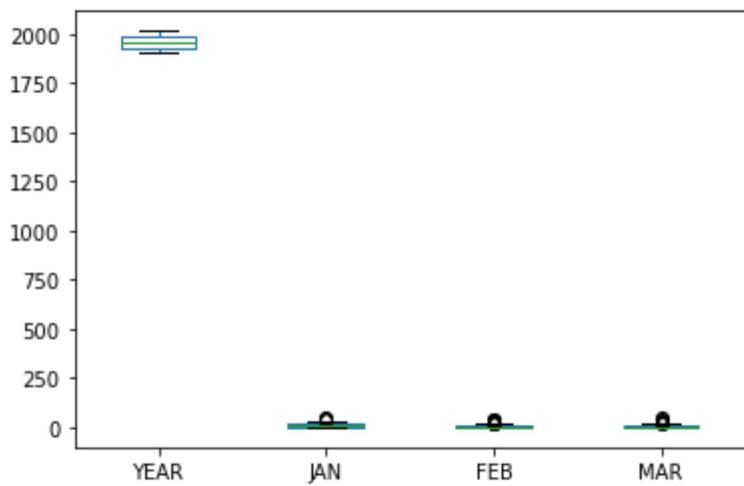
In [284]:

Out[284]: <AxesSubplot:>



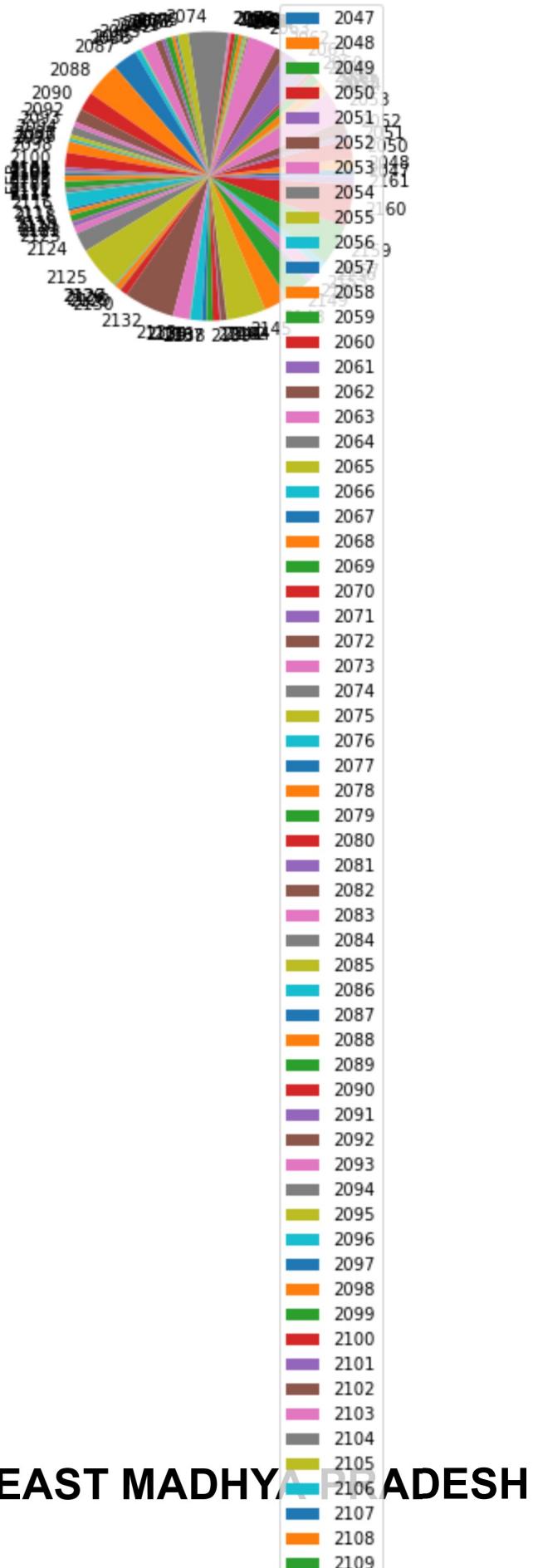
In [285]:

Out[285]: <AxesSubplot:>



In [286]:

Out[286]: <AxesSubplot:ylabel='FEB'>



In [288]: `c=a.head(2277)`

Out[288]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
0	0	ANDAMAN & NICOBAR ISLANDS	1901	49.2	87.1	29.2	2.3	528.8	517.5	365.1	481.1	332.6	312.1	262.1	212.1
1	1	ANDAMAN & NICOBAR ISLANDS	1902	0.0	159.8	12.2	0.0	446.1	537.1	228.9	753.7	666.2	116.1	116.1	116.1
2	2	ANDAMAN & NICOBAR ISLANDS	1903	12.7	144.0	0.0	1.0	235.1	479.9	728.4	326.7	339.0	116.1	116.1	116.1
3	3	ANDAMAN & NICOBAR ISLANDS	1904	9.4	14.7	0.0	202.4	304.5	495.1	502.0	160.1	820.4	212.1	212.1	212.1
4	4	ANDAMAN & NICOBAR ISLANDS	1905	1.3	0.0	3.3	26.9	279.5	628.7	368.7	330.5	297.0	212.1	212.1	212.1
...
2272	2272	EAST MADHYA PRADESH	2011	0.6	1.9	0.3	7.1	4.7	332.5	323.6	326.9	276.5	212.1	212.1	212.1
2273	2273	EAST MADHYA PRADESH	2012	39.4	0.7	0.6	1.1	1.2	67.8	398.9	351.7	172.6	212.1	212.1	212.1
2274	2274	EAST MADHYA PRADESH	2013	2.0	43.4	14.1	9.5	0.3	311.9	456.2	480.8	78.0	116.1	212.1	212.1
2275	2275	EAST MADHYA PRADESH	2014	32.1	49.7	17.8	5.1	2.5	91.8	283.4	231.8	139.6	212.1	212.1	212.1
2276	2276	EAST MADHYA PRADESH	2015	37.3	11.0	73.4	25.8	6.3	139.2	262.2	272.1	71.6	212.1	212.1	212.1

2277 rows × 20 columns

In [289]: `d=c.tail(115)`

Out[289]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OC
2162	2162	EAST MADHYA PRADESH	1901	48.5	38.1	15.7	10.7	6.2	61.0	367.5	589.2	189.9	5.
2163	2163	EAST MADHYA PRADESH	1902	14.9	8.9	0.0	3.6	2.7	28.0	411.9	227.0	236.6	17.
2164	2164	EAST MADHYA PRADESH	1903	5.6	2.9	0.3	0.9	37.5	67.5	261.4	366.7	257.4	177.
2165	2165	EAST MADHYA PRADESH	1904	2.0	15.3	48.2	0.0	8.6	109.9	443.2	316.6	135.6	44.
2166	2166	EAST MADHYA PRADESH	1905	15.9	8.0	14.3	12.3	10.2	34.4	292.4	243.3	250.9	2.
...
2272	2272	EAST MADHYA PRADESH	2011	0.6	1.9	0.3	7.1	4.7	332.5	323.6	326.9	276.5	1.
2273	2273	EAST MADHYA PRADESH	2012	39.4	0.7	0.6	1.1	1.2	67.8	398.9	351.7	172.6	12.
2274	2274	EAST MADHYA PRADESH	2013	2.0	43.4	14.1	9.5	0.3	311.9	456.2	480.8	78.0	124.
2275	2275	EAST MADHYA PRADESH	2014	32.1	49.7	17.8	5.1	2.5	91.8	283.4	231.8	139.6	56.
2276	2276	EAST MADHYA PRADESH	2015	37.3	11.0	73.4	25.8	6.3	139.2	262.2	272.1	71.6	38.

115 rows × 20 columns

In [290]: `e=d[['JAN', 'FEB', 'MAR']]`

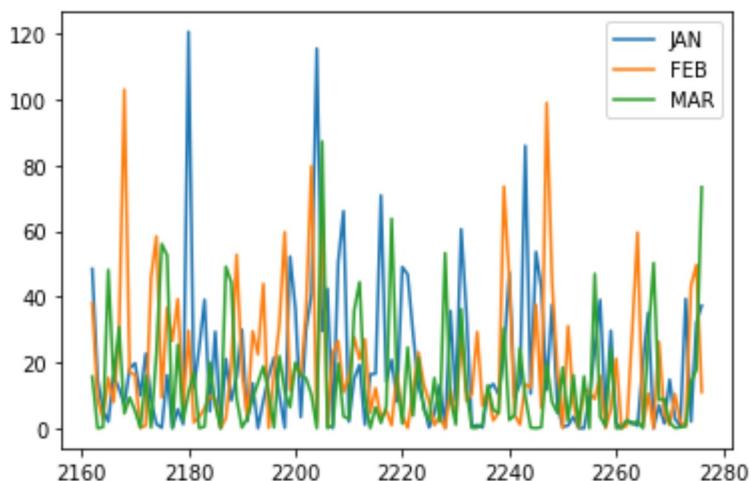
Out[290]:

	JAN	FEB	MAR
2162	48.5	38.1	15.7
2163	14.9	8.9	0.0
2164	5.6	2.9	0.3
2165	2.0	15.3	48.2
2166	15.9	8.0	14.3
...
2272	0.6	1.9	0.3
2273	39.4	0.7	0.6
2274	2.0	43.4	14.1
2275	32.1	49.7	17.8
2276	37.3	11.0	73.4

115 rows × 3 columns

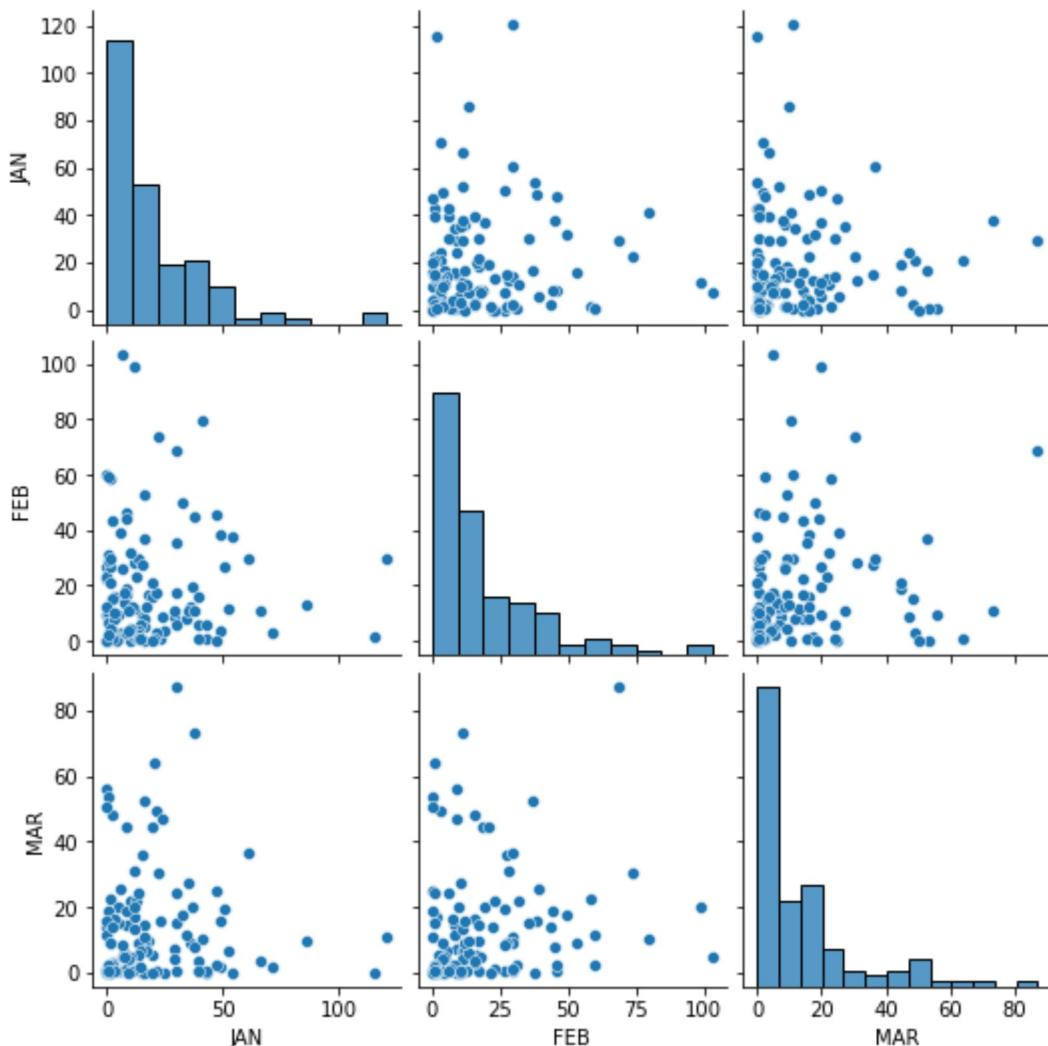
In [291]:

Out[291]: <AxesSubplot:>



In [292]:

Out[292]: <seaborn.axisgrid.PairGrid at 0x227864ef640>

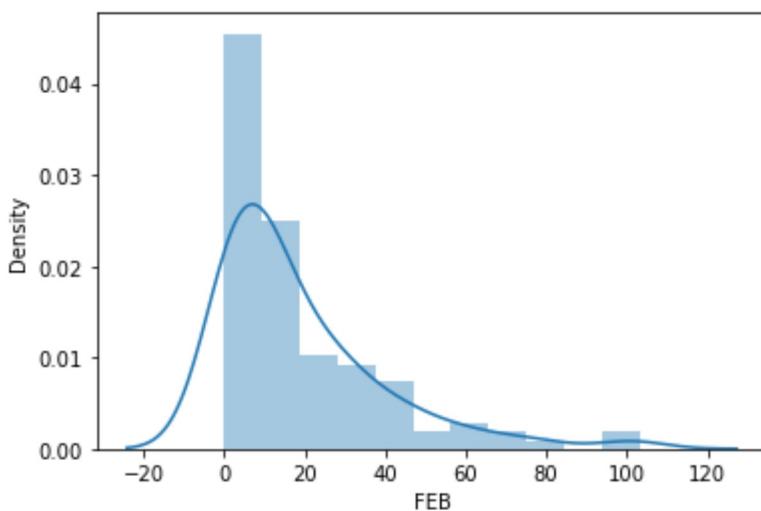


In [293]:

```
C:\ProgramData\Anaconda3\lib\site-packages\seaborn\distributions.py:2557: FutureWarning: `distplot` is a deprecated function and will be removed in a future version. Please adapt your code to use either `displot` (a figure-level function with similar flexibility) or `histplot` (an axes-level function for histograms).
```

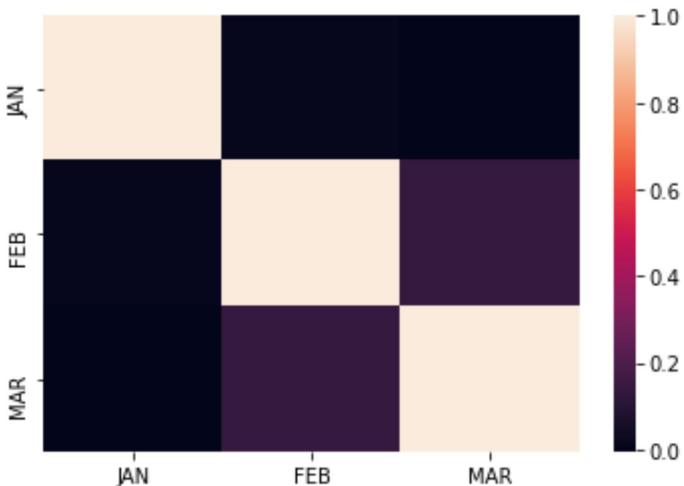
```
    warnings.warn(msg, FutureWarning)
```

Out[293]: <AxesSubplot:xlabel='FEB', ylabel='Density'>



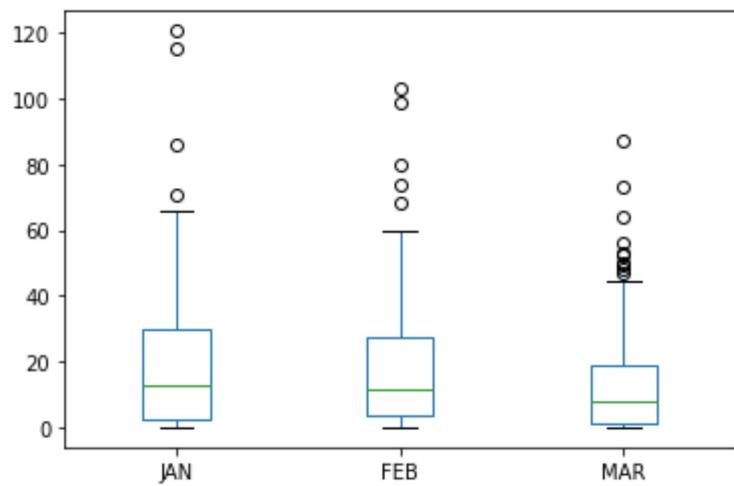
In [294]:

Out[294]: <AxesSubplot:>



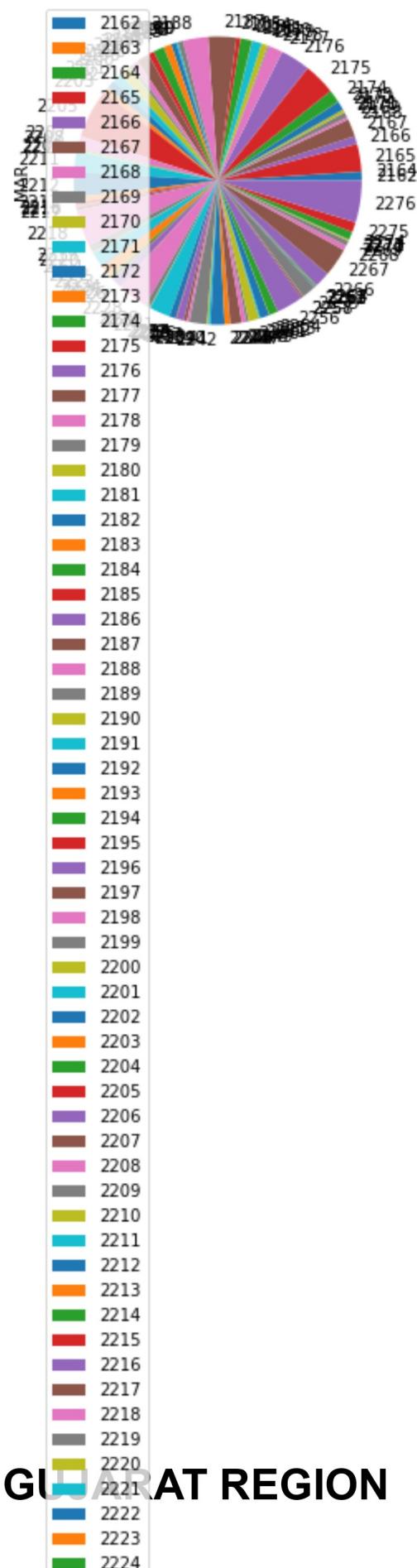
In [295]:

Out[295]: <AxesSubplot:>



In [296]:

Out[296]: <AxesSubplot:ylabel='MAR'>



In [299]: c=a.head(2392)

Out[299]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
0	0	ANDAMAN & NICOBAR ISLANDS	1901	49.2	87.1	29.2	2.3	528.8	517.5	365.1	481.1	332.6	311.1	250.0	200.0
1	1	ANDAMAN & NICOBAR ISLANDS	1902	0.0	159.8	12.2	0.0	446.1	537.1	228.9	753.7	666.2	191.1	191.1	191.1
2	2	ANDAMAN & NICOBAR ISLANDS	1903	12.7	144.0	0.0	1.0	235.1	479.9	728.4	326.7	339.0	111.1	111.1	111.1
3	3	ANDAMAN & NICOBAR ISLANDS	1904	9.4	14.7	0.0	202.4	304.5	495.1	502.0	160.1	820.4	211.1	211.1	211.1
4	4	ANDAMAN & NICOBAR ISLANDS	1905	1.3	0.0	3.3	26.9	279.5	628.7	368.7	330.5	297.0	211.1	211.1	211.1
...
2387	2387	GUJARAT REGION	2011	0.0	0.2	0.0	0.0	0.0	16.3	259.2	451.7	162.5	162.5	162.5	162.5
2388	2388	GUJARAT REGION	2012	0.1	0.0	0.0	0.0	0.0	34.4	178.2	230.3	263.8	263.8	263.8	263.8
2389	2389	GUJARAT REGION	2013	0.0	0.9	0.1	4.6	0.0	155.7	405.4	211.1	287.3	287.3	287.3	287.3
2390	2390	GUJARAT REGION	2014	5.7	0.1	0.2	1.0	1.3	11.6	307.5	138.6	235.1	235.1	235.1	235.1
2391	2391	GUJARAT REGION	2015	1.8	0.0	6.1	5.5	0.9	120.7	354.7	37.4	93.4	93.4	93.4	93.4

2392 rows × 20 columns

In [300]: `d=c.tail(115)`

Out[300]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
2277	2277	GUJARAT REGION	1901	4.2	0.0	0.6	1.6	7.0	60.3	240.2	205.4	18.1	16.6
2278	2278	GUJARAT REGION	1902	3.9	0.0	0.0	0.6	1.0	32.8	229.8	299.0	281.2	2.3
2279	2279	GUJARAT REGION	1903	0.3	0.1	1.4	0.0	12.3	30.1	452.9	202.0	183.2	5.4
2280	2280	GUJARAT REGION	1904	0.8	10.6	16.8	0.2	3.9	48.3	194.8	71.8	138.0	6.1
2281	2281	GUJARAT REGION	1905	0.1	0.7	1.1	0.3	0.0	20.1	668.3	37.9	81.3	1.4
...
2387	2387	GUJARAT REGION	2011	0.0	0.2	0.0	0.0	0.0	16.3	259.2	451.7	162.5	0.4
2388	2388	GUJARAT REGION	2012	0.1	0.0	0.0	0.0	0.0	34.4	178.2	230.3	263.8	7.1
2389	2389	GUJARAT REGION	2013	0.0	0.9	0.1	4.6	0.0	155.7	405.4	211.1	287.3	53.2
2390	2390	GUJARAT REGION	2014	5.7	0.1	0.2	1.0	1.3	11.6	307.5	138.6	235.1	3.3
2391	2391	GUJARAT REGION	2015	1.8	0.0	6.1	5.5	0.9	120.7	354.7	37.4	93.4	2.2

115 rows × 20 columns

In [301]: `e=d[['JAN', 'FEB', 'MAR','APR','MAY']]`

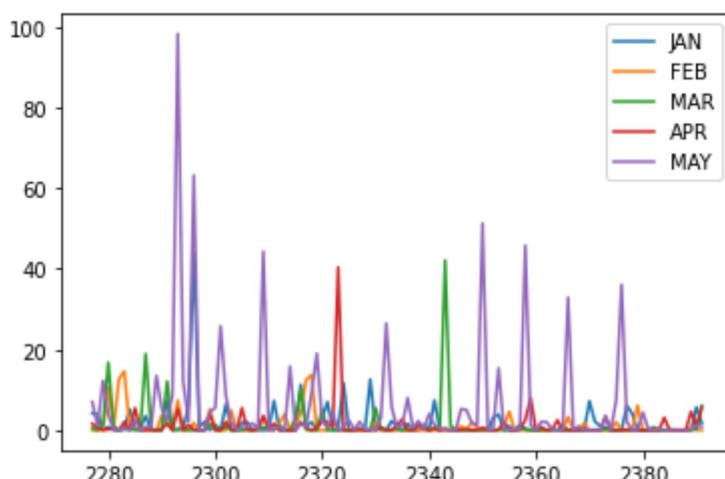
Out[301]:

	JAN	FEB	MAR	APR	MAY
2277	4.2	0.0	0.6	1.6	7.0
2278	3.9	0.0	0.0	0.6	1.0
2279	0.3	0.1	1.4	0.0	12.3
2280	0.8	10.6	16.8	0.2	3.9
2281	0.1	0.7	1.1	0.3	0.0
...
2387	0.0	0.2	0.0	0.0	0.0
2388	0.1	0.0	0.0	0.0	0.0
2389	0.0	0.9	0.1	4.6	0.0
2390	5.7	0.1	0.2	1.0	1.3
2391	1.8	0.0	6.1	5.5	0.9

115 rows × 5 columns

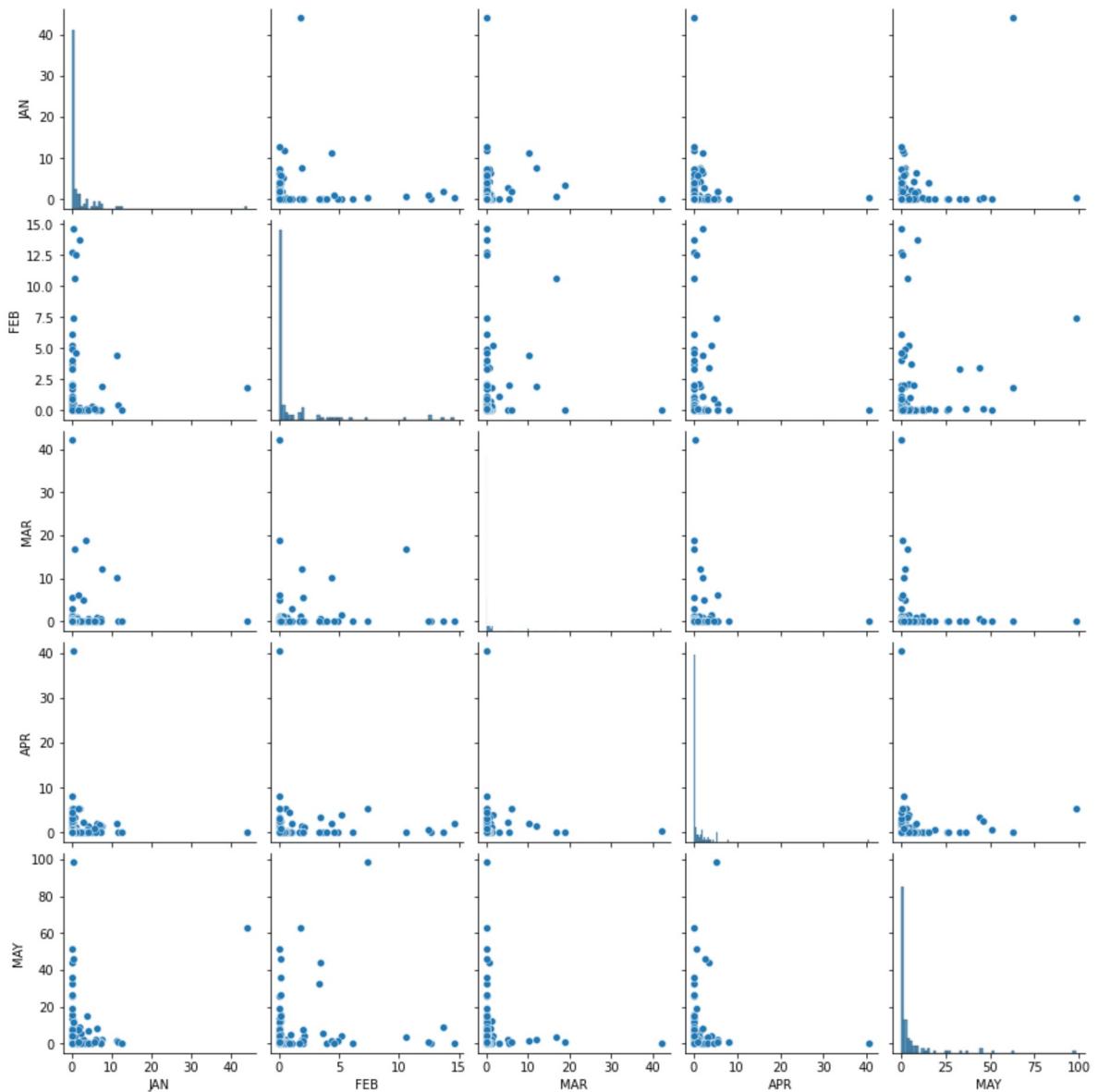
In [302]:

Out[302]: <AxesSubplot:>



In [303]:

Out[303]: <seaborn.axisgrid.PairGrid at 0x22788443730>

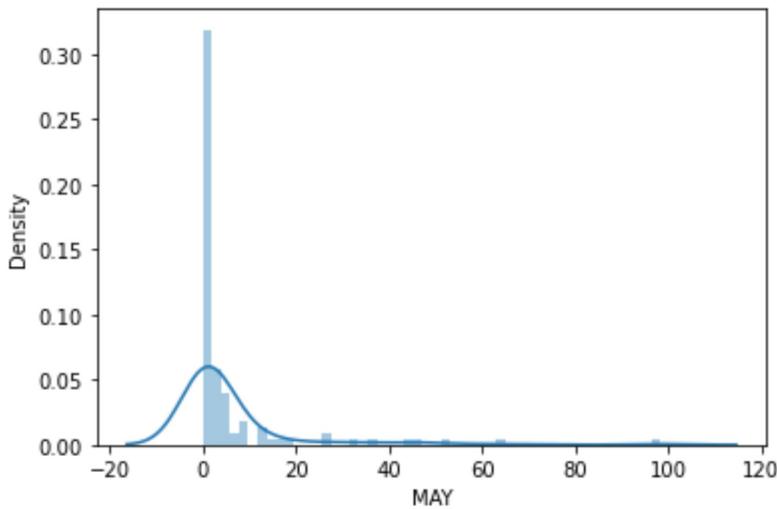


In [304]:

```
C:\ProgramData\Anaconda3\lib\site-packages\seaborn\distributions.py:2557: FutureWarning: `distplot` is a deprecated function and will be removed in a future version. Please adapt your code to use either `displot` (a figure-level function with similar flexibility) or `histplot` (an axes-level function for histograms).
```

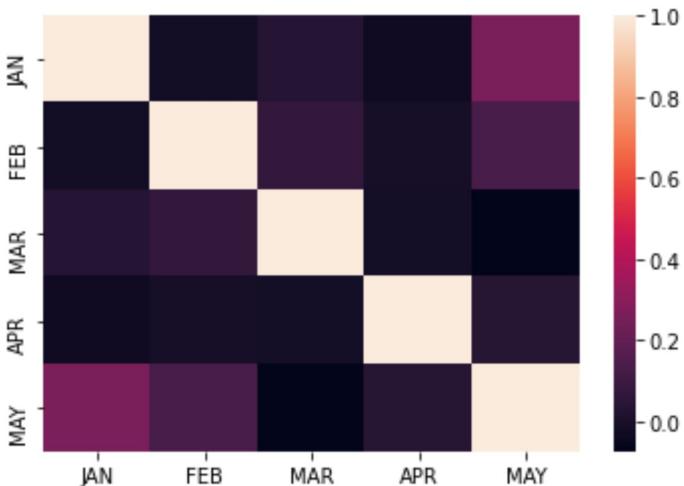
```
    warnings.warn(msg, FutureWarning)
```

Out[304]: <AxesSubplot:xlabel='MAY', ylabel='Density'>



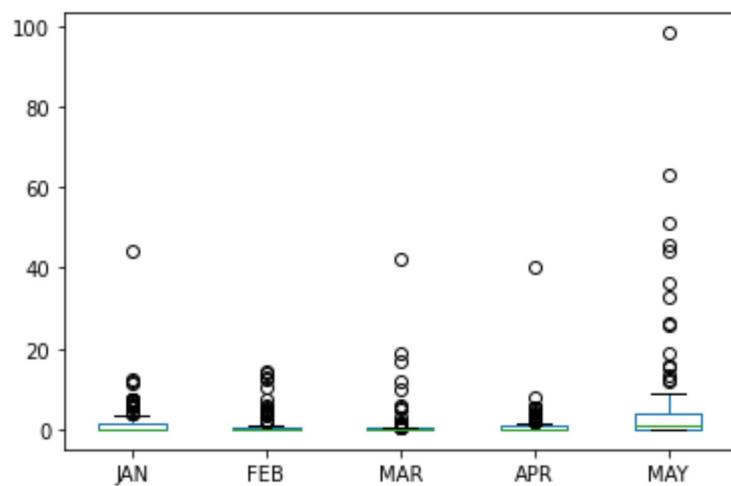
In [305]:

Out[305]: <AxesSubplot:>



In [306]:

Out[306]: <AxesSubplot:>



In [307]:

Out[307]: <AxesSubplot:ylabel='FEB'>



In [309]: `c=a.head(2507)`

Out[309]:

		index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
0	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	3	3
1	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	1	1
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	1	1	1
3	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	2	2
4	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	2	2
...
2502	2502	2502	SAURASHTRA & KUTCH	2011	0.0	1.4	0.0	0.0	0.0	26.0	212.7	290.9	210.1	1	1	1
2503	2503	2503	SAURASHTRA & KUTCH	2012	0.0	0.0	0.0	0.2	0.1	22.4	34.7	34.5	228.5	1	1	1
2504	2504	2504	SAURASHTRA & KUTCH	2013	1.7	0.2	0.1	8.5	0.1	127.7	171.2	83.3	260.2	1	1	1
2505	2505	2505	SAURASHTRA & KUTCH	2014	0.3	0.0	0.1	0.5	2.1	17.3	137.7	118.8	99.2	1	1	1
2506	2506	2506	SAURASHTRA & KUTCH	2015	0.9	0.0	4.4	2.1	0.8	112.6	226.7	10.6	79.9	1	1	1

2507 rows × 20 columns

In [310]: `d=c.tail(115)`

Out[310]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2392	2392	SAURASHTRA & KUTCH	1901	1.9	0.0	0.1	0.2	3.2	9.1	87.8	62.5	12.0	3.	1.	1.
2393	2393	SAURASHTRA & KUTCH	1902	0.1	0.0	0.0	0.5	1.1	14.4	92.9	160.0	123.9	1.	1.	1.
2394	2394	SAURASHTRA & KUTCH	1903	0.5	0.0	1.7	0.0	3.1	10.5	337.9	96.1	61.9	11.	11.	1.
2395	2395	SAURASHTRA & KUTCH	1904	1.4	5.8	17.5	0.0	0.0	9.5	111.2	9.4	28.9	0.	0.	0.
2396	2396	SAURASHTRA & KUTCH	1905	1.5	1.0	0.6	0.4	0.0	6.4	254.5	12.3	12.8	0.	0.	0.
...
2502	2502	SAURASHTRA & KUTCH	2011	0.0	1.4	0.0	0.0	0.0	26.0	212.7	290.9	210.1	1.	1.	1.
2503	2503	SAURASHTRA & KUTCH	2012	0.0	0.0	0.0	0.2	0.1	22.4	34.7	34.5	228.5	2.	2.	2.
2504	2504	SAURASHTRA & KUTCH	2013	1.7	0.2	0.1	8.5	0.1	127.7	171.2	83.3	260.2	28.	28.	28.
2505	2505	SAURASHTRA & KUTCH	2014	0.3	0.0	0.1	0.5	2.1	17.3	137.7	118.8	99.2	5.	5.	5.
2506	2506	SAURASHTRA & KUTCH	2015	0.9	0.0	4.4	2.1	0.8	112.6	226.7	10.6	79.9	3.	3.	3.

115 rows × 20 columns

In [311]: `e=d[['JAN', 'FEB', 'MAR','APR','MAY']]`

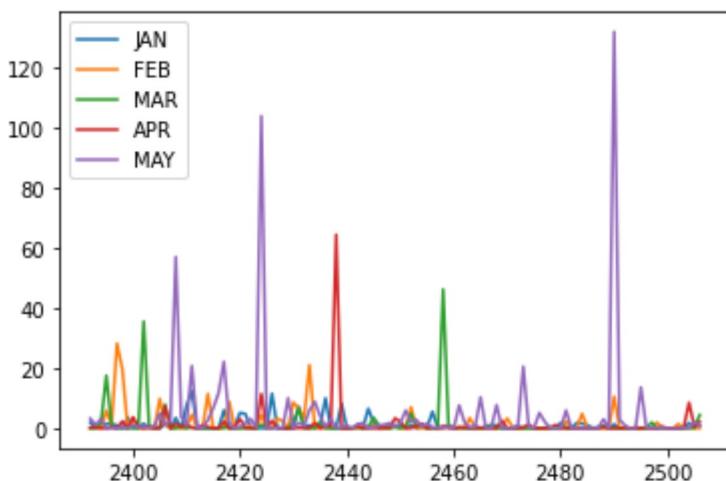
Out[311]:

	JAN	FEB	MAR	APR	MAY
2392	1.9	0.0	0.1	0.2	3.2
2393	0.1	0.0	0.0	0.5	1.1
2394	0.5	0.0	1.7	0.0	3.1
2395	1.4	5.8	17.5	0.0	0.0
2396	1.5	1.0	0.6	0.4	0.0
...
2502	0.0	1.4	0.0	0.0	0.0
2503	0.0	0.0	0.0	0.2	0.1
2504	1.7	0.2	0.1	8.5	0.1
2505	0.3	0.0	0.1	0.5	2.1
2506	0.9	0.0	4.4	2.1	0.8

115 rows × 5 columns

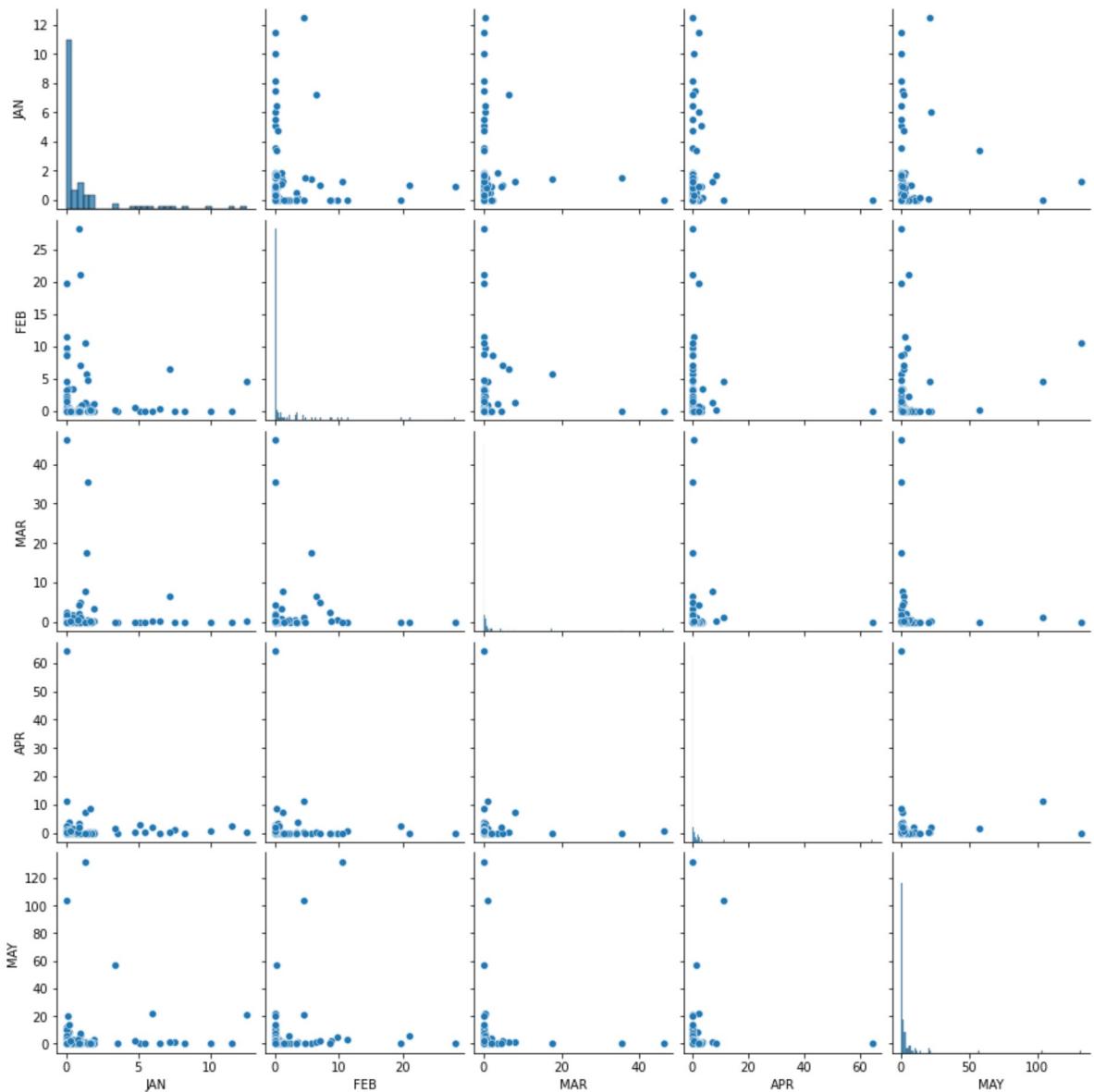
In [312]:

Out[312]: <AxesSubplot:>



In [313]:

Out[313]: <seaborn.axisgrid.PairGrid at 0x22789caeac0>

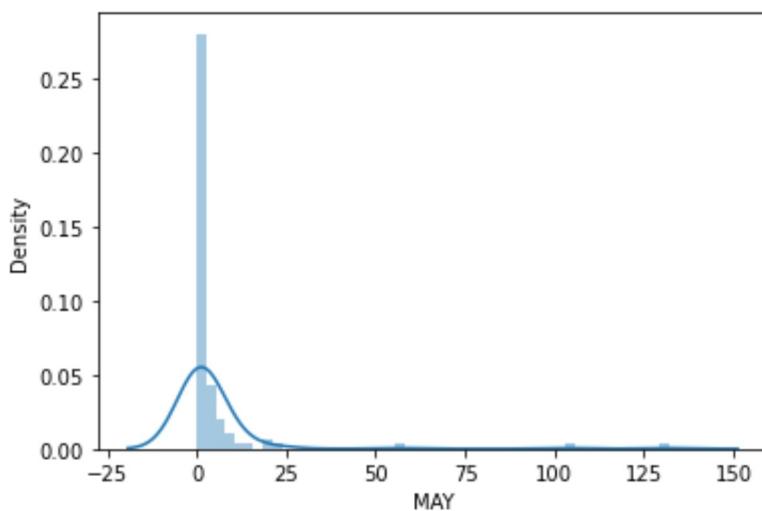


In [314]:

```
C:\ProgramData\Anaconda3\lib\site-packages\seaborn\distributions.py:2557: FutureWarning: `distplot` is a deprecated function and will be removed in a future version. Please adapt your code to use either `displot` (a figure-level function with similar flexibility) or `histplot` (an axes-level function for histograms).
```

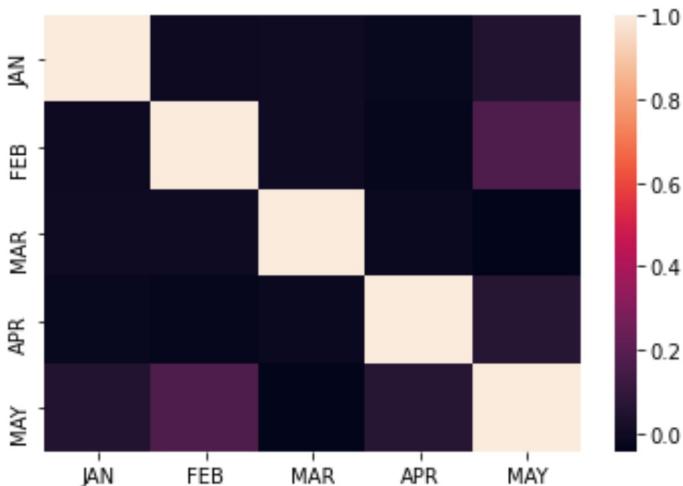
```
    warnings.warn(msg, FutureWarning)
```

Out[314]: <AxesSubplot:xlabel='MAY', ylabel='Density'>



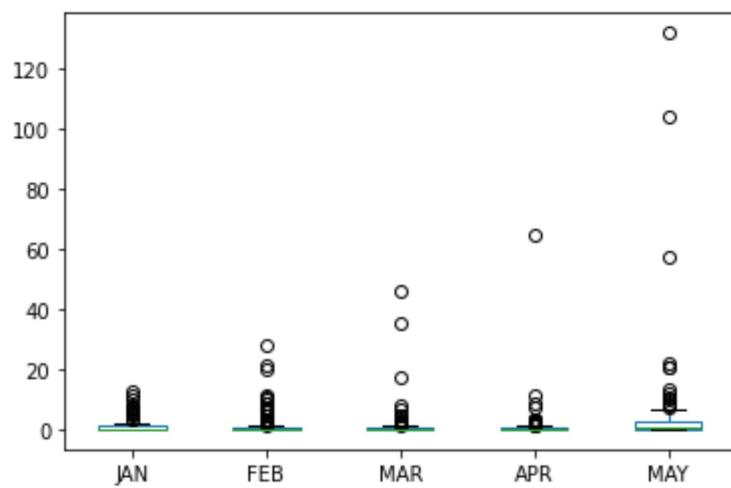
In [315]:

Out[315]: <AxesSubplot:>



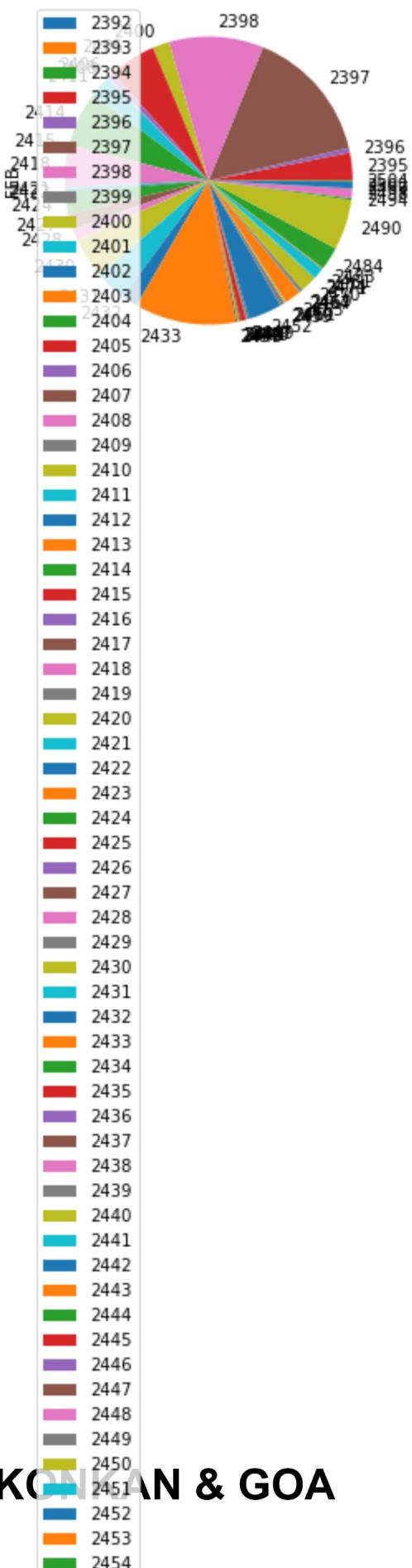
In [316]:

Out[316]: <AxesSubplot:>



In [317]:

Out[317]: <AxesSubplot:ylabel='FEB'>



In [320]: `c=a.head(2622)`

Out[320]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
0	0	ANDAMAN & NICOBAR ISLANDS	1901	49.2	87.1	29.2	2.3	528.8	517.5	365.1	481.1	332.6
1	1	ANDAMAN & NICOBAR ISLANDS	1902	0.0	159.8	12.2	0.0	446.1	537.1	228.9	753.7	666.2
2	2	ANDAMAN & NICOBAR ISLANDS	1903	12.7	144.0	0.0	1.0	235.1	479.9	728.4	326.7	339.0
3	3	ANDAMAN & NICOBAR ISLANDS	1904	9.4	14.7	0.0	202.4	304.5	495.1	502.0	160.1	820.4
4	4	ANDAMAN & NICOBAR ISLANDS	1905	1.3	0.0	3.3	26.9	279.5	628.7	368.7	330.5	297.0
...
2617	2617	KONKAN & GOA	2011	0.0	0.0	0.0	3.4	1.1	857.0	1384.1	987.9	468.3
2618	2618	KONKAN & GOA	2012	0.0	0.0	0.0	0.6	1.1	633.0	928.5	762.5	515.3
2619	2619	KONKAN & GOA	2013	1.8	5.4	0.1	0.1	18.5	1028.3	1478.5	497.6	340.7
2620	2620	KONKAN & GOA	2014	1.3	5.3	1.8	0.7	21.3	238.2	1293.2	658.0	419.5
2621	2621	KONKAN & GOA	2015	2.7	0.0	36.8	3.6	11.3	764.0	526.5	377.3	240.9

2622 rows × 20 columns

In [321]: `d=c.tail(115)`

Out[321]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
2507	2507	KONKAN & GOA	1901	5.6	0.1	0.4	35.7	19.9	746.1	1075.5	748.0	117.4
2508	2508	KONKAN & GOA	1902	0.3	0.0	0.0	0.4	7.6	428.2	943.6	515.1	613.8
2509	2509	KONKAN & GOA	1903	0.0	0.0	0.1	0.0	201.1	470.5	1298.6	673.9	285.1
2510	2510	KONKAN & GOA	1904	0.0	0.1	6.6	6.3	4.6	975.8	771.7	321.3	217.0
2511	2511	KONKAN & GOA	1905	0.1	0.1	0.0	0.4	8.6	293.7	770.6	305.5	208.3
...
2617	2617	KONKAN & GOA	2011	0.0	0.0	0.0	3.4	1.1	857.0	1384.1	987.9	468.3
2618	2618	KONKAN & GOA	2012	0.0	0.0	0.0	0.6	1.1	633.0	928.5	762.5	515.3
2619	2619	KONKAN & GOA	2013	1.8	5.4	0.1	0.1	18.5	1028.3	1478.5	497.6	340.7
2620	2620	KONKAN & GOA	2014	1.3	5.3	1.8	0.7	21.3	238.2	1293.2	658.0	419.5
2621	2621	KONKAN & GOA	2015	2.7	0.0	36.8	3.6	11.3	764.0	526.5	377.3	240.9

115 rows × 20 columns

In [322]: `e=d[['JAN', 'FEB', 'MAR','APR','MAY']]`

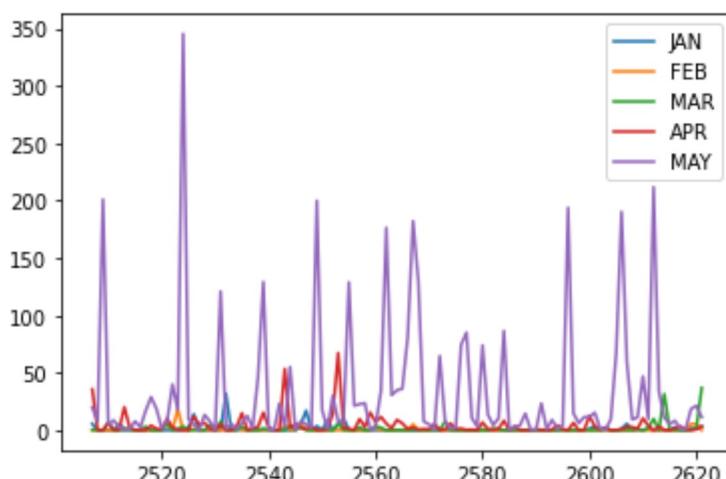
Out[322]:

	JAN	FEB	MAR	APR	MAY
2507	5.6	0.1	0.4	35.7	19.9
2508	0.3	0.0	0.0	0.4	7.6
2509	0.0	0.0	0.1	0.0	201.1
2510	0.0	0.1	6.6	6.3	4.6
2511	0.1	0.1	0.0	0.4	8.6
...
2617	0.0	0.0	0.0	3.4	1.1
2618	0.0	0.0	0.0	0.6	1.1
2619	1.8	5.4	0.1	0.1	18.5
2620	1.3	5.3	1.8	0.7	21.3
2621	2.7	0.0	36.8	3.6	11.3

115 rows × 5 columns

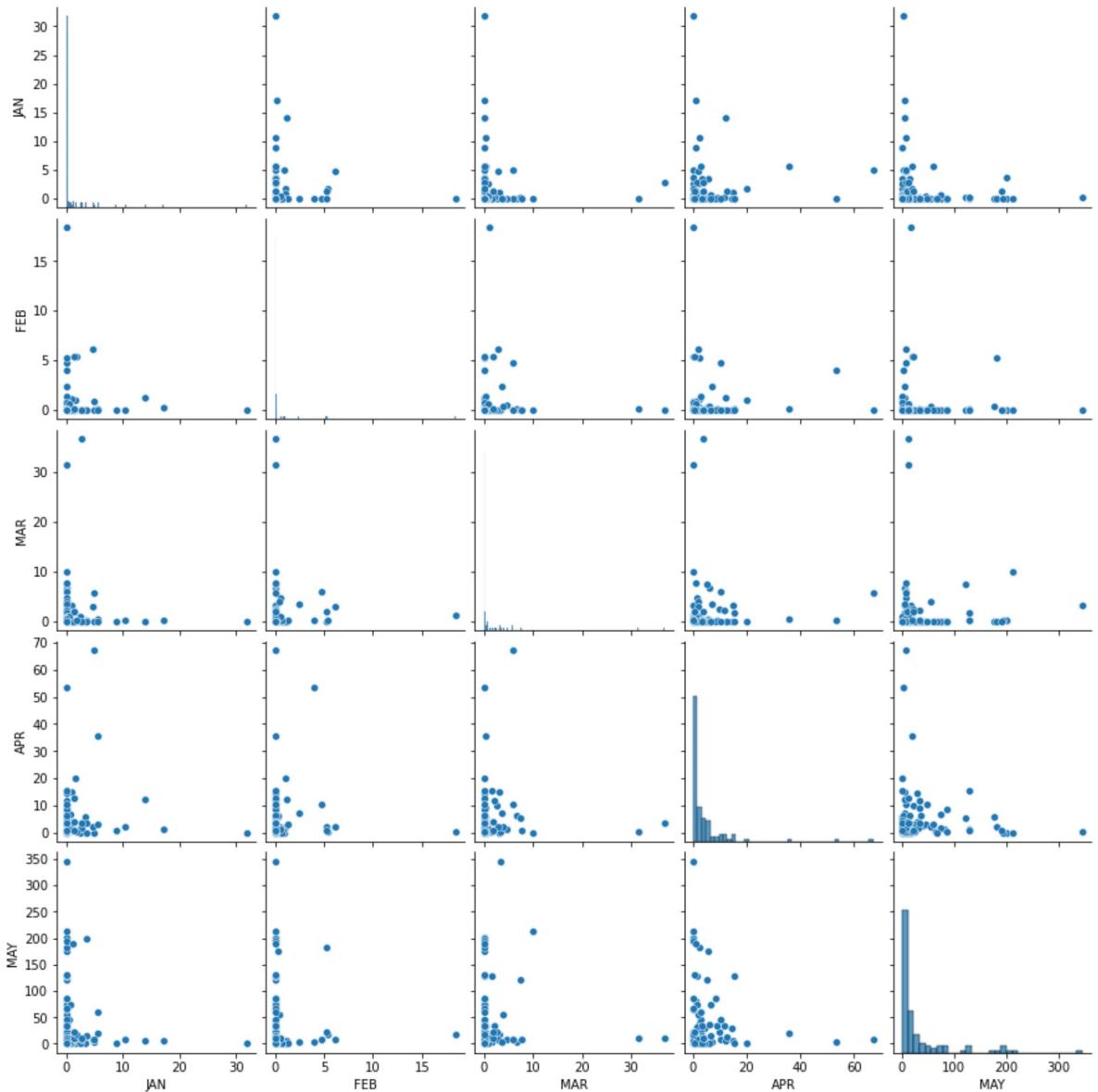
In [323]:

Out[323]: <AxesSubplot:>



In [324]:

Out[324]: <seaborn.axisgrid.PairGrid at 0x2278d0ef220>

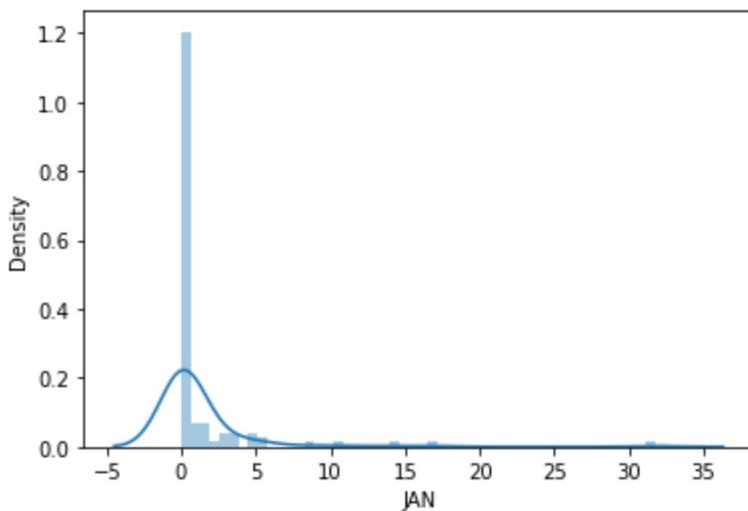


In [325]:

```
C:\ProgramData\Anaconda3\lib\site-packages\seaborn\distributions.py:2557: FutureWarning: `distplot` is a deprecated function and will be removed in a future version. Please adapt your code to use either `displot` (a figure-level function with similar flexibility) or `histplot` (an axes-level function for histograms).
```

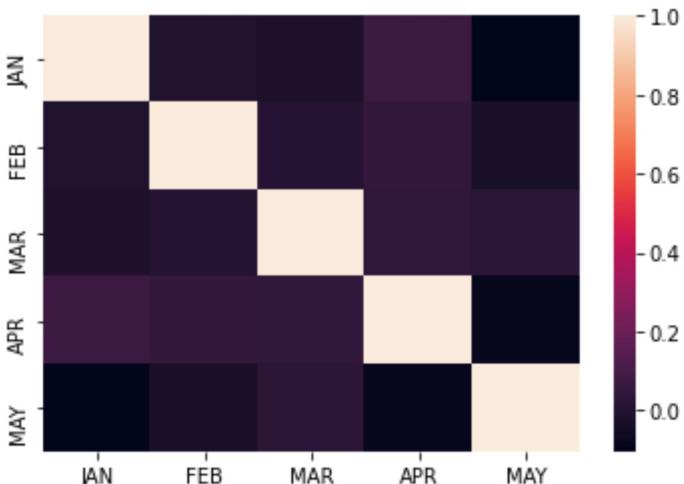
```
    warnings.warn(msg, FutureWarning)
```

Out[325]: <AxesSubplot:xlabel='JAN', ylabel='Density'>



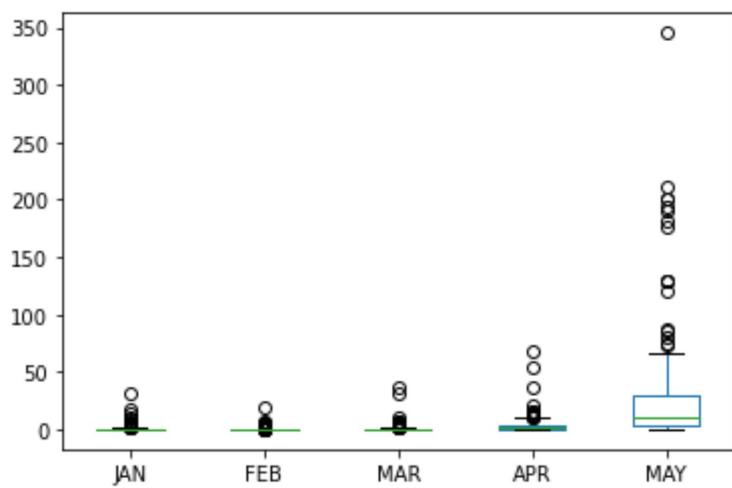
In [326]:

Out[326]: <AxesSubplot:>



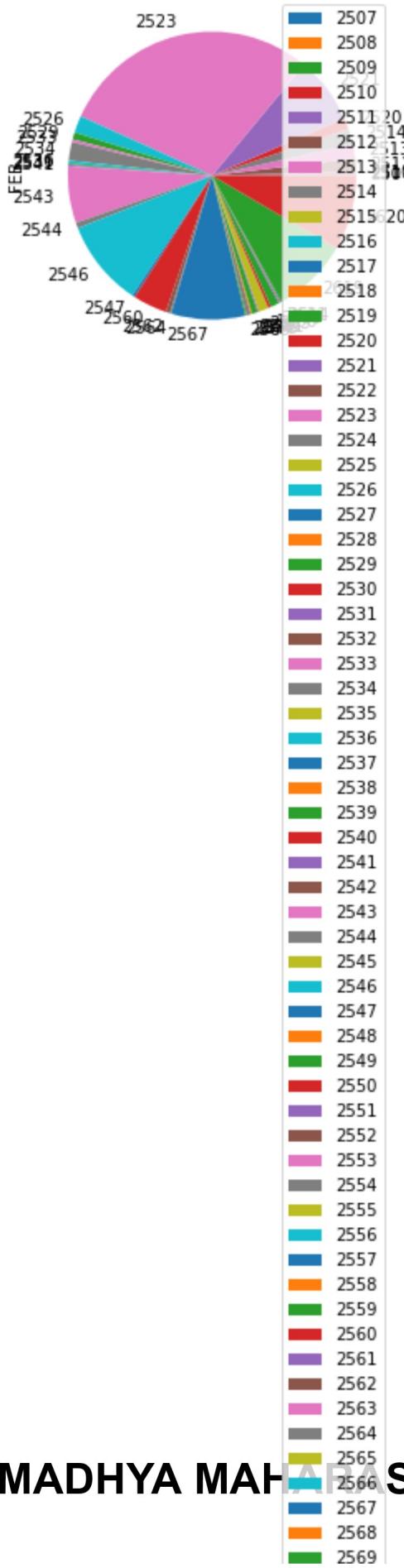
In [327]:

Out[327]: <AxesSubplot:>



In [328]:

Out[328]: <AxesSubplot:ylabel='FEB'>



MADHYA MAHARASHTRA

In [331]: `c=a.head(2737)`

Out[331]:

		index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
0	0	0	ANDAMAN & NICOBAR ISLANDS	1901	49.2	87.1	29.2	2.3	528.8	517.5	365.1	481.1	332.6
1	1	1	ANDAMAN & NICOBAR ISLANDS	1902	0.0	159.8	12.2	0.0	446.1	537.1	228.9	753.7	666.2
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
3	3	3	ANDAMAN & NICOBAR ISLANDS	1904	9.4	14.7	0.0	202.4	304.5	495.1	502.0	160.1	820.4
4	4	4	ANDAMAN & NICOBAR ISLANDS	1905	1.3	0.0	3.3	26.9	279.5	628.7	368.7	330.5	297.0
...
2732	2732	2732	MADHYA MAHARASHTRA	2011	0.0	0.3	0.3	5.0	2.9	133.3	261.4	238.1	148.4
2733	2733	2733	MADHYA MAHARASHTRA	2012	0.0	0.0	0.0	3.0	1.4	67.9	203.0	187.8	129.5
2734	2734	2734	MADHYA MAHARASHTRA	2013	0.1	5.3	0.8	5.7	6.0	212.4	311.8	147.0	210.3
2735	2735	2735	MADHYA MAHARASHTRA	2014	3.1	6.2	24.4	7.5	29.8	44.0	277.9	240.3	120.4
2736	2736	2736	MADHYA MAHARASHTRA	2015	1.4	0.8	41.2	9.6	24.4	177.0	111.7	67.2	146.6

2737 rows × 20 columns

In [332]: `d=c.tail(115)`

Out[332]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	O
2622	2622	MADHYA MAHARASHTRA	1901	18.8	0.6	7.7	36.6	30.4	107.7	215.9	194.1	83.7	6
2623	2623	MADHYA MAHARASHTRA	1902	7.8	0.0	0.1	5.0	9.8	102.6	210.9	114.5	169.5	6
2624	2624	MADHYA MAHARASHTRA	1903	7.6	0.0	0.0	3.2	77.2	86.3	281.8	155.5	142.3	7
2625	2625	MADHYA MAHARASHTRA	1904	0.4	4.7	1.7	3.0	18.7	114.6	126.5	59.5	183.0	9
2626	2626	MADHYA MAHARASHTRA	1905	0.0	1.2	0.0	2.3	23.6	65.0	252.8	79.0	52.6	5
...
2732	2732	MADHYA MAHARASHTRA	2011	0.0	0.3	0.3	5.0	2.9	133.3	261.4	238.1	148.4	6
2733	2733	MADHYA MAHARASHTRA	2012	0.0	0.0	0.0	3.0	1.4	67.9	203.0	187.8	129.5	9
2734	2734	MADHYA MAHARASHTRA	2013	0.1	5.3	0.8	5.7	6.0	212.4	311.8	147.0	210.3	5
2735	2735	MADHYA MAHARASHTRA	2014	3.1	6.2	24.4	7.5	29.8	44.0	277.9	240.3	120.4	3
2736	2736	MADHYA MAHARASHTRA	2015	1.4	0.8	41.2	9.6	24.4	177.0	111.7	67.2	146.6	4

115 rows × 20 columns

In [333]: `e=d[['JAN', 'FEB', 'MAR','APR','MAY']]`

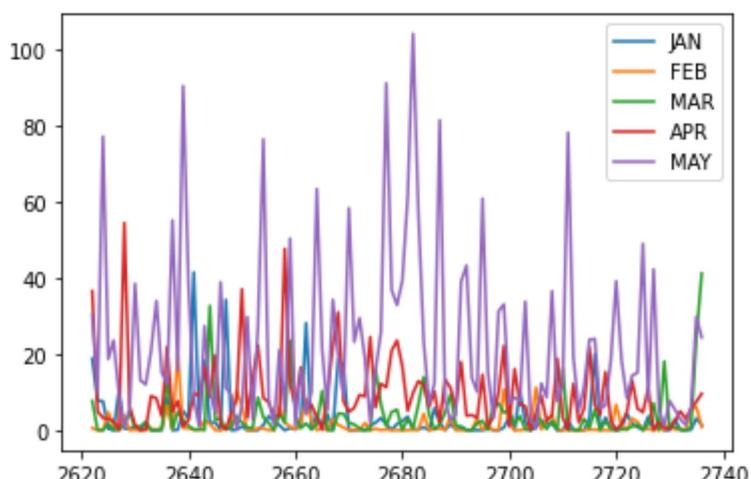
Out[333]:

	JAN	FEB	MAR	APR	MAY
2622	18.8	0.6	7.7	36.6	30.4
2623	7.8	0.0	0.1	5.0	9.8
2624	7.6	0.0	0.0	3.2	77.2
2625	0.4	4.7	1.7	3.0	18.7
2626	0.0	1.2	0.0	2.3	23.6
...
2732	0.0	0.3	0.3	5.0	2.9
2733	0.0	0.0	0.0	3.0	1.4
2734	0.1	5.3	0.8	5.7	6.0
2735	3.1	6.2	24.4	7.5	29.8
2736	1.4	0.8	41.2	9.6	24.4

115 rows × 5 columns

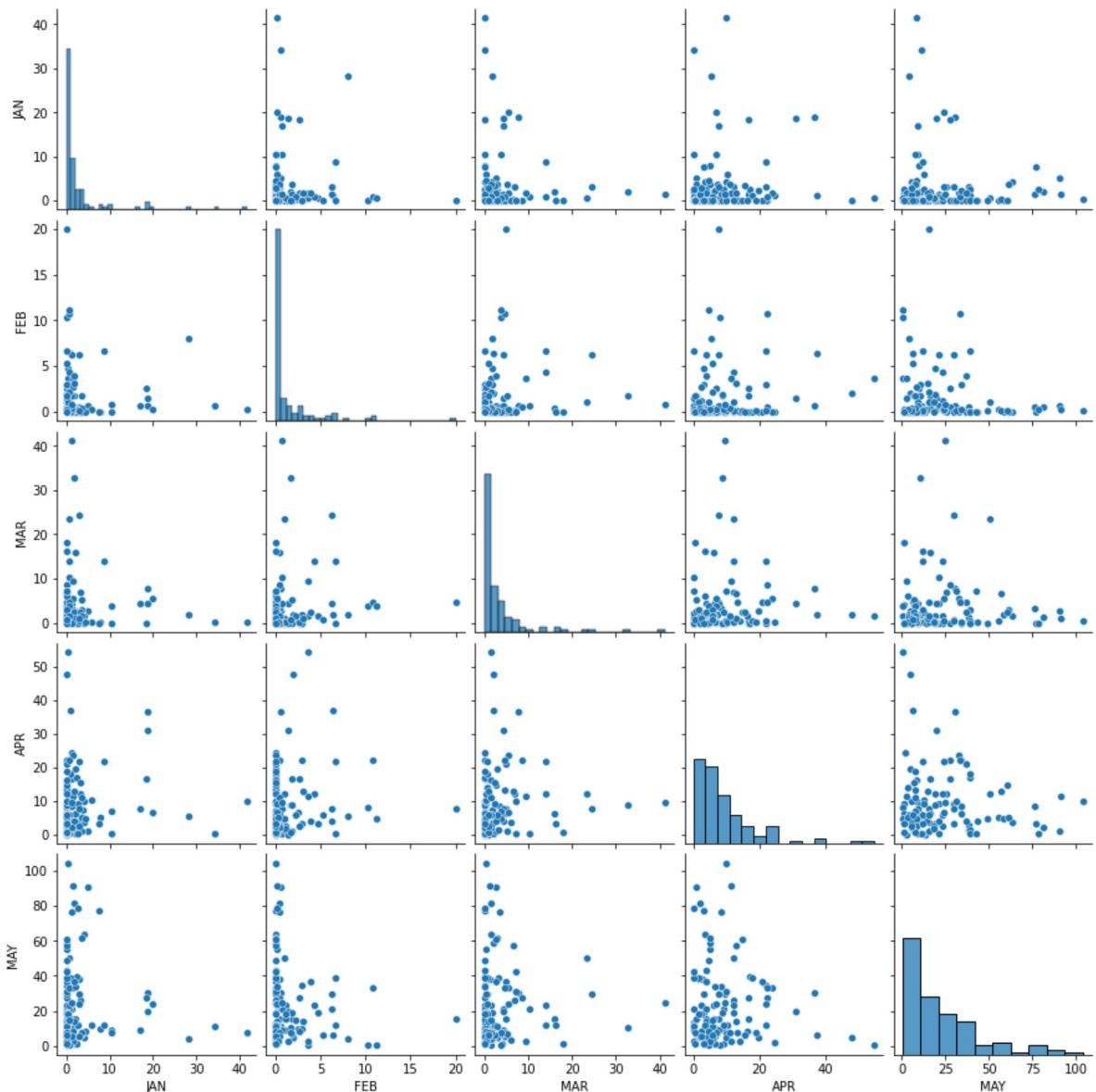
In [334]:

Out[334]: <AxesSubplot:>



In [335]:

Out[335]: <seaborn.axisgrid.PairGrid at 0x2278fdc17f0>

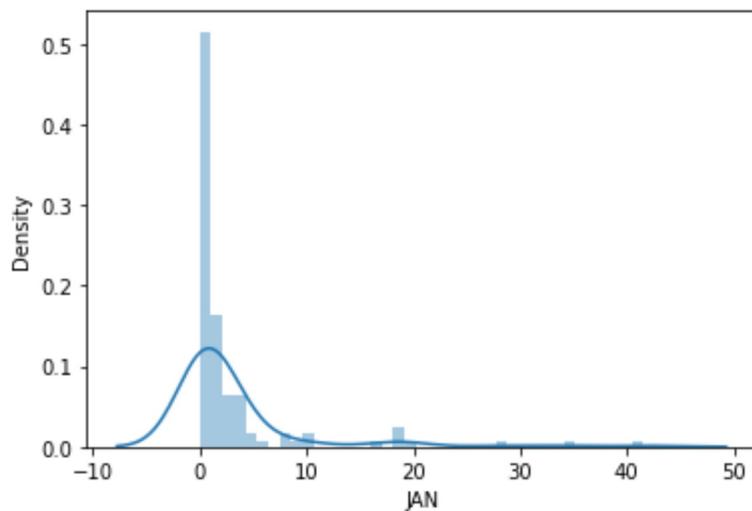


In [336]:

```
C:\ProgramData\Anaconda3\lib\site-packages\seaborn\distributions.py:2557: FutureWarning: `distplot` is a deprecated function and will be removed in a future version. Please adapt your code to use either `displot` (a figure-level function with similar flexibility) or `histplot` (an axes-level function for histograms).
```

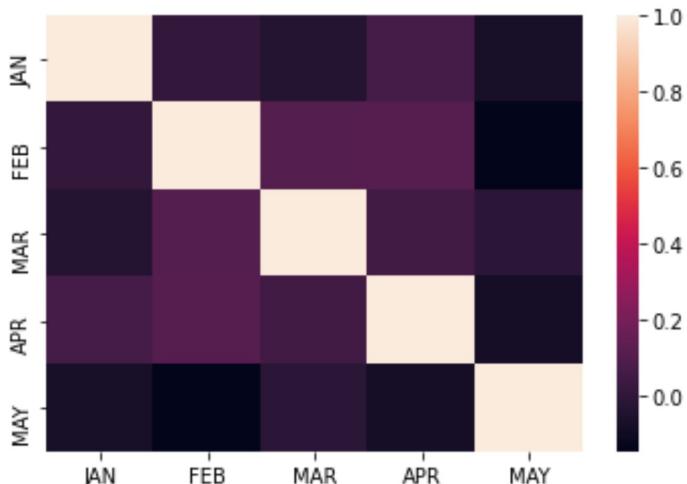
```
    warnings.warn(msg, FutureWarning)
```

Out[336]: <AxesSubplot:xlabel='JAN', ylabel='Density'>



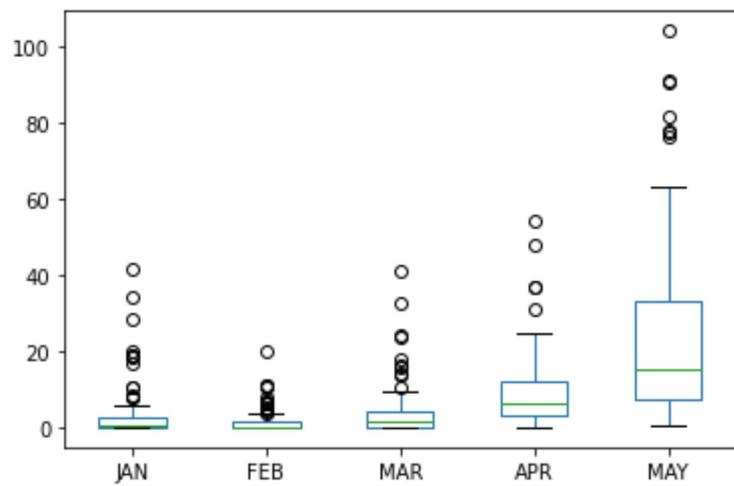
In [337]:

Out[337]: <AxesSubplot:>



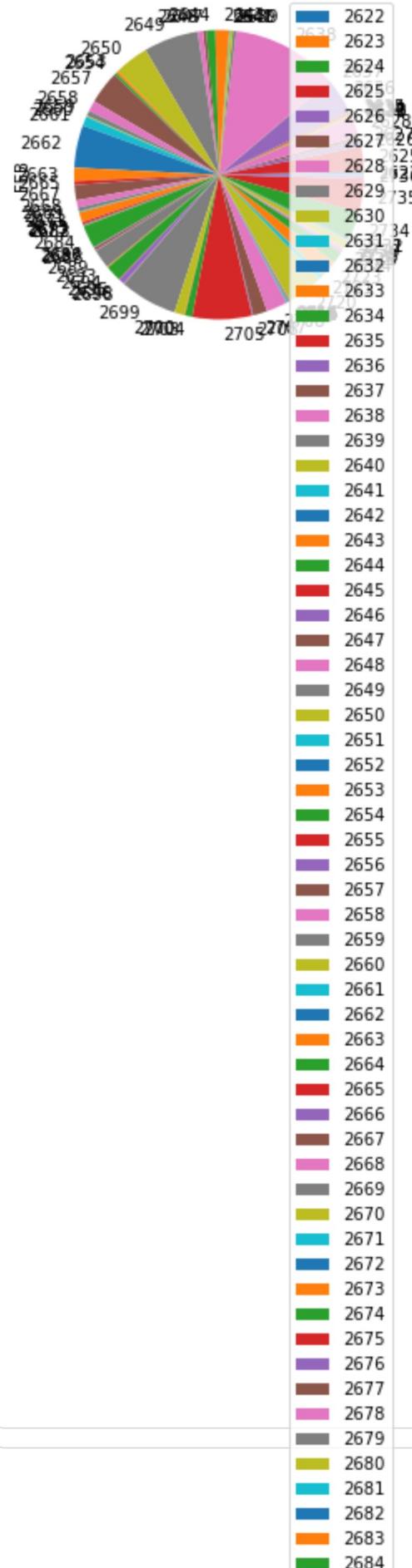
In [338]:

Out[338]: <AxesSubplot:>



In [339]:

Out[339]: <AxesSubplot:ylabel='FEB'>



In []:

