

```
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 1901-20
```

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')
```

ANDAMAN & NICOBAR ISLANDS

In [5]: c=a.head(110)

Out[5]:

	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	3	1	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	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	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	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
...
105	105	ANDAMAN & NICOBAR ISLANDS	2011	265.9	84.8	272.8	111.4	326.5	383.2	583.2	441.5	757.1	2	2	2
106	106	ANDAMAN & NICOBAR ISLANDS	2012	119.9	45.6	30.9	55.8	533.9	458.2	317.3	369.6	868.9	2	2	2
107	107	ANDAMAN & NICOBAR ISLANDS	2013	67.1	37.6	43.0	46.3	509.3	777.0	564.8	336.7	473.6	4	4	4
108	108	ANDAMAN & NICOBAR ISLANDS	2014	41.9	8.6	0.0	11.1	238.0	416.6	467.6	321.6	412.9	4	4	4
109	109	ANDAMAN & NICOBAR ISLANDS	2015	126.8	7.6	3.1	138.2	331.9	346.4	328.9	480.0	523.3	2	2	2

110 rows × 20 columns

In [6]: `d=c[['YEAR', 'JAN', 'FEB', 'MAR']]`

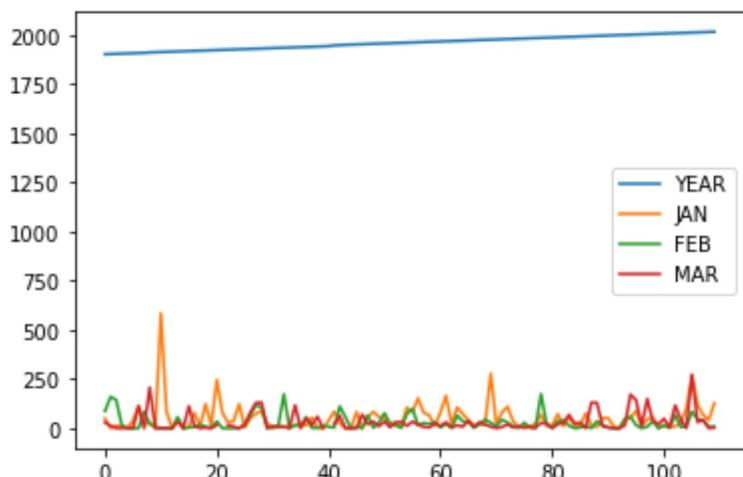
Out[6]:

	YEAR	JAN	FEB	MAR
0	1901	49.2	87.1	29.2
1	1902	0.0	159.8	12.2
2	1903	12.7	144.0	0.0
3	1904	9.4	14.7	0.0
4	1905	1.3	0.0	3.3
...
105	2011	265.9	84.8	272.8
106	2012	119.9	45.6	30.9
107	2013	67.1	37.6	43.0
108	2014	41.9	8.6	0.0
109	2015	126.8	7.6	3.1

110 rows × 4 columns

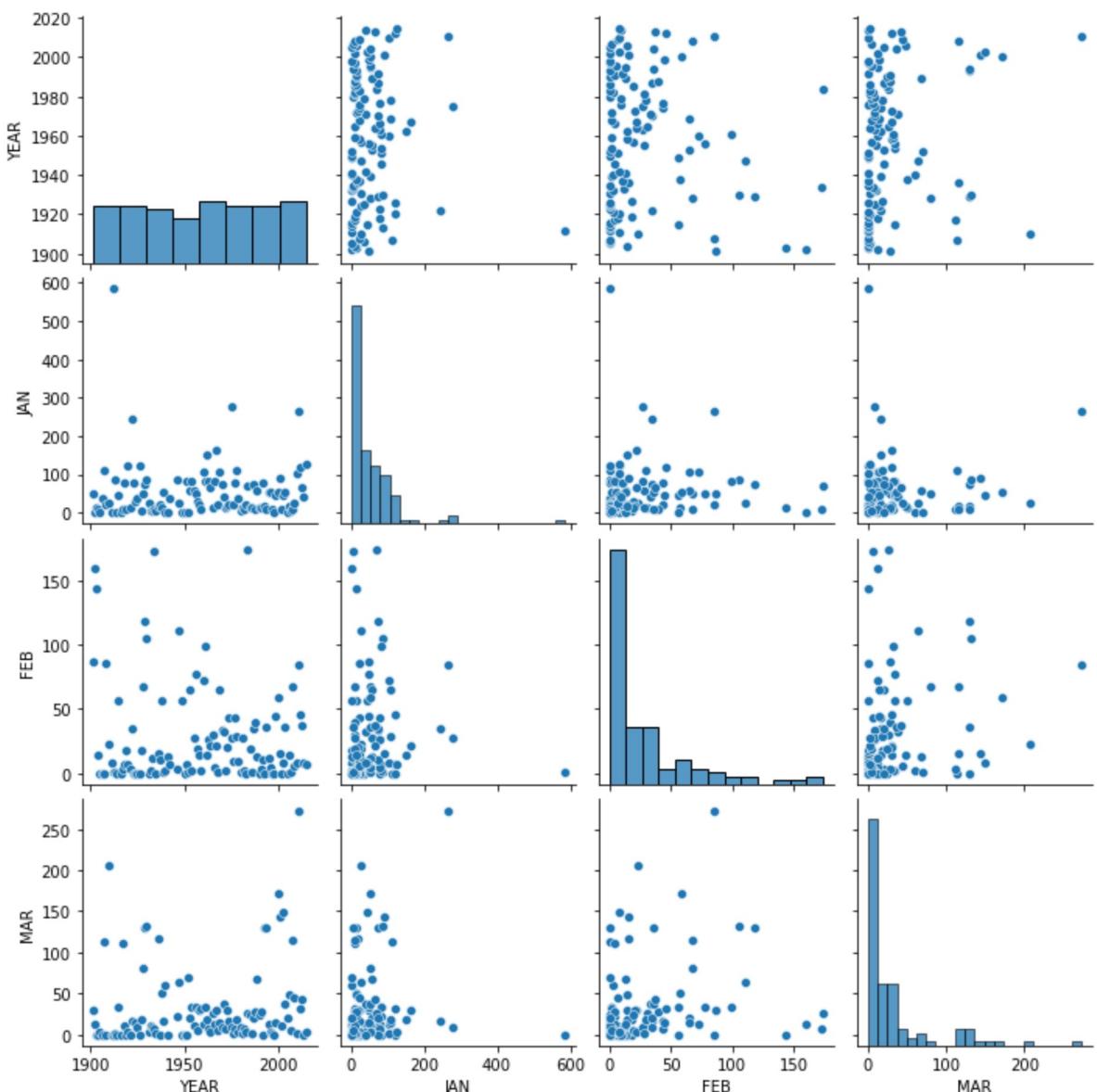
In [7]:

Out[7]: <AxesSubplot:>



In [8]:

Out[8]: <seaborn.axisgrid.PairGrid at 0x227c82e0dc0>

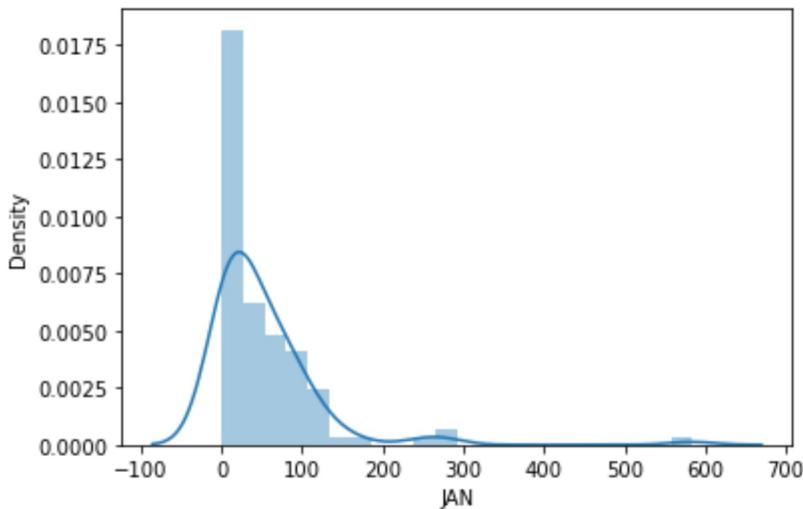


In [10]:

```
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).
```

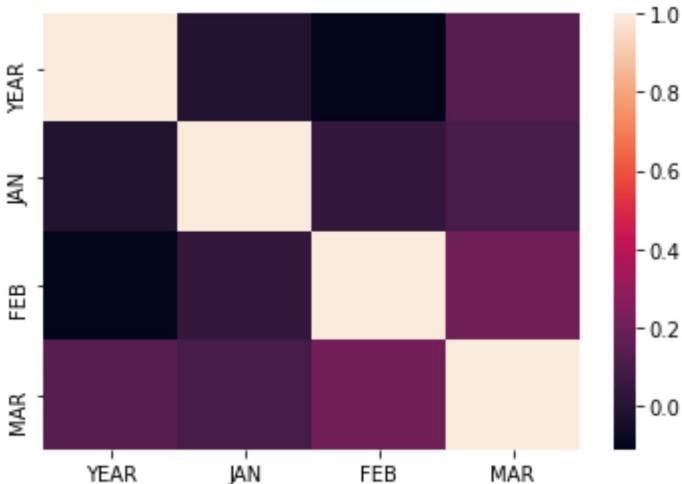
```
    warnings.warn(msg, FutureWarning)
```

Out[10]: <AxesSubplot:xlabel='JAN', ylabel='Density'>



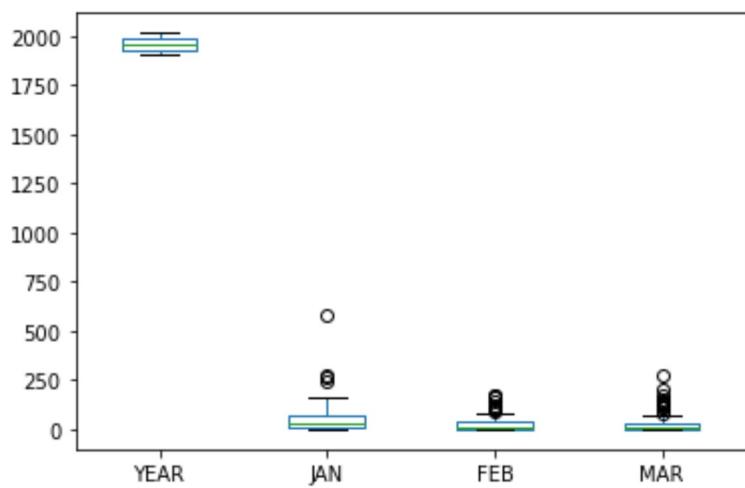
In [11]:

Out[11]: <AxesSubplot:>



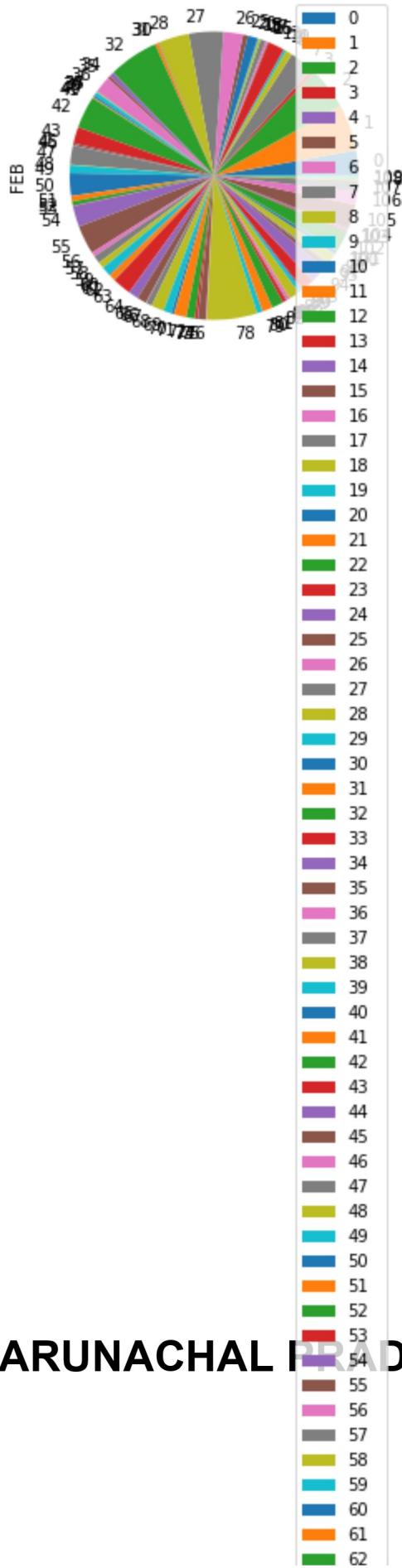
In [13]:

Out[13]: <AxesSubplot:>



In [14]:

Out[14]: <AxesSubplot:ylabel='FEB'>



In [30]: c=a.head(207)

Out[30]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	C
0	0	ANDAMAN & NICOBAR ISLANDS	1901	49.2	87.1	29.2	2.3	528.8	517.5	365.1	481.1	332.6	38
1	1	ANDAMAN & NICOBAR ISLANDS	1902	0.0	159.8	12.2	0.0	446.1	537.1	228.9	753.7	666.2	19
2	2	ANDAMAN & NICOBAR ISLANDS	1903	12.7	144.0	0.0	1.0	235.1	479.9	728.4	326.7	339.0	18
3	3	ANDAMAN & NICOBAR ISLANDS	1904	9.4	14.7	0.0	202.4	304.5	495.1	502.0	160.1	820.4	22
4	4	ANDAMAN & NICOBAR ISLANDS	1905	1.3	0.0	3.3	26.9	279.5	628.7	368.7	330.5	297.0	26
...
202	202	ARUNACHAL PRADESH	2011	40.0	51.3	174.5	240.8	219.6	288.4	531.4	277.6	286.7	5
203	203	ARUNACHAL PRADESH	2012	57.8	35.8	134.2	403.4	187.4	645.8	638.9	316.0	724.9	24
204	204	ARUNACHAL PRADESH	2013	18.5	40.5	115.1	175.1	335.8	290.0	329.6	230.2	316.1	16
205	205	ARUNACHAL PRADESH	2014	19.0	101.9	80.3	86.7	299.0	415.8	392.4	599.6	343.0	3
206	206	ARUNACHAL PRADESH	2015	30.8	47.5	97.5	287.1	238.9	637.9	329.3	595.5	374.2	6

207 rows × 20 columns

In [42]: `d=c.tail(97)`

Out[42]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
110	110	ARUNACHAL PRADESH	1916	48.1	69.8	71.1	316.1	424.6	1124.9	NaN	629.7	333.9
111	111	ARUNACHAL PRADESH	1917	21.4	164.5	NaN	269.6	107.9	823.8	909.1	628.4	411.5
112	112	ARUNACHAL PRADESH	1918	10.4	11.0	191.2	144.6	861.1	1609.9	1303.0	692.6	515.8
113	113	ARUNACHAL PRADESH	1919	34.5	67.8	28.5	256.9	420.6	973.6	999.0	286.7	628.7
114	114	ARUNACHAL PRADESH	1920	14.0	196.3	605.6	364.7	173.6	840.6	535.4	896.5	376.7
...
202	202	ARUNACHAL PRADESH	2011	40.0	51.3	174.5	240.8	219.6	288.4	531.4	277.6	286.7
203	203	ARUNACHAL PRADESH	2012	57.8	35.8	134.2	403.4	187.4	645.8	638.9	316.0	724.9
204	204	ARUNACHAL PRADESH	2013	18.5	40.5	115.1	175.1	335.8	290.0	329.6	230.2	316.1
205	205	ARUNACHAL PRADESH	2014	19.0	101.9	80.3	86.7	299.0	415.8	392.4	599.6	343.0
206	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 [43]: `e=d[['JAN', 'FEB', 'MAR']]`

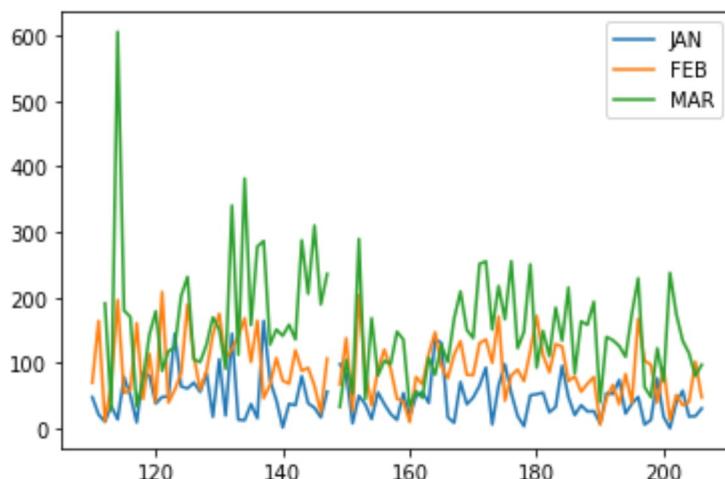
Out[43]:

	JAN	FEB	MAR
110	48.1	69.8	71.1
111	21.4	164.5	NaN
112	10.4	11.0	191.2
113	34.5	67.8	28.5
114	14.0	196.3	605.6
...
202	40.0	51.3	174.5
203	57.8	35.8	134.2
204	18.5	40.5	115.1
205	19.0	101.9	80.3
206	30.8	47.5	97.5

97 rows × 3 columns

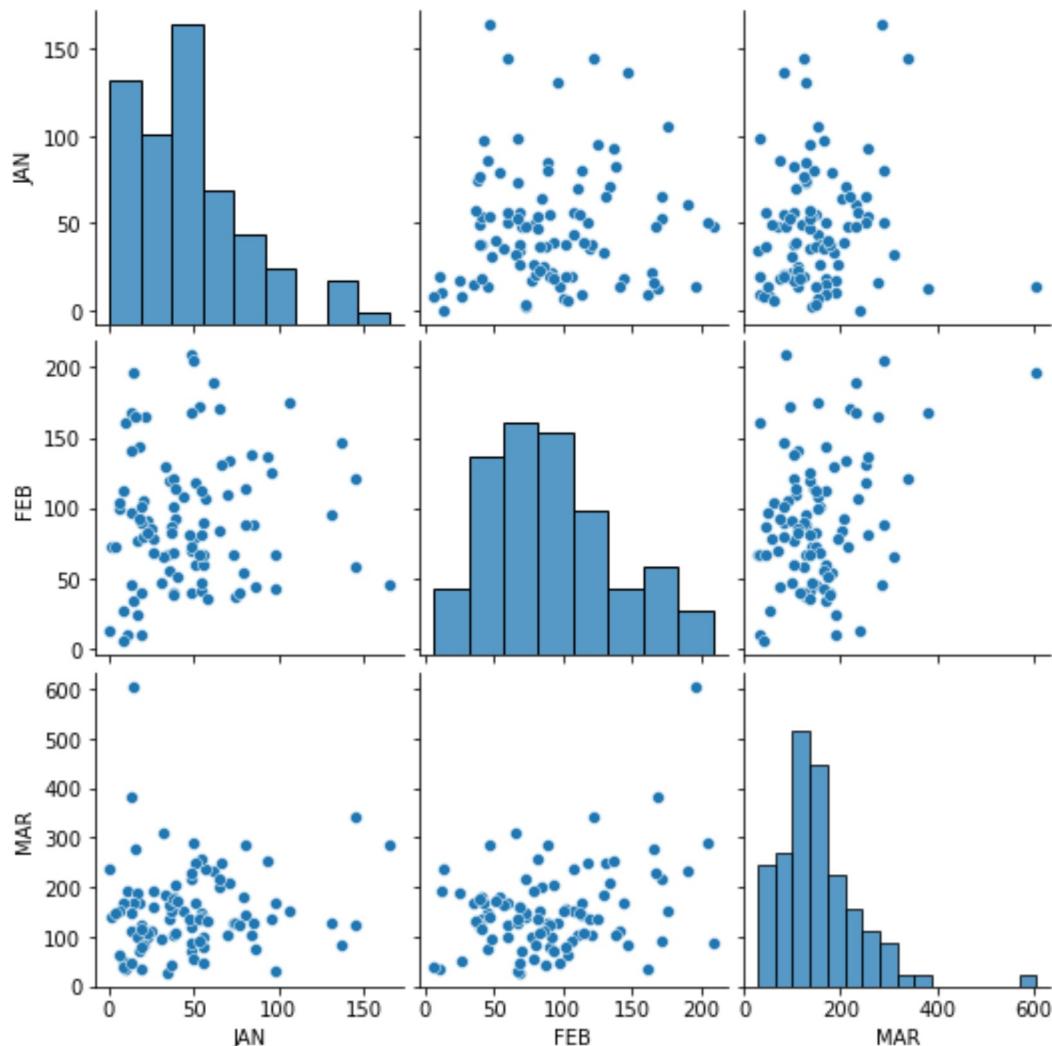
In [44]:

Out[44]: <AxesSubplot:>



In [45]:

Out[45]: <seaborn.axisgrid.PairGrid at 0x227dbda1910>

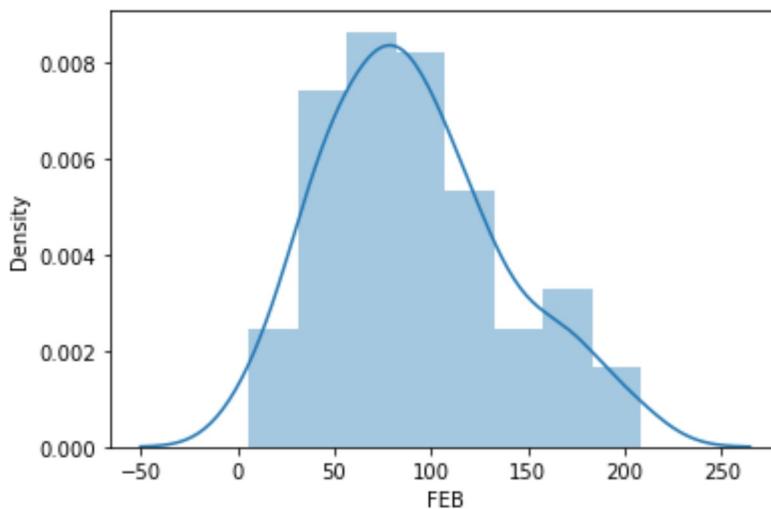


In [46]:

```
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).
```

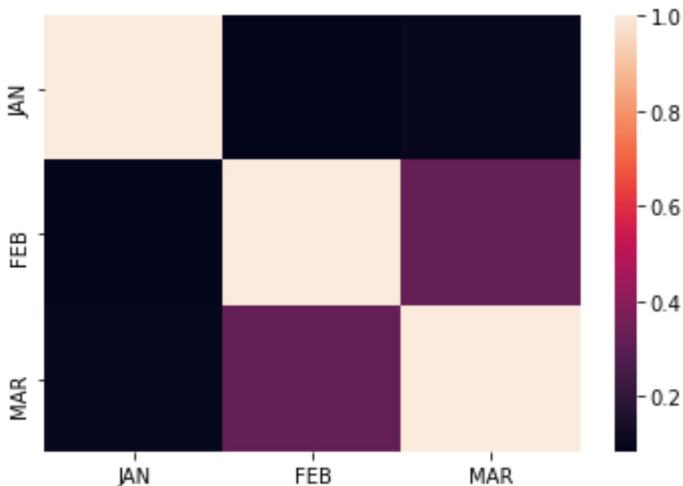
```
    warnings.warn(msg, FutureWarning)
```

Out[46]: <AxesSubplot:xlabel='FEB', ylabel='Density'>



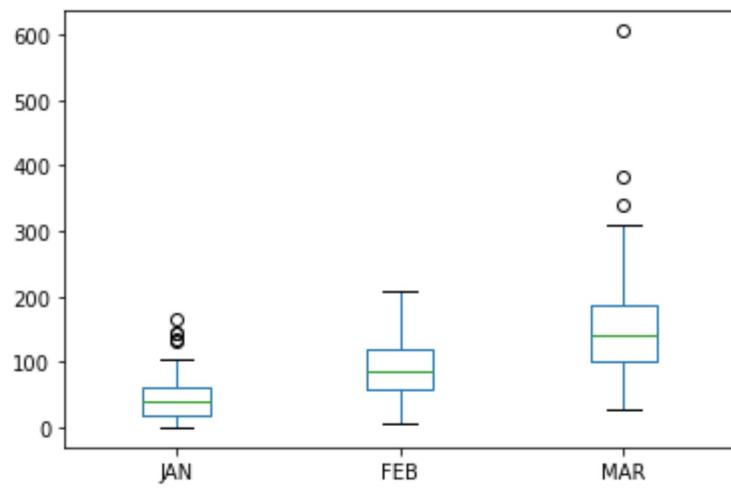
In [47]:

Out[47]: <AxesSubplot:>



In [48]:

Out[48]: <AxesSubplot:>



In [49]:

Out[49]: <AxesSubplot:ylabel='MAR'>



ASSAM & MEGHALAYA

In [50]: c=a.head(322)

Out[50]:

index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	C
0	ANDAMAN & NICOBAR ISLANDS	1901	49.2	87.1	29.2	2.3	528.8	517.5	365.1	481.1	332.6	38
1	ANDAMAN & NICOBAR ISLANDS	1902	0.0	159.8	12.2	0.0	446.1	537.1	228.9	753.7	666.2	19
2	ANDAMAN & NICOBAR ISLANDS	1903	12.7	144.0	0.0	1.0	235.1	479.9	728.4	326.7	339.0	18
3	ANDAMAN & NICOBAR ISLANDS	1904	9.4	14.7	0.0	202.4	304.5	495.1	502.0	160.1	820.4	22
4	ANDAMAN & NICOBAR ISLANDS	1905	1.3	0.0	3.3	26.9	279.5	628.7	368.7	330.5	297.0	26
...
317	ASSAM & MEGHALAYA	2011	11.1	11.4	109.0	92.1	238.3	316.0	395.8	302.6	221.6	3
318	ASSAM & MEGHALAYA	2012	15.2	6.9	28.8	279.1	185.8	729.7	444.3	289.2	411.6	19
319	ASSAM & MEGHALAYA	2013	1.1	9.6	44.0	112.8	346.7	286.2	367.8	289.7	229.3	12
320	ASSAM & MEGHALAYA	2014	2.0	28.3	29.3	51.5	351.1	426.4	374.4	484.6	420.2	3
321	ASSAM & MEGHALAYA	2015	13.4	15.5	37.5	250.9	332.5	558.5	300.1	590.9	279.9	6
322	rows x 20 columns											
		109										
		110										
		111										
		112										
		113										
		114										
		115										
		116										
		117										
		118										
		119										
		120										
		121										
		122										
		123										
		124										
		125										
		126										

In [51]: d=c.tail(115)

Out[51]:

		SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
207	133	ASSAM & MEGHALAYA	1901	27.1	19.5	30.6	223.0	207.0	524.9	430.6	464.1	291.4	163
208	134	ASSAM & MEGHALAYA	1902	9.3	10.2	105.6	350.0	262.1	620.7	510.8	536.0	441.3	97
209	135	ASSAM & MEGHALAYA	1903	19.9	25.4	103.6	140.6	206.6	607.4	362.7	551.9	306.4	159
210	136	ASSAM & MEGHALAYA	1904	11.1	56.1	51.9	457.1	375.2	385.7	477.6	438.8	245.9	115
211	137	ASSAM & MEGHALAYA	1905	19.9	16.9	137.9	213.0	275.5	521.7	439.1	649.1	276.0	200
...	138	ASSAM & MEGHALAYA
317	317	ASSAM & MEGHALAYA	2011	11.1	11.4	109.0	92.1	238.3	316.0	395.8	302.6	221.6	30
318	318	ASSAM & MEGHALAYA	2012	15.2	6.9	28.8	279.1	185.8	729.7	444.3	289.2	411.6	199
319	319	ASSAM & MEGHALAYA	2013	1.1	9.6	44.0	112.8	346.7	286.2	367.8	289.7	229.3	126
320	320	ASSAM & MEGHALAYA	2014	2.0	28.3	29.3	51.5	351.1	426.4	374.4	484.6	420.2	35
321	321	ASSAM & MEGHALAYA	2015	13.4	15.5	37.5	250.9	332.5	558.5	300.1	590.9	279.9	62

115 rows × 20 columns

In [53]: e=d[['JAN', 'FEB', 'MAR','APR','MAY']]

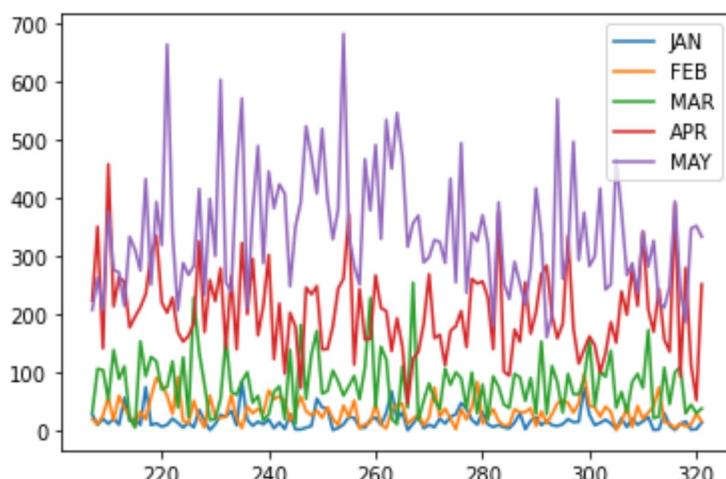
Out[53]:

	JAN	FEB	MAR	APR	MAY
207	27.1	19.5	30.6	223.0	207.0
208	9.3	10.2	105.6	350.0	262.1
209	19.9	25.4	103.6	140.6	206.6
210	11.1	56.1	51.9	457.1	375.2
211	19.9	16.9	137.9	213.0	275.5
...
317	11.1	11.4	109.0	92.1	238.3
318	15.2	6.9	28.8	279.1	185.8
319	1.1	9.6	44.0	112.8	346.7
320	2.0	28.3	29.3	51.5	351.1
321	13.4	15.5	37.5	250.9	332.5

115 rows × 5 columns

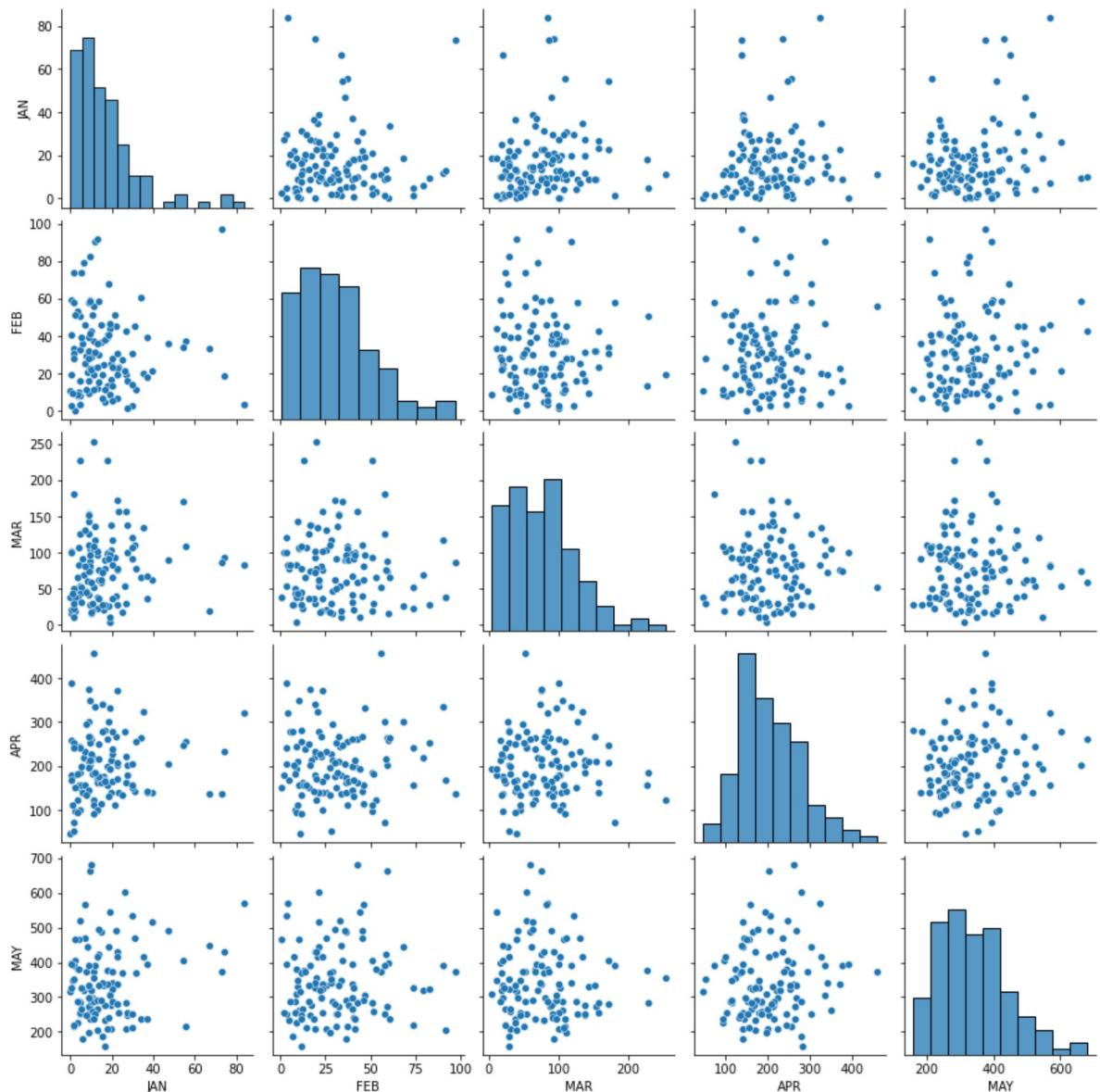
In [54]:

Out[54]: <AxesSubplot:>



In [55]:

Out[55]: <seaborn.axisgrid.PairGrid at 0x227dde62f40>

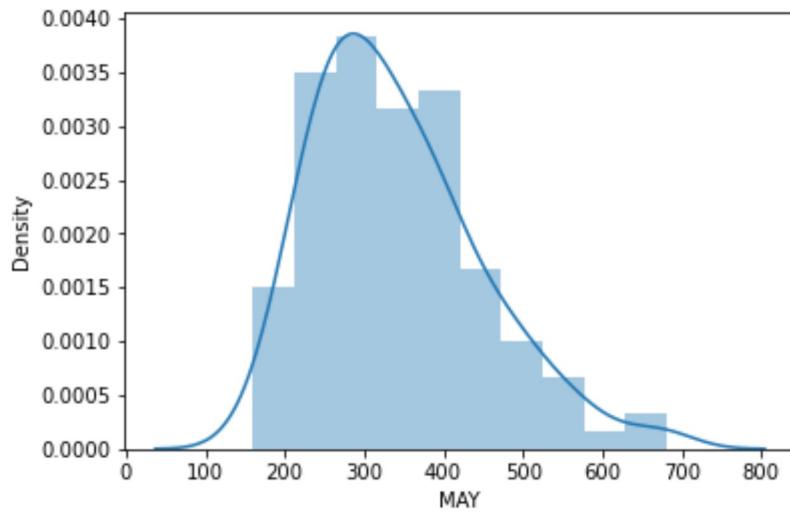


In [56]:

```
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).
```

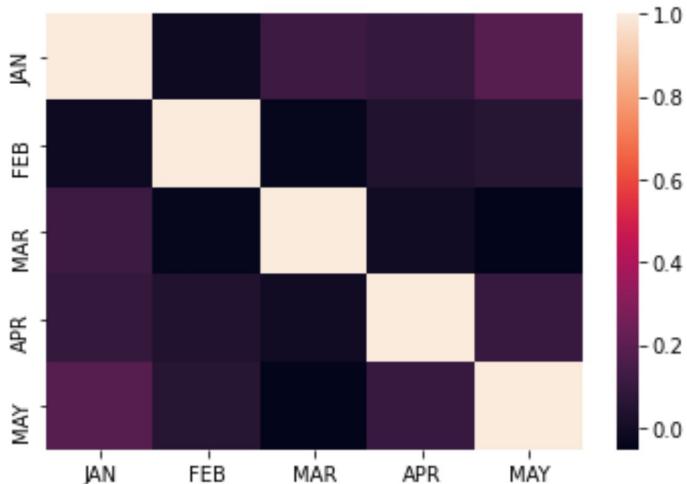
```
    warnings.warn(msg, FutureWarning)
```

Out[56]: <AxesSubplot:xlabel='MAY', ylabel='Density'>



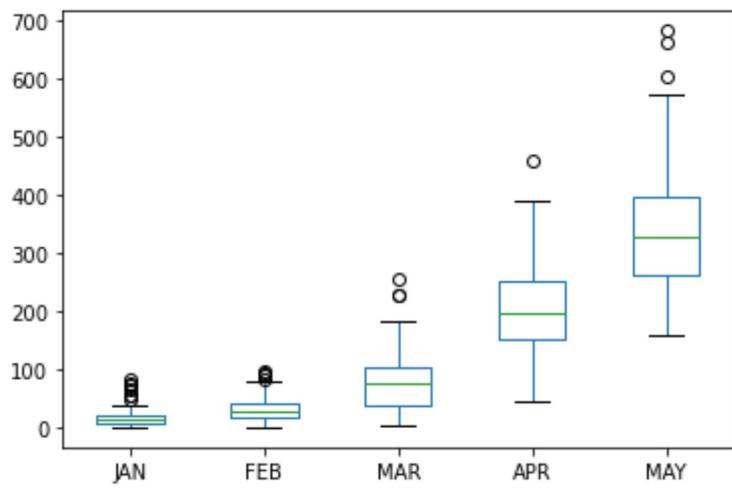
In [59]:

Out[59]: <AxesSubplot:>



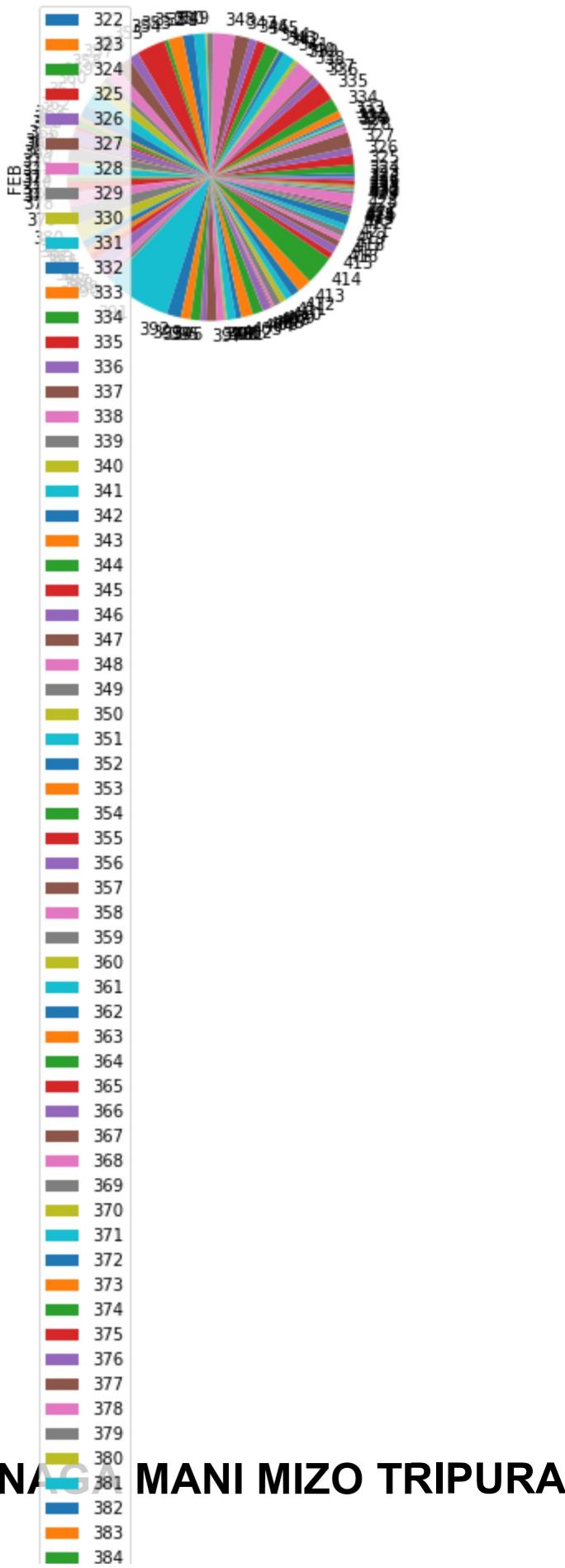
In [60]:

Out[60]: <AxesSubplot:>



In [78]:

Out[78]: <AxesSubplot:ylabel='FEB'>



In [79]: `c=a.head(437)`

Out[79]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	O
0	0	ANDAMAN & NICOBAR ISLANDS	1901	49.2	87.1	29.2	2.3	528.8	517.5	365.1	481.1	332.6	38
1	1	ANDAMAN & NICOBAR ISLANDS	1902	0.0	159.8	12.2	0.0	446.1	537.1	228.9	753.7	666.2	19
2	2	ANDAMAN & NICOBAR ISLANDS	1903	12.7	144.0	0.0	1.0	235.1	479.9	728.4	326.7	339.0	18
3	3	ANDAMAN & NICOBAR ISLANDS	1904	9.4	14.7	0.0	202.4	304.5	495.1	502.0	160.1	820.4	22
4	4	ANDAMAN & NICOBAR ISLANDS	1905	1.3	0.0	3.3	26.9	279.5	628.7	368.7	330.5	297.0	26
...
432	432	NAGA MANI MIZO TRIPURA	2011	12.6	3.6	51.4	81.1	334.9	374.2	313.3	367.6	258.3	9
433	433	NAGA MANI MIZO TRIPURA	2012	24.5	10.2	20.3	243.5	163.5	396.2	280.1	342.7	248.7	16
434	434	NAGA MANI MIZO TRIPURA	2013	0.2	5.7	19.7	60.3	348.9	206.6	255.9	291.3	241.4	12
435	435	NAGA MANI MIZO TRIPURA	2014	1.2	21.0	25.4	49.6	192.5	268.3	295.7	372.3	300.9	6
436	436	NAGA MANI MIZO TRIPURA	2015	14.4	14.2	21.6	253.5	198.3	283.9	413.6	334.2	255.9	11

437 rows × 20 columns

In [80]: `d=c.tail(115)`

Out[80]:

		index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
322	322		NAGA MANI MIZO TRIPURA	1901	11.7	18.1	29.4	206.2	124.0	443.3	331.4	466.0	304.1	166
323	323		NAGA MANI MIZO TRIPURA	1902	4.8	0.5	36.3	297.8	215.5	480.1	392.4	312.8	318.7	102
324	324		NAGA MANI MIZO TRIPURA	1903	6.5	40.5	139.8	45.5	159.9	458.6	300.2	470.6	366.1	166
325	325		NAGA MANI MIZO TRIPURA	1904	2.3	46.9	47.5	290.3	230.5	455.3	423.5	423.6	375.8	126
326	326		NAGA MANI MIZO TRIPURA	1905	9.1	35.3	306.5	161.7	193.6	339.7	450.1	429.9	320.1	246
...
432	432		NAGA MANI MIZO TRIPURA	2011	12.6	3.6	51.4	81.1	334.9	374.2	313.3	367.6	258.3	92
433	433		NAGA MANI MIZO TRIPURA	2012	24.5	10.2	20.3	243.5	163.5	396.2	280.1	342.7	248.7	160
434	434		NAGA MANI MIZO TRIPURA	2013	0.2	5.7	19.7	60.3	348.9	206.6	255.9	291.3	241.4	125
435	435		NAGA MANI MIZO TRIPURA	2014	1.2	21.0	25.4	49.6	192.5	268.3	295.7	372.3	300.9	65
436	436		NAGA MANI MIZO TRIPURA	2015	14.4	14.2	21.6	253.5	198.3	283.9	413.6	334.2	255.9	118

115 rows × 20 columns

In [81]: `e=d[['JAN', 'FEB', 'MAR','APR','MAY']]`

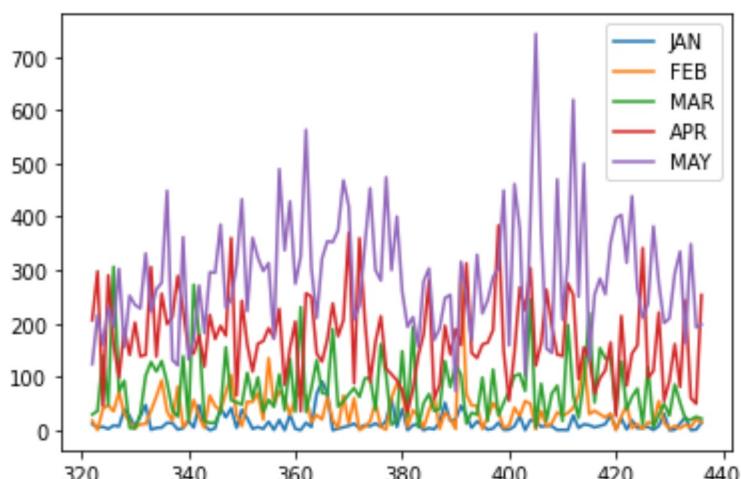
Out[81]:

	JAN	FEB	MAR	APR	MAY
322	11.7	18.1	29.4	206.2	124.0
323	4.8	0.5	36.3	297.8	215.5
324	6.5	40.5	139.8	45.5	159.9
325	2.3	46.9	47.5	290.3	230.5
326	9.1	35.3	306.5	161.7	193.6
...
432	12.6	3.6	51.4	81.1	334.9
433	24.5	10.2	20.3	243.5	163.5
434	0.2	5.7	19.7	60.3	348.9
435	1.2	21.0	25.4	49.6	192.5
436	14.4	14.2	21.6	253.5	198.3

115 rows × 5 columns

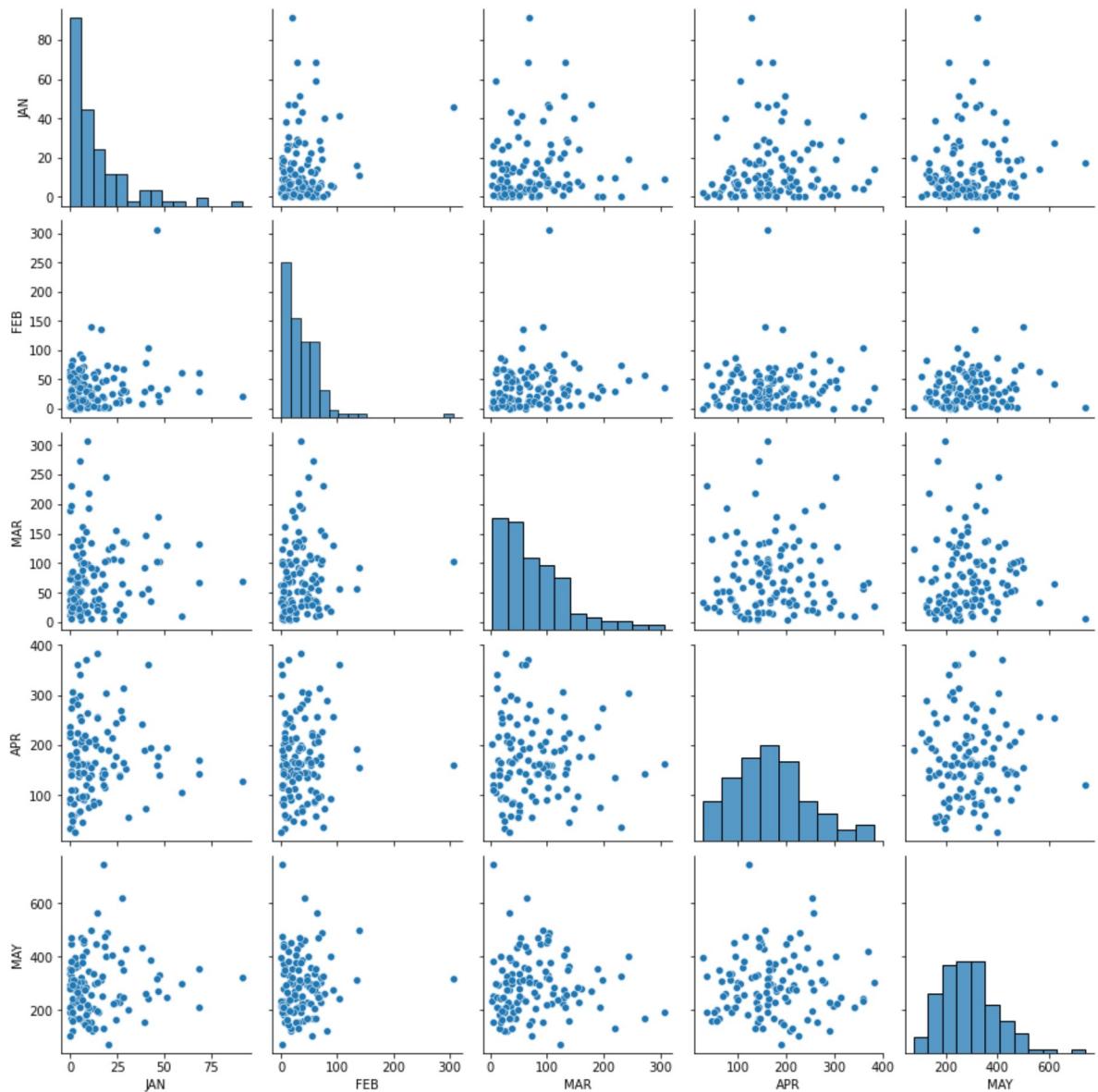
In [82]:

Out[82]: <AxesSubplot:>



In [83]:

Out[83]: <seaborn.axisgrid.PairGrid at 0x227e3eace80>

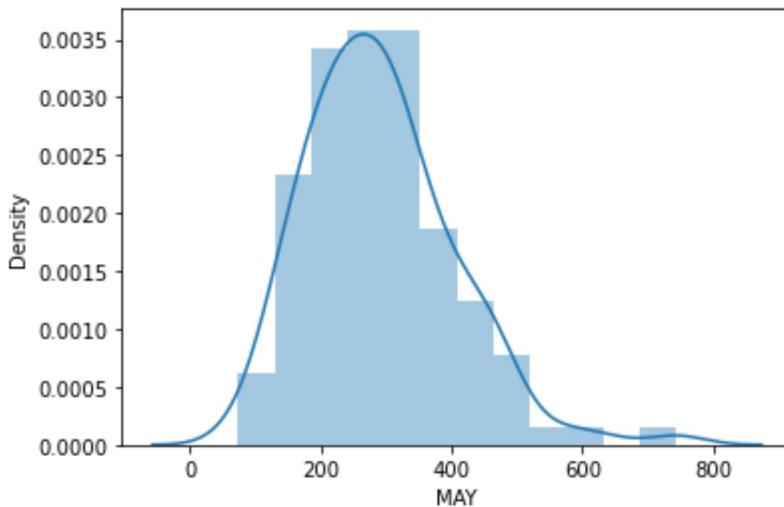


In [84]:

```
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).
```

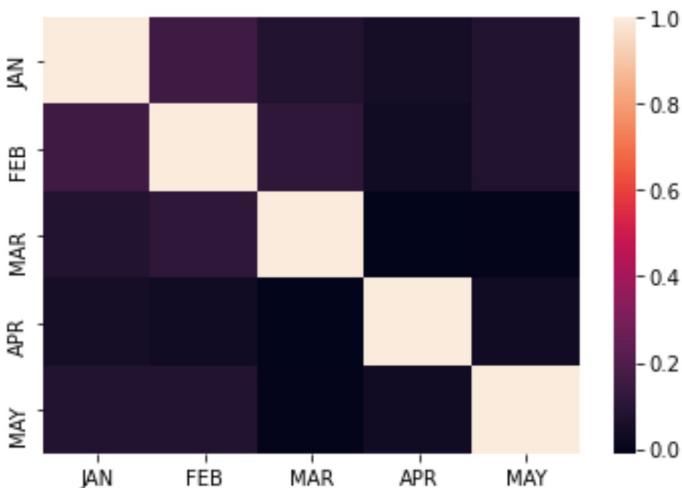
```
    warnings.warn(msg, FutureWarning)
```

Out[84]: <AxesSubplot:xlabel='MAY', ylabel='Density'>



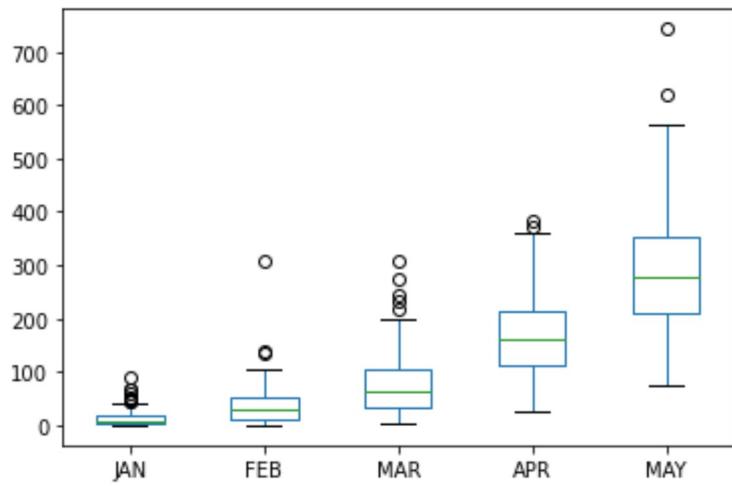
In [85]:

Out[85]: <AxesSubplot:>



In [86]:

Out[86]: <AxesSubplot:>



In [87]:

Out[87]: <AxesSubplot:ylabel='FEB'>



In [88]: `c=a.head(552)`

Out[88]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	O
0	0	ANDAMAN & NICOBAR ISLANDS	1901	49.2	87.1	29.2	2.3	528.8	517.5	365.1	481.1	332.6	38
1	1	ANDAMAN & NICOBAR ISLANDS	1902	0.0	159.8	12.2	0.0	446.1	537.1	228.9	753.7	666.2	19
2	2	ANDAMAN & NICOBAR ISLANDS	1903	12.7	144.0	0.0	1.0	235.1	479.9	728.4	326.7	339.0	18
3	3	ANDAMAN & NICOBAR ISLANDS	1904	9.4	14.7	0.0	202.4	304.5	495.1	502.0	160.1	820.4	22
4	4	ANDAMAN & NICOBAR ISLANDS	1905	1.3	0.0	3.3	26.9	279.5	628.7	368.7	330.5	297.0	26
...
547	547	SUB HIMALAYAN WEST BENGAL & SIKKIM	2011	8.5	19.9	71.2	135.0	247.8	419.8	612.3	470.3	356.3	4
548	548	SUB HIMALAYAN WEST BENGAL & SIKKIM	2012	15.3	13.9	45.5	159.8	202.4	604.2	684.5	332.7	434.7	11
549	549	SUB HIMALAYAN WEST BENGAL & SIKKIM	2013	3.0	23.6	32.1	114.7	296.5	404.9	588.4	416.3	308.0	19
550	550	SUB HIMALAYAN WEST BENGAL & SIKKIM	2014	0.2	26.6	37.7	47.9	308.6	543.2	384.6	563.3	371.5	3
551	551	SUB HIMALAYAN WEST BENGAL & SIKKIM	2015	15.7	15.0	64.8	149.0	304.6	508.2	393.3	626.6	354.9	5

552 rows × 20 columns

In [89]: `d=c.tail(115)`

Out[89]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	O
437	437	SUB HIMALAYAN WEST BENGAL & SIKKIM	1901	26.5	14.8	14.1	29.2	195.5	488.4	524.8	501.1	242.7	5
438	438	SUB HIMALAYAN WEST BENGAL & SIKKIM	1902	1.2	0.7	87.1	126.1	271.3	539.2	671.0	603.8	799.9	7
439	439	SUB HIMALAYAN WEST BENGAL & SIKKIM	1903	5.5	8.7	19.6	18.6	163.6	541.2	431.5	708.8	365.2	14
440	440	SUB HIMALAYAN WEST BENGAL & SIKKIM	1904	3.4	29.2	0.9	124.3	333.6	274.2	500.4	468.5	260.6	16
441	441	SUB HIMALAYAN WEST BENGAL & SIKKIM	1905	12.0	31.2	51.9	104.4	290.6	524.8	523.1	1036.6	321.1	8
...
547	547	SUB HIMALAYAN WEST BENGAL & SIKKIM	2011	8.5	19.9	71.2	135.0	247.8	419.8	612.3	470.3	356.3	4
548	548	SUB HIMALAYAN WEST BENGAL & SIKKIM	2012	15.3	13.9	45.5	159.8	202.4	604.2	684.5	332.7	434.7	11
549	549	SUB HIMALAYAN WEST BENGAL & SIKKIM	2013	3.0	23.6	32.1	114.7	296.5	404.9	588.4	416.3	308.0	19
550	550	SUB HIMALAYAN WEST BENGAL & SIKKIM	2014	0.2	26.6	37.7	47.9	308.6	543.2	384.6	563.3	371.5	3
551	551	SUB HIMALAYAN WEST BENGAL & SIKKIM	2015	15.7	15.0	64.8	149.0	304.6	508.2	393.3	626.6	354.9	5

115 rows × 20 columns

In [90]: e=d[['JAN', 'FEB', 'MAR', 'APR', 'MAY']]

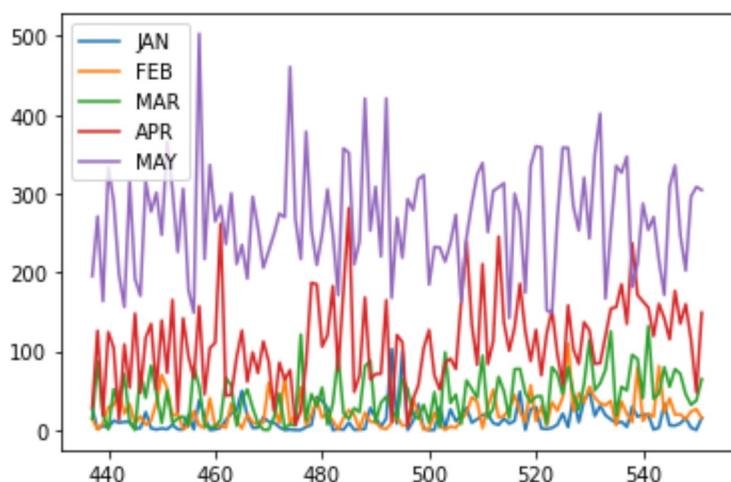
Out[90]:

	JAN	FEB	MAR	APR	MAY
437	26.5	14.8	14.1	29.2	195.5
438	1.2	0.7	87.1	126.1	271.3
439	5.5	8.7	19.6	18.6	163.6
440	3.4	29.2	0.9	124.3	333.6
441	12.0	31.2	51.9	104.4	290.6
...
547	8.5	19.9	71.2	135.0	247.8
548	15.3	13.9	45.5	159.8	202.4
549	3.0	23.6	32.1	114.7	296.5
550	0.2	26.6	37.7	47.9	308.6
551	15.7	15.0	64.8	149.0	304.6

115 rows × 5 columns

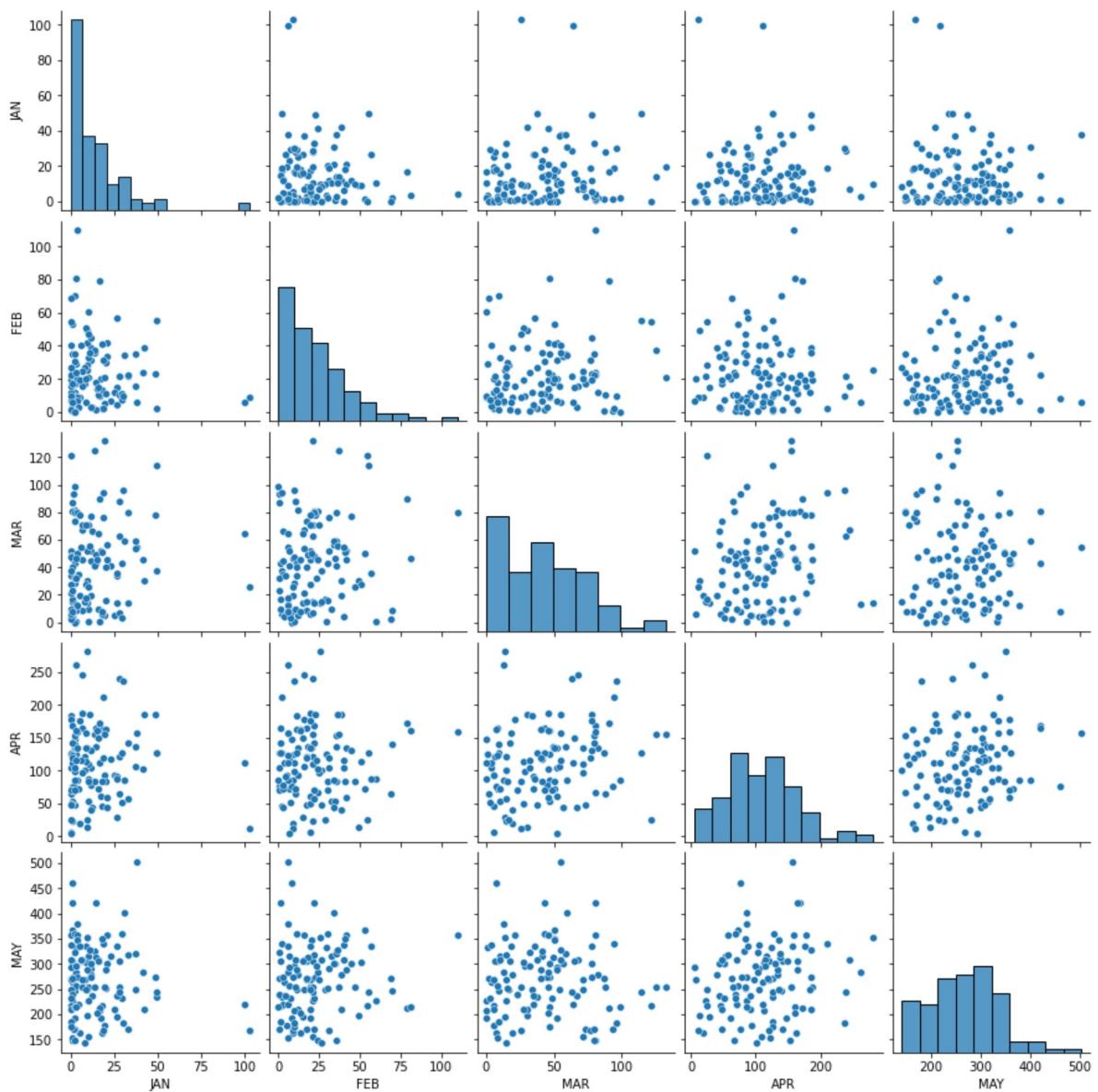
In [91]:

Out[91]: <AxesSubplot:>



In [92]:

Out[92]: <seaborn.axisgrid.PairGrid at 0x227e549e580>

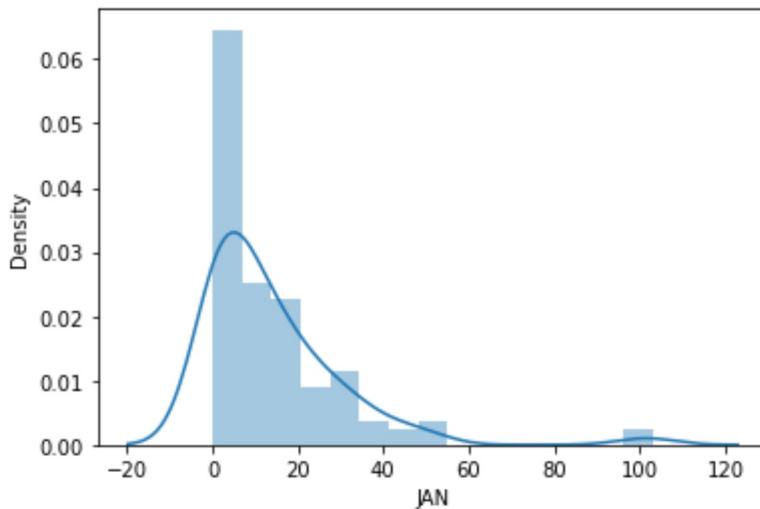


In [93]:

```
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).
```

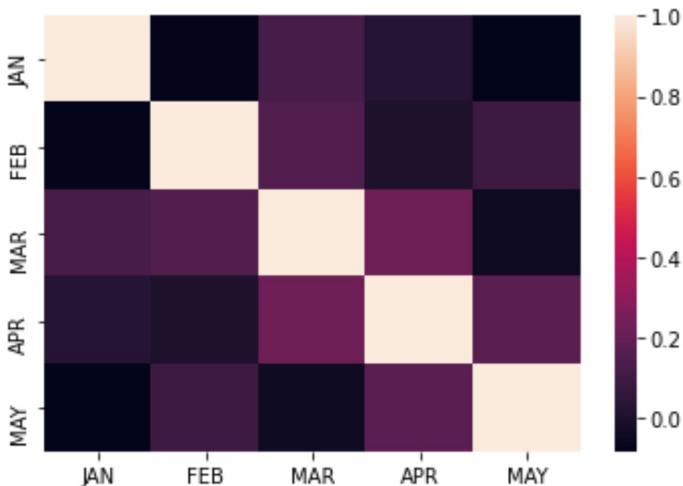
```
    warnings.warn(msg, FutureWarning)
```

Out[93]: <AxesSubplot:xlabel='JAN', ylabel='Density'>



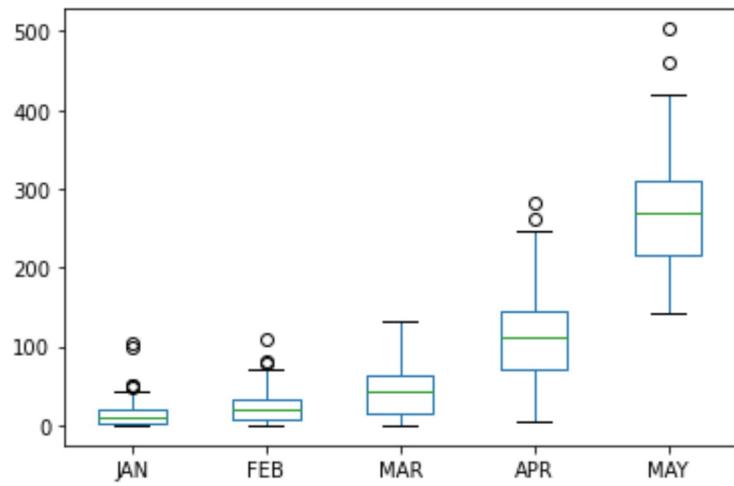
In [94]:

Out[94]: <AxesSubplot:>



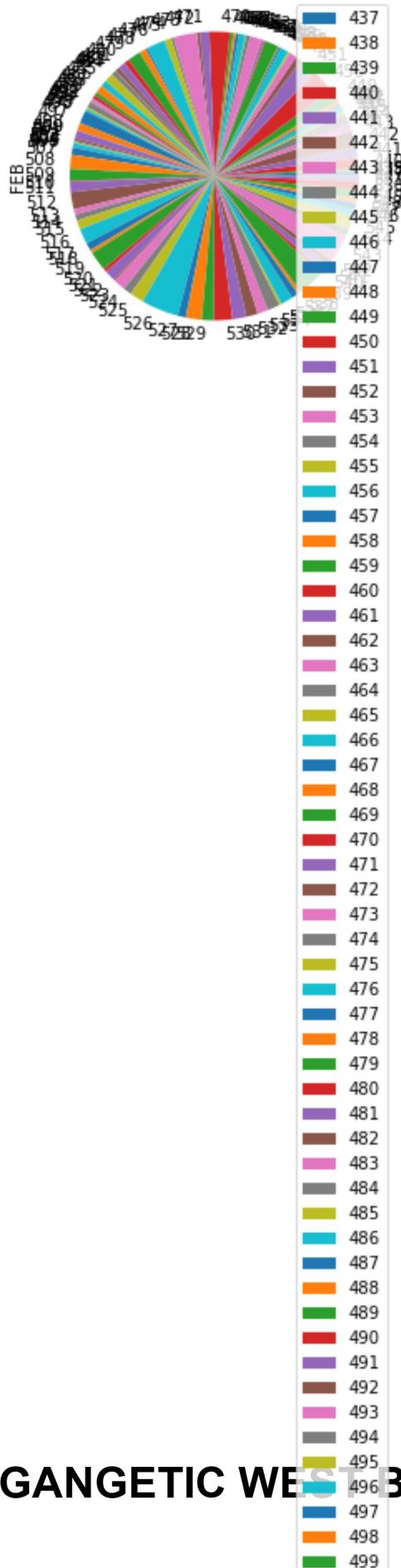
In [95]:

Out[95]: <AxesSubplot:>



In [96]:

Out[96]: <AxesSubplot:ylabel='FEB'>



In [98]: `c=a.head(667)`

Out[98]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	O
0	0	ANDAMAN & NICOBAR ISLANDS	1901	49.2	87.1	29.2	2.3	528.8	517.5	365.1	481.1	332.6	38
1	1	ANDAMAN & NICOBAR ISLANDS	1902	0.0	159.8	12.2	0.0	446.1	537.1	228.9	753.7	666.2	19
2	2	ANDAMAN & NICOBAR ISLANDS	1903	12.7	144.0	0.0	1.0	235.1	479.9	728.4	326.7	339.0	18
3	3	ANDAMAN & NICOBAR ISLANDS	1904	9.4	14.7	0.0	202.4	304.5	495.1	502.0	160.1	820.4	22
4	4	ANDAMAN & NICOBAR ISLANDS	1905	1.3	0.0	3.3	26.9	279.5	628.7	368.7	330.5	297.0	26
...
662	662	GANGETIC WEST BENGAL	2011	2.5	2.7	40.5	75.0	132.6	434.5	219.9	443.2	295.9	3
663	663	GANGETIC WEST BENGAL	2012	40.7	15.3	4.4	57.7	44.2	146.6	315.0	261.4	246.9	6
664	664	GANGETIC WEST BENGAL	2013	2.5	10.0	4.8	45.6	195.9	233.4	263.2	401.4	254.0	35
665	665	GANGETIC WEST BENGAL	2014	0.9	42.2	19.9	1.9	124.4	193.6	298.7	292.6	229.5	5
666	666	GANGETIC WEST BENGAL	2015	12.9	5.5	19.3	88.7	57.6	247.2	633.1	260.6	164.0	3

667 rows × 20 columns

In [100]: d=c.tail(116)

Out[100]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OC
551	551	SUB HIMALAYAN WEST BENGAL & SIKKIM	2015	15.7	15.0	64.8	149.0	304.6	508.2	393.3	626.6	354.9	53
552	552	GANGETIC WEST BENGAL	1901	37.1	58.4	3.9	64.1	121.7	198.0	280.8	275.7	313.5	51
553	553	GANGETIC WEST BENGAL	1902	0.0	1.2	44.2	103.8	161.6	140.9	347.8	264.8	230.5	32
554	554	GANGETIC WEST BENGAL	1903	17.5	24.6	37.3	30.6	78.5	201.7	179.6	277.6	300.7	198
555	555	GANGETIC WEST BENGAL	1904	0.1	23.9	35.6	17.5	160.2	286.7	435.3	241.7	142.8	35
...
662	662	GANGETIC WEST BENGAL	2011	2.5	2.7	40.5	75.0	132.6	434.5	219.9	443.2	295.9	36
663	663	GANGETIC WEST BENGAL	2012	40.7	15.3	4.4	57.7	44.2	146.6	315.0	261.4	246.9	64
664	664	GANGETIC WEST BENGAL	2013	2.5	10.0	4.8	45.6	195.9	233.4	263.2	401.4	254.0	353
665	665	GANGETIC WEST BENGAL	2014	0.9	42.2	19.9	1.9	124.4	193.6	298.7	292.6	229.5	56
666	666	GANGETIC WEST BENGAL	2015	12.9	5.5	19.3	88.7	57.6	247.2	633.1	260.6	164.0	32

116 rows × 20 columns

In [101]: `e=d[['JAN', 'FEB', 'MAR','APR','MAY']]`

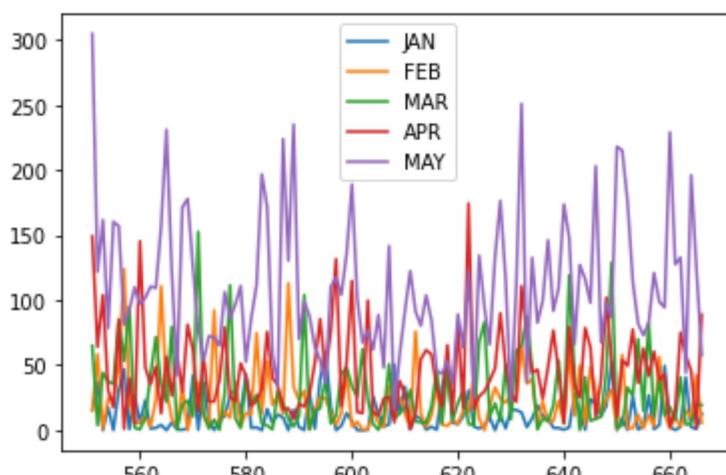
Out[101]:

	JAN	FEB	MAR	APR	MAY
551	15.7	15.0	64.8	149.0	304.6
552	37.1	58.4	3.9	64.1	121.7
553	0.0	1.2	44.2	103.8	161.6
554	17.5	24.6	37.3	30.6	78.5
555	0.1	23.9	35.6	17.5	160.2
...
662	2.5	2.7	40.5	75.0	132.6
663	40.7	15.3	4.4	57.7	44.2
664	2.5	10.0	4.8	45.6	195.9
665	0.9	42.2	19.9	1.9	124.4
666	12.9	5.5	19.3	88.7	57.6

116 rows × 5 columns

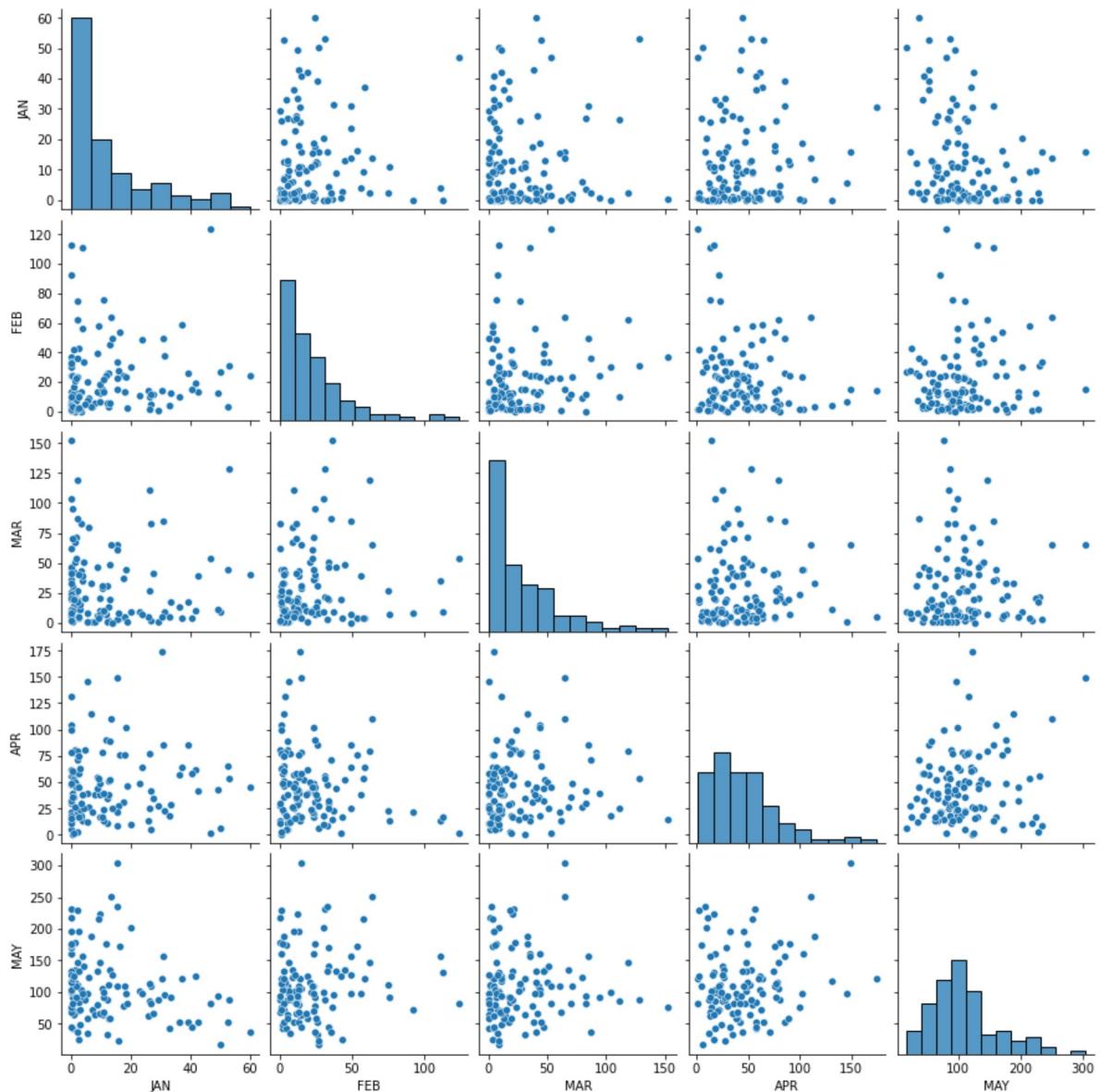
In [102]:

Out[102]: <AxesSubplot:>



In [103]:

Out[103]: <seaborn.axisgrid.PairGrid at 0x227e7bdab50>

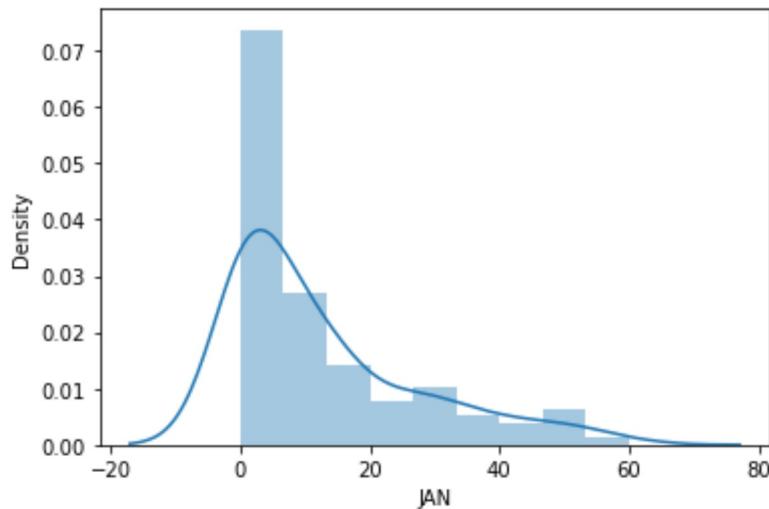


In [104]:

```
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).
```

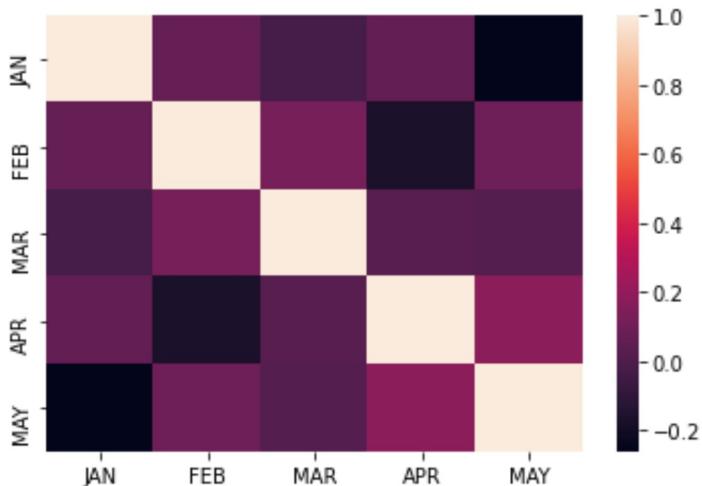
```
    warnings.warn(msg, FutureWarning)
```

Out[104]: <AxesSubplot:xlabel='JAN', ylabel='Density'>



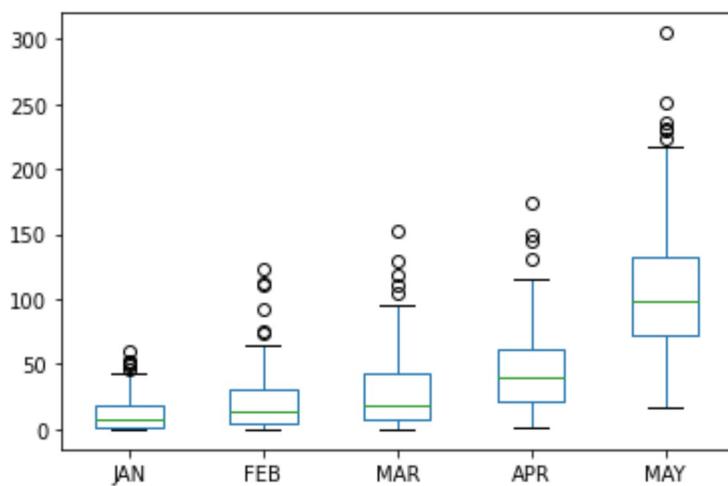
In [105]:

Out[105]: <AxesSubplot:>



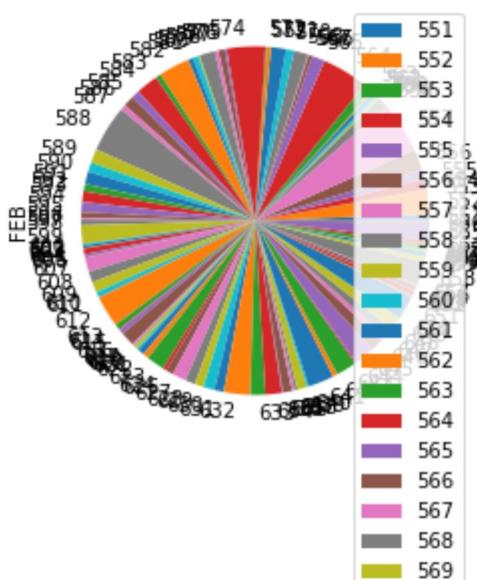
In [106]:

Out[106]: <AxesSubplot:>



In [107]:

Out[107]: <AxesSubplot:ylabel='FEB'>



In []: