

```
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 1901-2010.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')
```

TAMIL NADU

In [396]: b=a.head(3542)

Out[396]:

	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	252.1	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	196.1	196.1	196.1
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
...
3537	3537	TAMIL NADU	2011	4.3	11.2	8.0	91.5	33.4	56.0	45.5	128.9	76.0	212.1	212.1	212.1
3538	3538	TAMIL NADU	2012	3.0	0.1	2.5	35.5	41.9	30.1	46.5	98.0	84.9	212.1	212.1	212.1
3539	3539	TAMIL NADU	2013	3.9	30.9	30.0	20.3	42.0	54.6	42.7	110.7	113.5	116.1	116.1	116.1
3540	3540	TAMIL NADU	2014	7.4	6.1	8.1	8.3	139.1	47.8	50.6	117.7	98.9	212.1	212.1	212.1
3541	3541	TAMIL NADU	2015	8.3	2.3	21.7	108.8	112.4	62.4	43.5	81.6	98.4	116.1	116.1	116.1

3542 rows × 20 columns

In [397]: `c=b.tail(115)`

Out[397]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
3427	3427	TAMIL NADU	1901	24.5	39.1	21.7	36.0	74.0	41.8	49.3	67.9	191.1	122.3
3428	3428	TAMIL NADU	1902	67.2	9.8	25.1	21.9	84.7	39.3	55.1	113.8	98.6	282.2
3429	3429	TAMIL NADU	1903	19.3	7.8	1.7	18.2	128.5	58.5	72.6	115.0	210.4	128.1
3430	3430	TAMIL NADU	1904	35.2	0.1	0.7	19.5	121.9	34.9	89.0	40.4	85.7	163.2
3431	3431	TAMIL NADU	1905	6.5	7.5	17.2	64.8	83.7	49.8	39.0	101.8	73.5	250.4
...
3537	3537	TAMIL NADU	2011	4.3	11.2	8.0	91.5	33.4	56.0	45.5	128.9	76.0	200.4
3538	3538	TAMIL NADU	2012	3.0	0.1	2.5	35.5	41.9	30.1	46.5	98.0	84.9	235.2
3539	3539	TAMIL NADU	2013	3.9	30.9	30.0	20.3	42.0	54.6	42.7	110.7	113.5	127.9
3540	3540	TAMIL NADU	2014	7.4	6.1	8.1	8.3	139.1	47.8	50.6	117.7	98.9	252.2
3541	3541	TAMIL NADU	2015	8.3	2.3	21.7	108.8	112.4	62.4	43.5	81.6	98.4	132.6

115 rows × 20 columns

In [398]: `d=c[['YEAR', 'JAN', 'FEB', 'MAR']]`

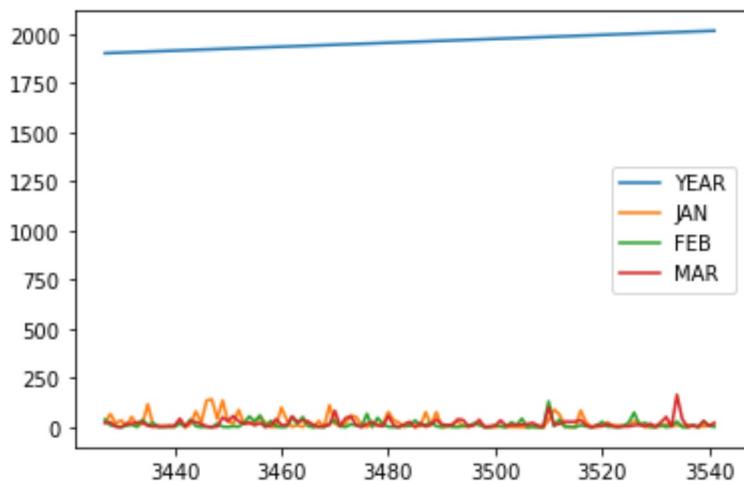
Out[398]:

	YEAR	JAN	FEB	MAR
3427	1901	24.5	39.1	21.7
3428	1902	67.2	9.8	25.1
3429	1903	19.3	7.8	1.7
3430	1904	35.2	0.1	0.7
3431	1905	6.5	7.5	17.2
...
3537	2011	4.3	11.2	8.0
3538	2012	3.0	0.1	2.5
3539	2013	3.9	30.9	30.0
3540	2014	7.4	6.1	8.1
3541	2015	8.3	2.3	21.7

115 rows × 4 columns

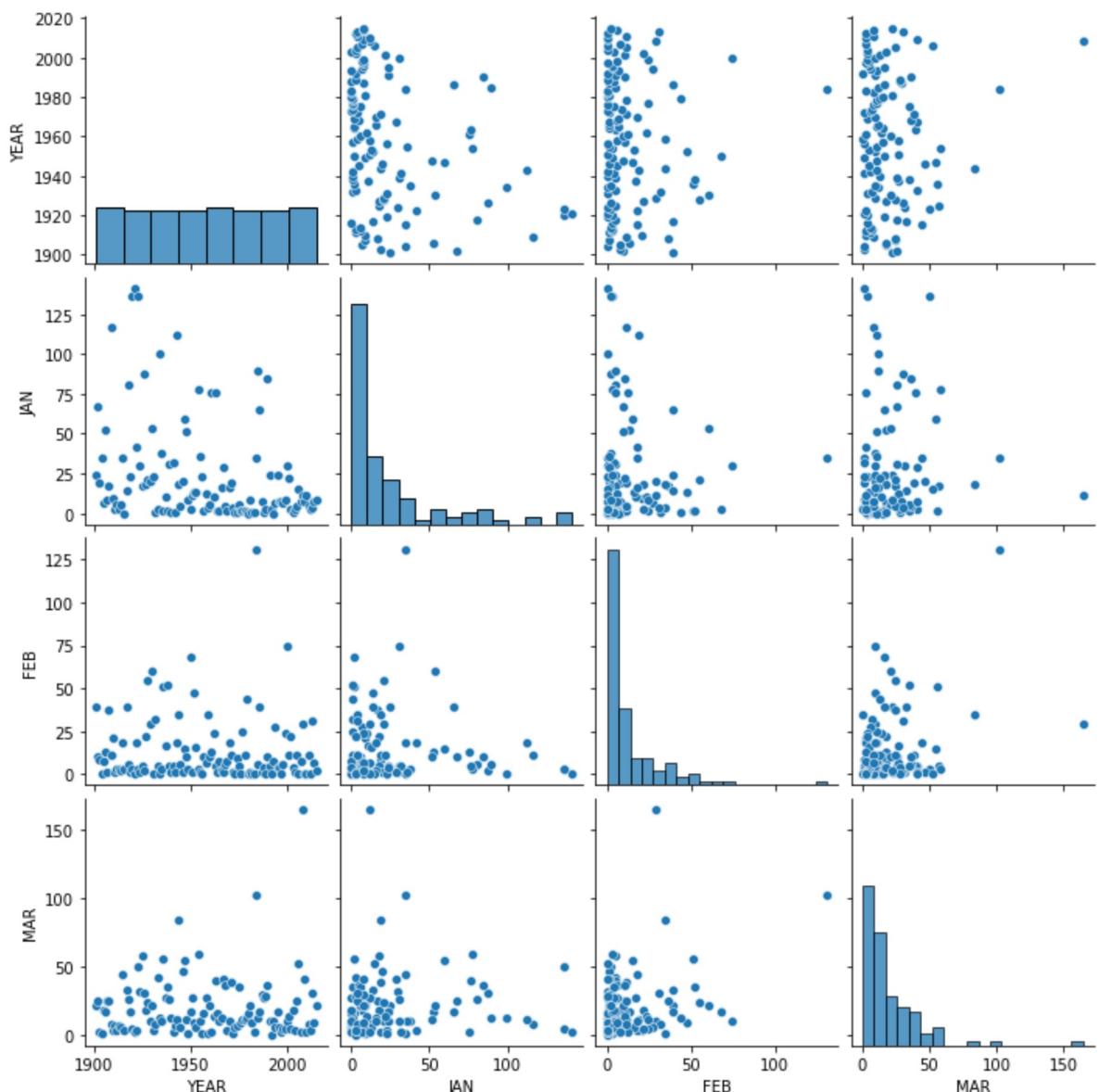
In [399]:

Out[399]: <AxesSubplot:>



In [400]:

Out[400]: <seaborn.axisgrid.PairGrid at 0x2279d421250>

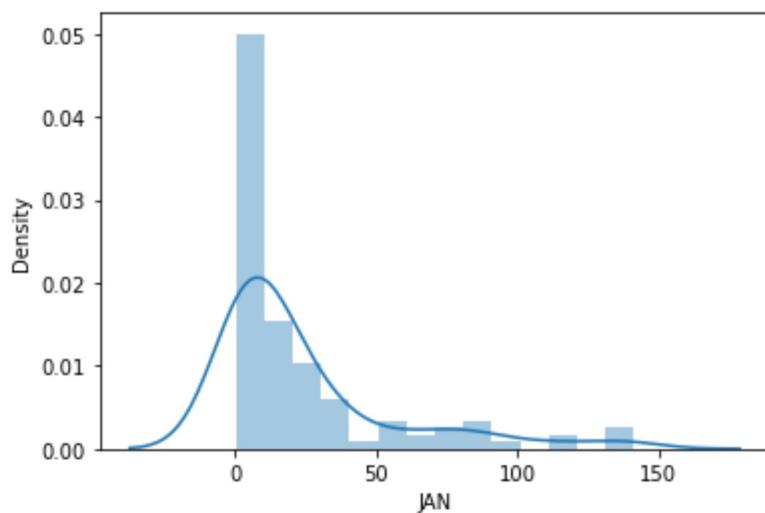


In [401]:

```
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).
```

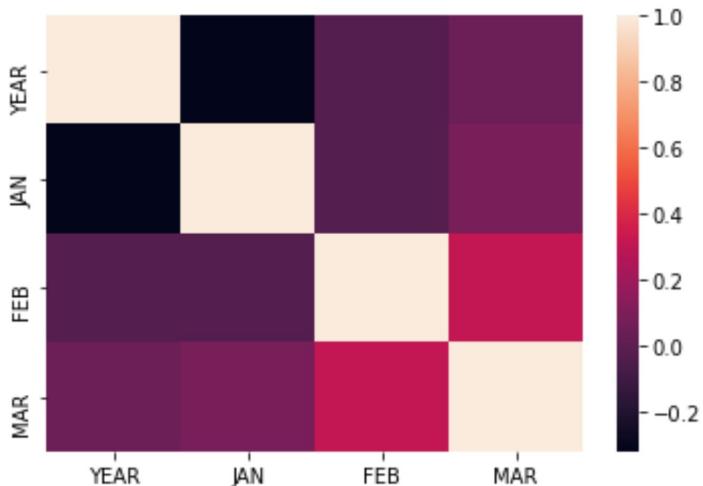
```
    warnings.warn(msg, FutureWarning)
```

Out[401]: <AxesSubplot:xlabel='JAN', ylabel='Density'>



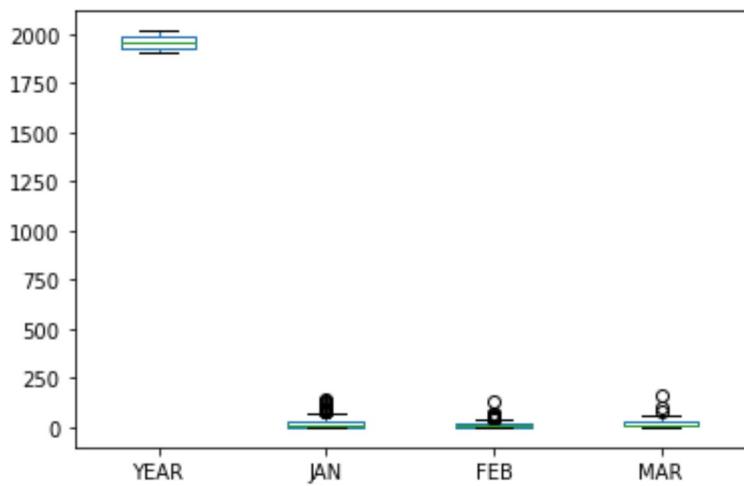
In [402]:

Out[402]: <AxesSubplot:>



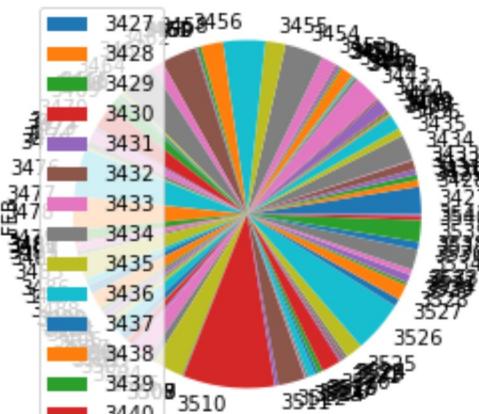
In [403]:

Out[403]: <AxesSubplot:>



In [404]:

Out[404]: <AxesSubplot:ylabel='FEB'>



COMAL KARNATAKA

In [405]: `c=a.head(3657)`

Out[405]:

	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
...
3652	3652	COASTAL KARNATAKA	2011	4.8	3.8	8.7	66.1	49.3	1018.4	1080.5	861.3	545.2
3653	3653	COASTAL KARNATAKA	2012	NaN	11.4	5.1	77.0	22.9	650.9	754.6	1027.6	382.0
3654	3654	COASTAL KARNATAKA	2013	2.4	19.6	19.0	28.5	100.4	1153.0	1515.3	680.2	379.1
3655	3655	COASTAL KARNATAKA	2014	0.0	0.3	1.9	40.5	181.9	507.0	1155.4	1121.0	379.3
3656	3656	COASTAL KARNATAKA	2015	1.4	1.0	32.3	72.2	150.3	735.3	930.9	575.2	260.3

3657 rows × 20 columns

In [406]: `d=c.tail(115)`

Out[406]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
3542	3542	COASTAL KARNATAKA	1901	1.8	0.6	10.7	52.4	81.6	960.9	991.2	606.4	108.0
3543	3543	COASTAL KARNATAKA	1902	3.2	0.3	4.9	10.2	54.6	698.4	1401.6	454.2	708.4
3544	3544	COASTAL KARNATAKA	1903	0.7	0.0	0.0	4.1	202.8	536.5	1405.5	593.8	304.4
3545	3545	COASTAL KARNATAKA	1904	2.4	0.0	4.8	23.7	93.2	1108.2	1070.0	465.6	245.3
3546	3546	COASTAL KARNATAKA	1905	0.0	0.2	0.0	6.4	83.1	767.3	777.3	586.9	172.9
...
3652	3652	COASTAL KARNATAKA	2011	4.8	3.8	8.7	66.1	49.3	1018.4	1080.5	861.3	545.2
3653	3653	COASTAL KARNATAKA	2012	NaN	11.4	5.1	77.0	22.9	650.9	754.6	1027.6	382.0
3654	3654	COASTAL KARNATAKA	2013	2.4	19.6	19.0	28.5	100.4	1153.0	1515.3	680.2	379.1
3655	3655	COASTAL KARNATAKA	2014	0.0	0.3	1.9	40.5	181.9	507.0	1155.4	1121.0	379.3
3656	3656	COASTAL KARNATAKA	2015	1.4	1.0	32.3	72.2	150.3	735.3	930.9	575.2	260.3

115 rows × 20 columns

In [407]: `e=d[['JAN', 'FEB', 'MAR']]`

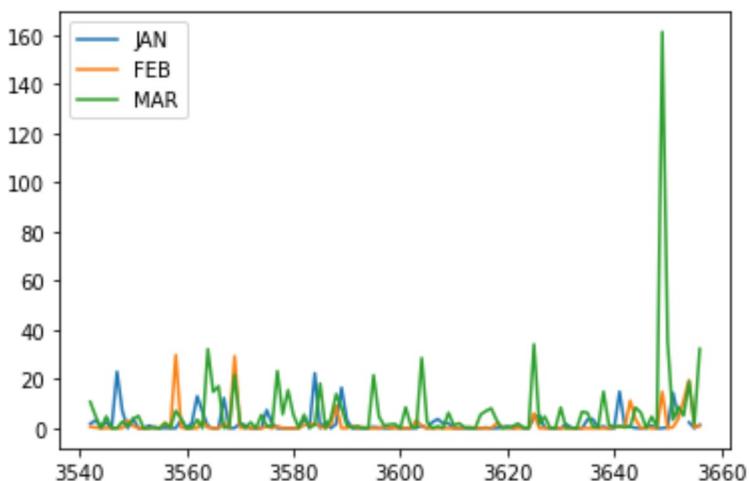
Out[407]:

	JAN	FEB	MAR
3542	1.8	0.6	10.7
3543	3.2	0.3	4.9
3544	0.7	0.0	0.0
3545	2.4	0.0	4.8
3546	0.0	0.2	0.0
...
3652	4.8	3.8	8.7
3653	NaN	11.4	5.1
3654	2.4	19.6	19.0
3655	0.0	0.3	1.9
3656	1.4	1.0	32.3

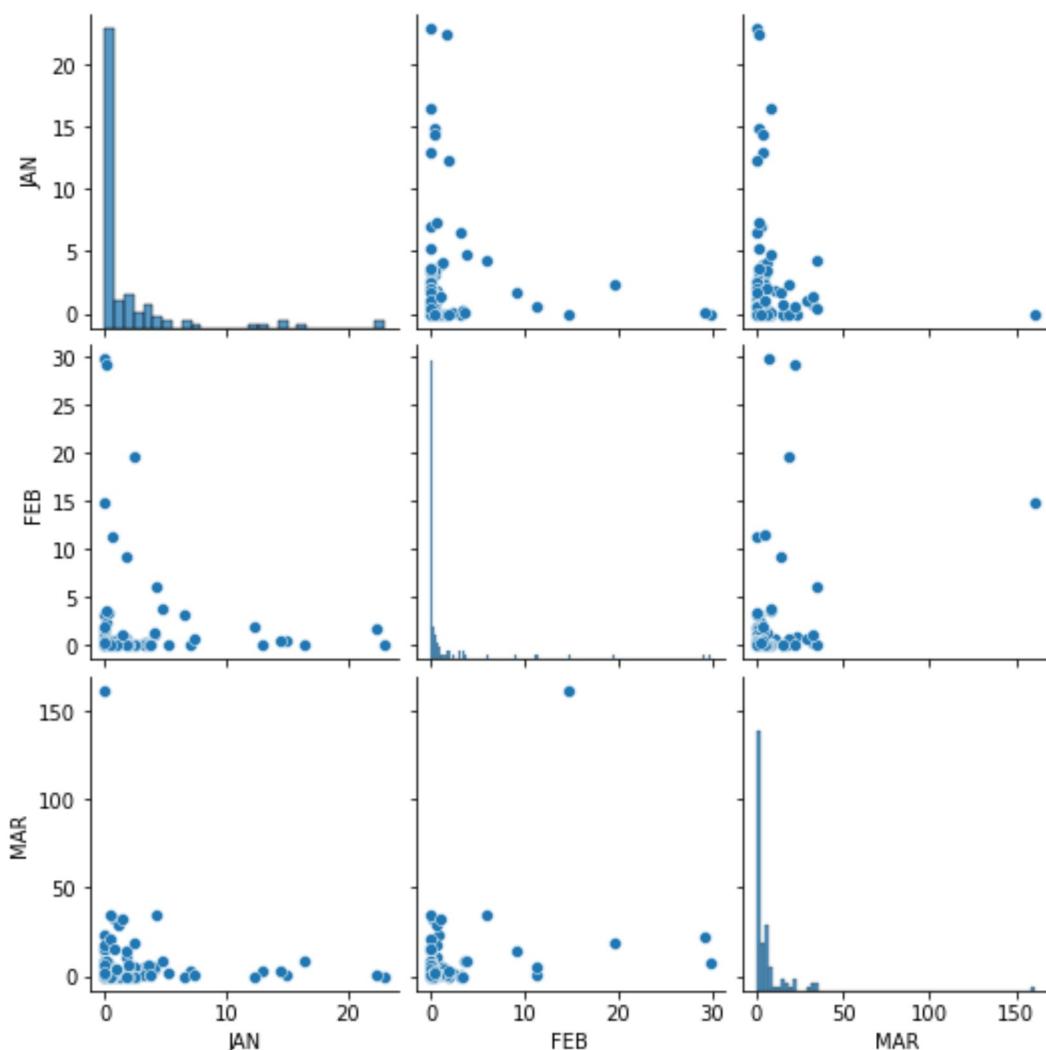
115 rows × 3 columns

In [408]:

Out[408]: <AxesSubplot:>



Out[409]: <seaborn.axisgrid.PairGrid at 0x2279f626f70>

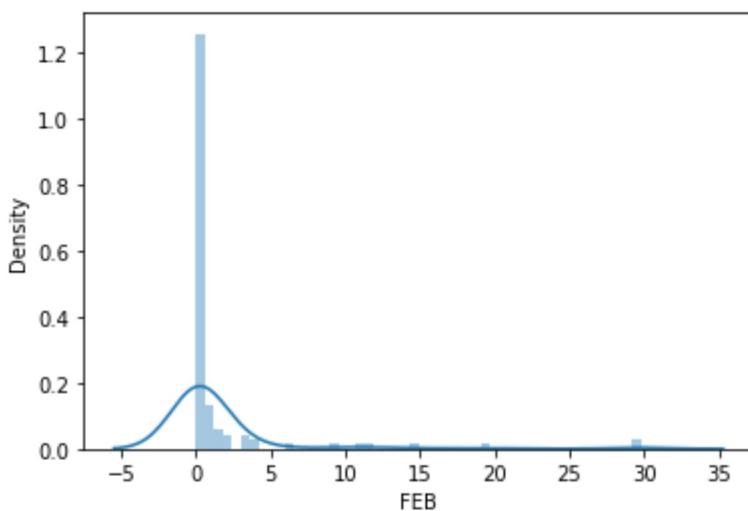


In [410]:

```
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).
```

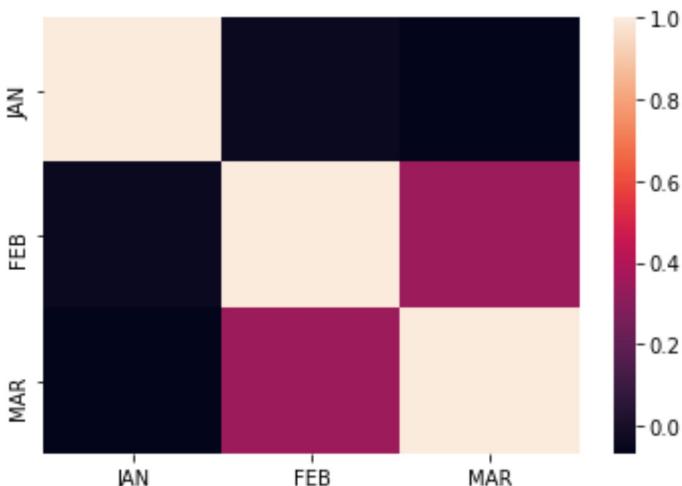
```
    warnings.warn(msg, FutureWarning)
```

Out[410]: <AxesSubplot:xlabel='FEB', ylabel='Density'>



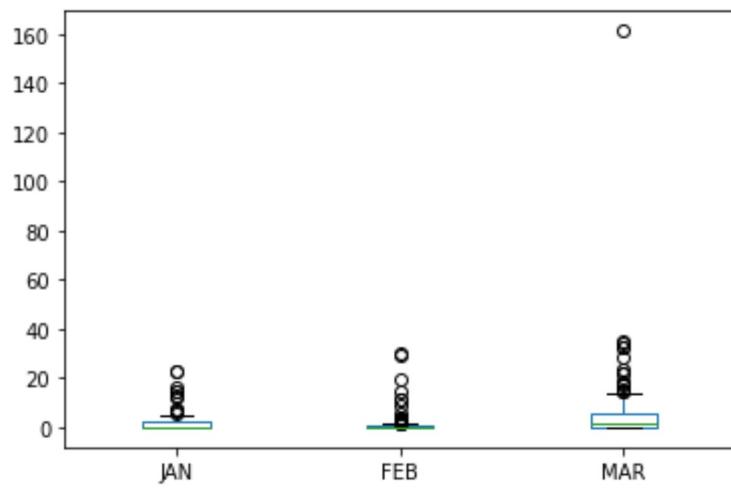
In [411]:

Out[411]: <AxesSubplot:>



In [412]:

Out[412]: <AxesSubplot:>



In [413]:

Out[413]: <AxesSubplot:ylabel='MAR'>



In [414]: c=a.head(3772)

Out[414]:

	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
...
3767	3767	NORTH INTERIOR KARNATAKA	2011	0.5	7.2	7.2	41.2	46.8	101.3	150.8	152.0	69.0	111.1	111.1	111.1
3768	3768	NORTH INTERIOR KARNATAKA	2012	28.5	6.2	0.4	35.4	19.5	60.0	114.5	105.5	79.2	111.1	111.1	111.1
3769	3769	NORTH INTERIOR KARNATAKA	2013	1.2	6.1	3.0	25.4	47.4	99.4	160.7	73.9	201.0	111.1	111.1	111.1
3770	3770	NORTH INTERIOR KARNATAKA	2014	0.0	6.1	29.2	26.4	93.0	50.4	136.8	205.2	90.2	111.1	111.1	111.1
3771	3771	NORTH INTERIOR KARNATAKA	2015	2.4	0.0	27.5	50.8	45.3	89.6	38.5	78.4	150.8	111.1	111.1	111.1

3772 rows × 20 columns

In [415]: `d=c.tail(115)`

Out[415]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OC
3657	3657	NORTH INTERIOR KARNATAKA	1901	3.5	18.8	7.1	67.2	65.5	120.5	151.9	115.1	128.8	80.
3658	3658	NORTH INTERIOR KARNATAKA	1902	0.0	0.0	0.3	22.5	34.4	111.3	83.2	78.1	146.7	118.
3659	3659	NORTH INTERIOR KARNATAKA	1903	3.5	0.0	0.1	6.9	53.4	102.8	209.4	146.4	189.3	166.
3660	3660	NORTH INTERIOR KARNATAKA	1904	0.2	0.3	8.5	11.0	46.3	120.6	91.6	48.5	165.1	86.
3661	3661	NORTH INTERIOR KARNATAKA	1905	0.0	6.0	2.6	16.0	51.2	99.6	60.1	139.2	42.2	85.
...
3767	3767	NORTH INTERIOR KARNATAKA	2011	0.5	7.2	7.2	41.2	46.8	101.3	150.8	152.0	69.0	73.
3768	3768	NORTH INTERIOR KARNATAKA	2012	28.5	6.2	0.4	35.4	19.5	60.0	114.5	105.5	79.2	85.
3769	3769	NORTH INTERIOR KARNATAKA	2013	1.2	6.1	3.0	25.4	47.4	99.4	160.7	73.9	201.0	101.
3770	3770	NORTH INTERIOR KARNATAKA	2014	0.0	6.1	29.2	26.4	93.0	50.4	136.8	205.2	90.2	80.
3771	3771	NORTH INTERIOR KARNATAKA	2015	2.4	0.0	27.5	50.8	45.3	89.6	38.5	78.4	150.8	61.

115 rows × 20 columns

In [416]: `e=d[['JAN', 'FEB', 'MAR','APR','MAY']]`

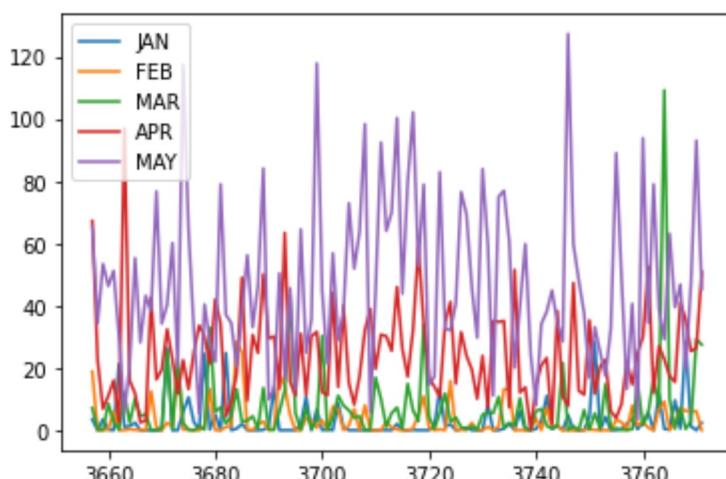
Out[416]:

	JAN	FEB	MAR	APR	MAY
3657	3.5	18.8	7.1	67.2	65.5
3658	0.0	0.0	0.3	22.5	34.4
3659	3.5	0.0	0.1	6.9	53.4
3660	0.2	0.3	8.5	11.0	46.3
3661	0.0	6.0	2.6	16.0	51.2
...
3767	0.5	7.2	7.2	41.2	46.8
3768	28.5	6.2	0.4	35.4	19.5
3769	1.2	6.1	3.0	25.4	47.4
3770	0.0	6.1	29.2	26.4	93.0
3771	2.4	0.0	27.5	50.8	45.3

115 rows × 5 columns

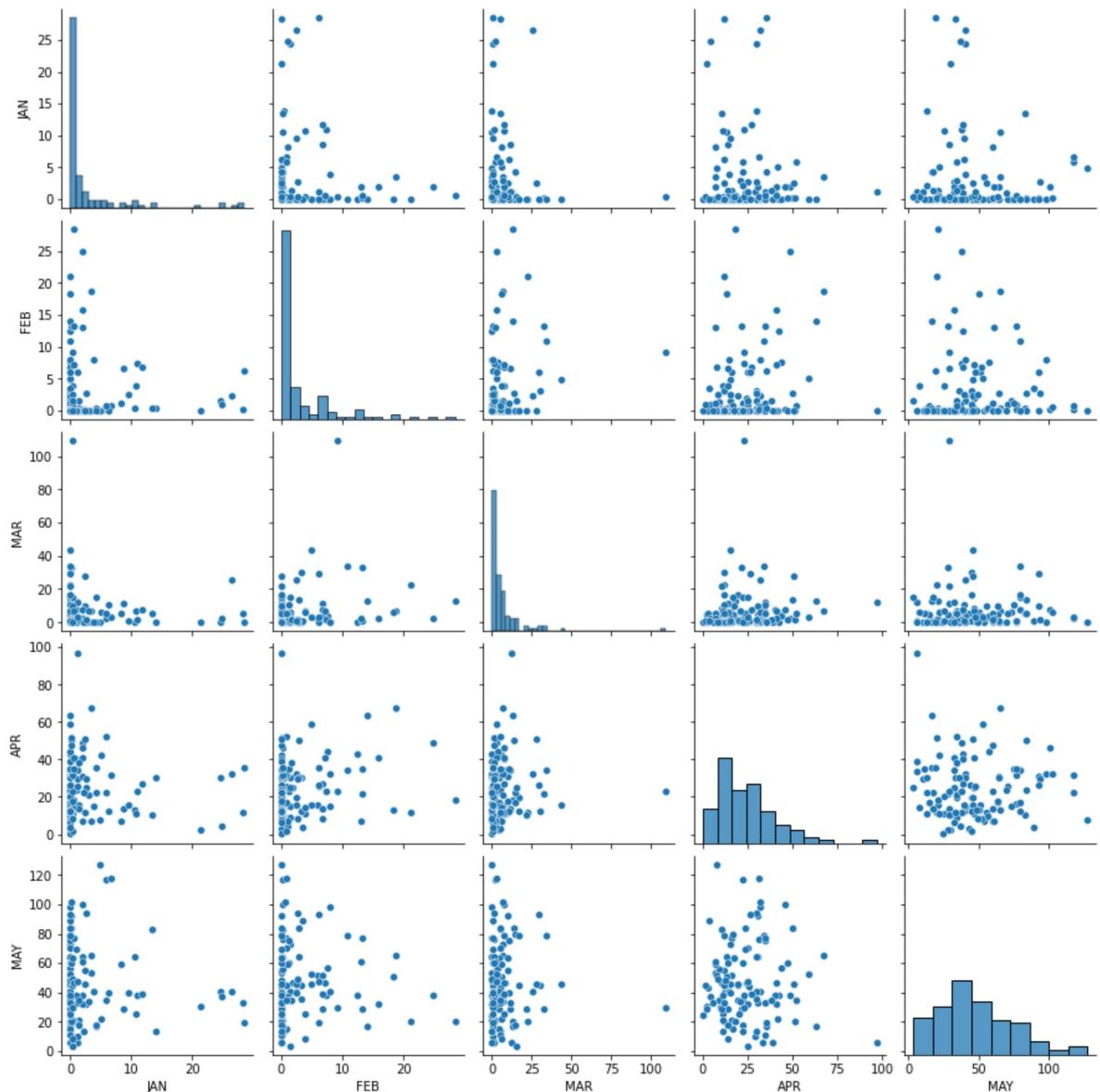
In [417]:

Out[417]: <AxesSubplot:>



In [418]:

Out[418]: <seaborn.axisgrid.PairGrid at 0x227a07d2070>

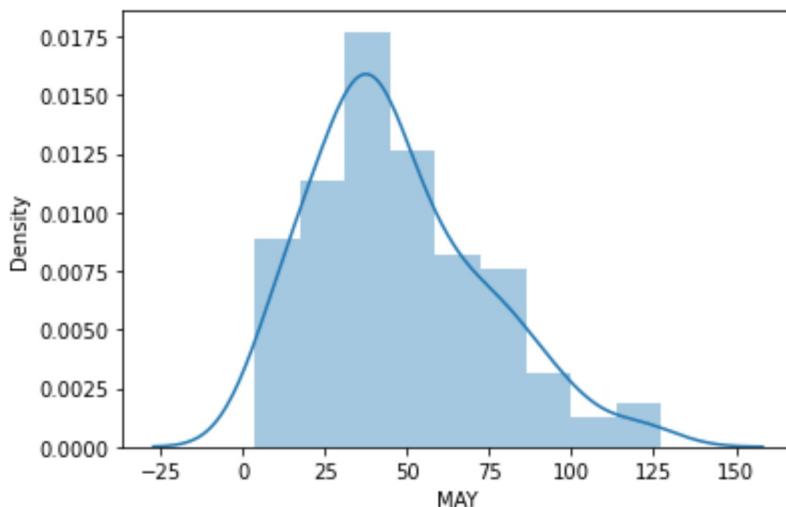


In [419]:

```
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).
```

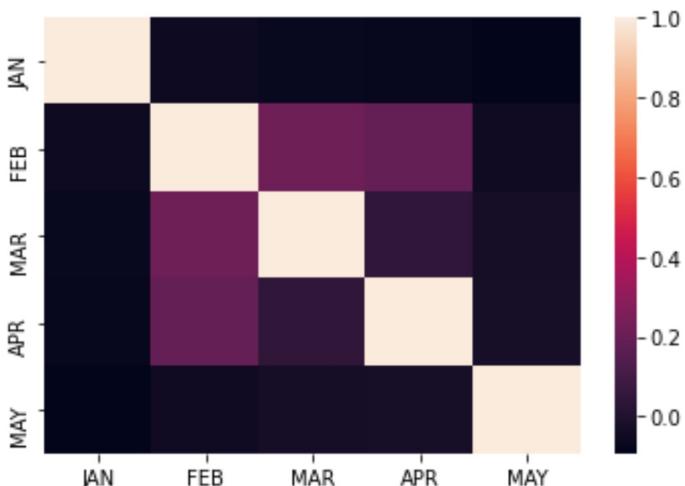
```
    warnings.warn(msg, FutureWarning)
```

Out[419]: <AxesSubplot:xlabel='MAY', ylabel='Density'>



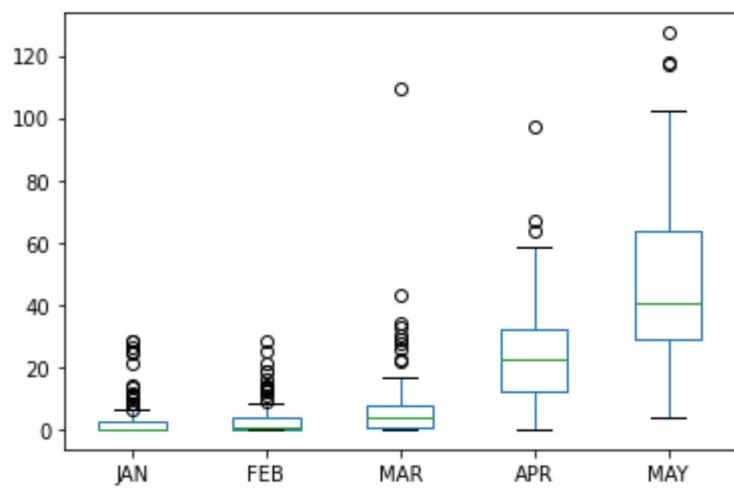
In [420]:

Out[420]: <AxesSubplot:>



In [421]:

Out[421]: <AxesSubplot:>



In [422]:

Out[422]: <AxesSubplot:ylabel='FEB'>



SOUTH INTERIOR KARNATAKA

In [423]: `c=a.head(3887)`

Out[423]:

	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	212.2	212.2	212.2
4	4	ANDAMAN & NICOBAR ISLANDS	1905	1.3	0.0	3.3	26.9	279.5	628.7	368.7	330.5	297.0	200.0	200.0	200.0
...
3882	3882	SOUTH INTERIOR KARNATAKA	2011	2.1	12.4	12.4	80.2	83.5	177.1	202.4	199.5	111.2	111.2	111.2	111.2
3883	3883	SOUTH INTERIOR KARNATAKA	2012	4.6	5.5	8.1	99.0	45.6	81.8	144.7	236.5	100.6	100.6	100.6	100.6
3884	3884	SOUTH INTERIOR KARNATAKA	2013	0.5	10.1	11.7	34.6	95.6	176.2	307.4	151.7	191.8	191.8	191.8	191.8
3885	3885	SOUTH INTERIOR KARNATAKA	2014	0.4	2.4	17.7	46.7	130.5	106.8	271.6	254.6	161.6	161.6	161.6	161.6
3886	3886	SOUTH INTERIOR KARNATAKA	2015	1.7	0.2	24.4	80.5	125.3	218.7	112.0	136.6	164.5	164.5	164.5	164.5

3887 rows × 20 columns

In [424]: `d=c.tail(115)`

Out[424]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
3772	3772	SOUTH INTERIOR KARNATAKA	1901	4.9	31.8	3.0	32.7	109.6	106.0	210.0	109.2	140.8	170.0	160.0	150.0
3773	3773	SOUTH INTERIOR KARNATAKA	1902	1.9	0.5	6.7	42.6	97.7	91.7	210.0	82.1	138.4	219.0	190.0	170.0
3774	3774	SOUTH INTERIOR KARNATAKA	1903	0.3	0.0	1.1	11.6	125.1	129.7	284.4	155.7	197.1	154.0	140.0	130.0
3775	3775	SOUTH INTERIOR KARNATAKA	1904	1.0	0.5	5.2	43.5	144.7	167.9	197.1	73.2	89.6	120.0	110.0	100.0
3776	3776	SOUTH INTERIOR KARNATAKA	1905	1.7	7.9	14.2	23.6	118.6	95.9	148.4	140.6	43.1	142.0	130.0	120.0
...
3882	3882	SOUTH INTERIOR KARNATAKA	2011	2.1	12.4	12.4	80.2	83.5	177.1	202.4	199.5	111.2	144.0	130.0	120.0
3883	3883	SOUTH INTERIOR KARNATAKA	2012	4.6	5.5	8.1	99.0	45.6	81.8	144.7	236.5	100.6	62.0	50.0	40.0
3884	3884	SOUTH INTERIOR KARNATAKA	2013	0.5	10.1	11.7	34.6	95.6	176.2	307.4	151.7	191.8	103.0	90.0	80.0
3885	3885	SOUTH INTERIOR KARNATAKA	2014	0.4	2.4	17.7	46.7	130.5	106.8	271.6	254.6	161.6	152.0	140.0	130.0
3886	3886	SOUTH INTERIOR KARNATAKA	2015	1.7	0.2	24.4	80.5	125.3	218.7	112.0	136.6	164.5	106.0	90.0	80.0

115 rows × 20 columns

In [425]: `e=d[['JAN', 'FEB', 'MAR','APR','MAY']]`

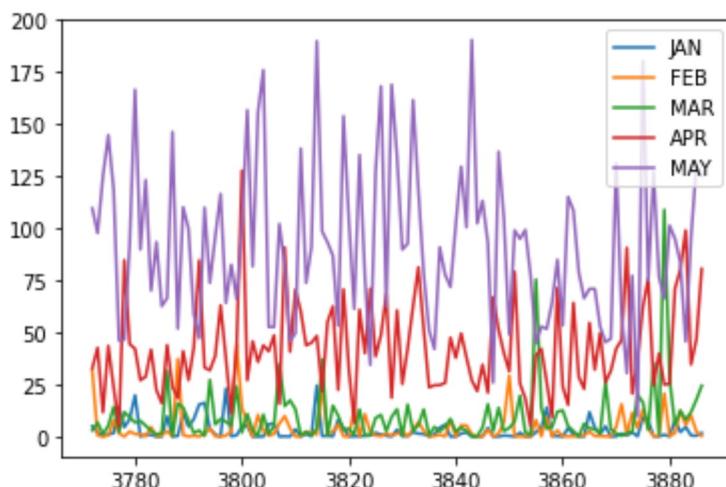
Out[425]:

	JAN	FEB	MAR	APR	MAY
3772	4.9	31.8	3.0	32.7	109.6
3773	1.9	0.5	6.7	42.6	97.7
3774	0.3	0.0	1.1	11.6	125.1
3775	1.0	0.5	5.2	43.5	144.7
3776	1.7	7.9	14.2	23.6	118.6
...
3882	2.1	12.4	12.4	80.2	83.5
3883	4.6	5.5	8.1	99.0	45.6
3884	0.5	10.1	11.7	34.6	95.6
3885	0.4	2.4	17.7	46.7	130.5
3886	1.7	0.2	24.4	80.5	125.3

115 rows × 5 columns

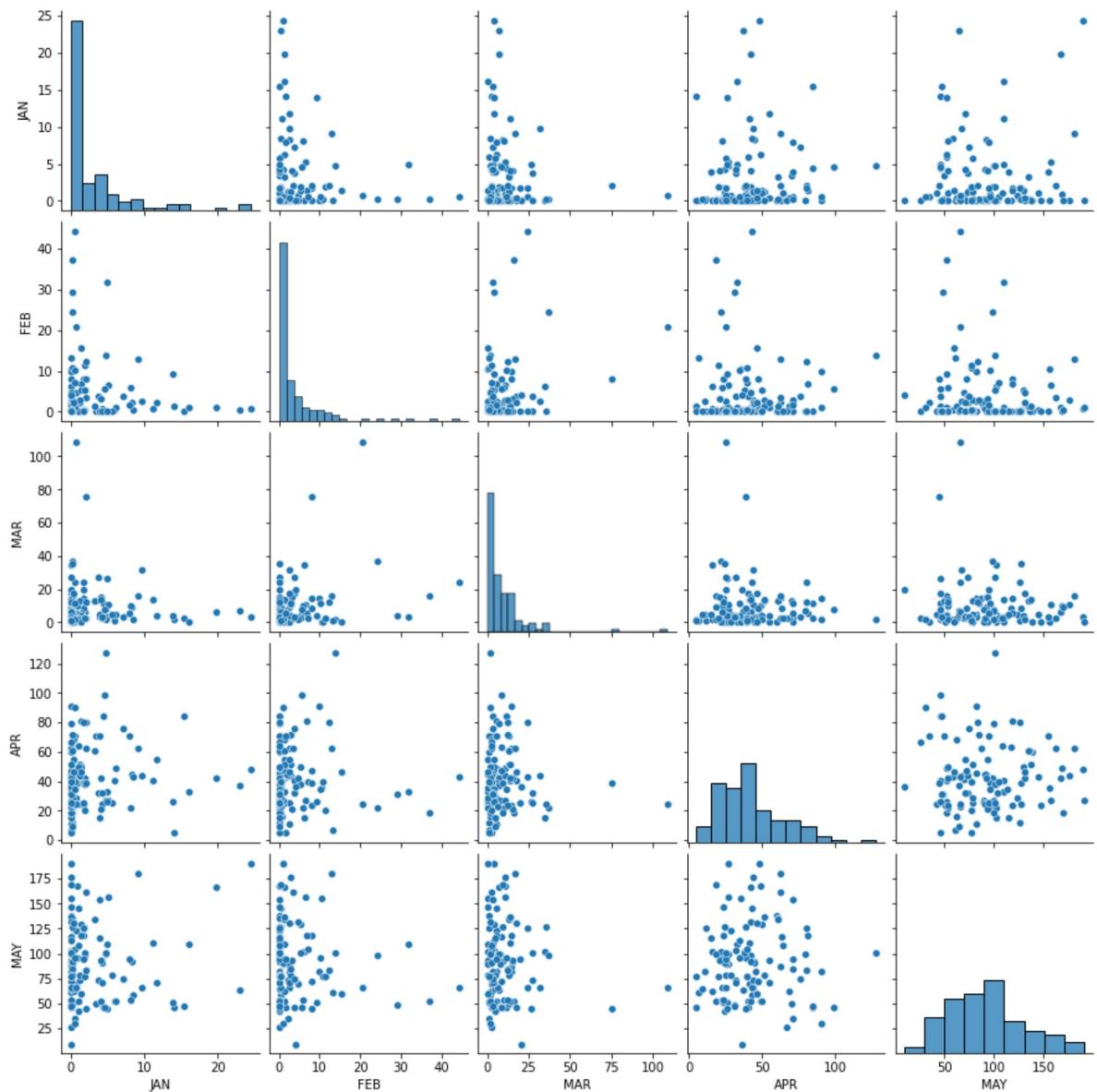
In [426]:

Out[426]: <AxesSubplot:>



In [427]:

Out[427]: <seaborn.axisgrid.PairGrid at 0x227a2d46f70>

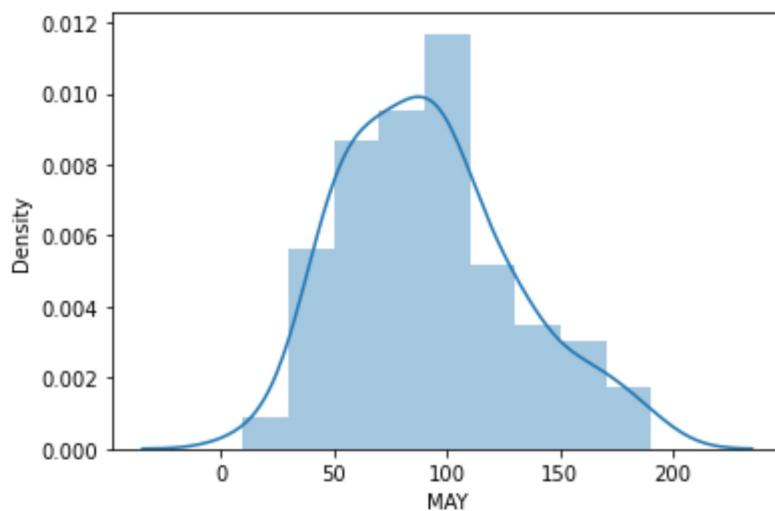


In [428]:

```
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).
```

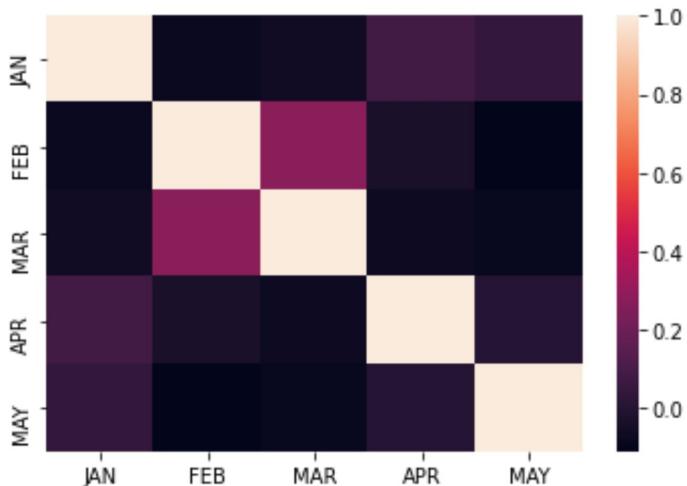
```
    warnings.warn(msg, FutureWarning)
```

Out[428]: <AxesSubplot:xlabel='MAY', ylabel='Density'>



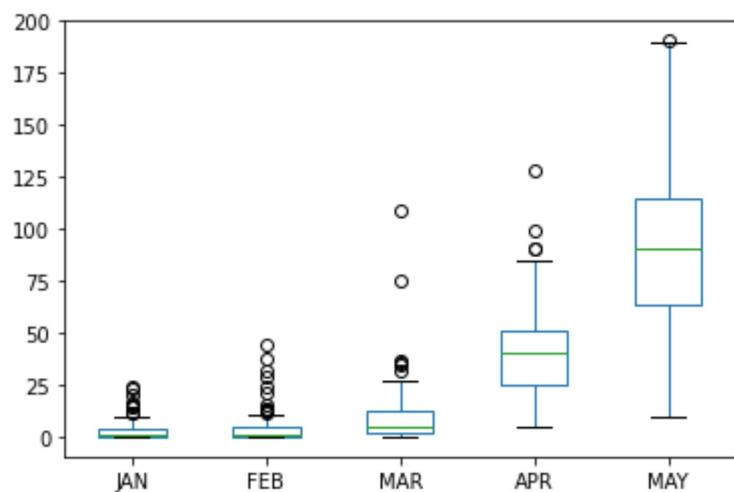
In [429]:

Out[429]: <AxesSubplot:>



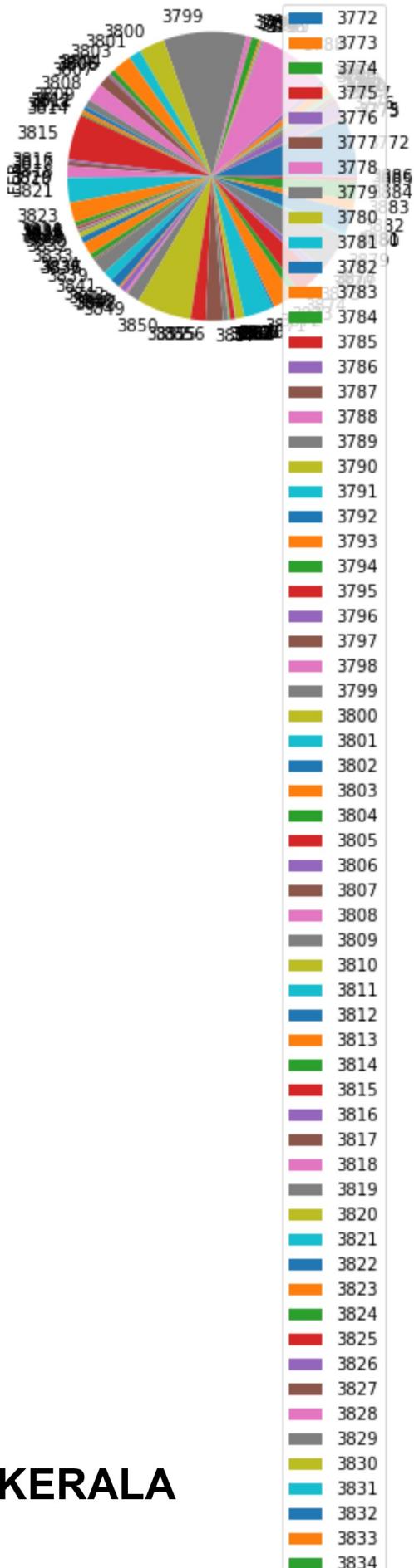
In [430]:

Out[430]: <AxesSubplot:>



In [431]:

Out[431]: <AxesSubplot:ylabel='FEB'>



KERALA

In [432]: `c=a.head(4002)`

Out[432]:

	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	112.1	10.1	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	212.1	10.1	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	112.1	10.1	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	112.1	10.1	1.1
4	4	ANDAMAN & NICOBAR ISLANDS	1905	1.3	0.0	3.3	26.9	279.5	628.7	368.7	330.5	297.0	112.1	10.1	1.1
...	
3997	3997	KERALA	2011	20.5	45.7	24.1	165.2	124.2	788.5	536.8	492.7	391.2	112.1	10.1	1.1
3998	3998	KERALA	2012	7.4	11.0	21.0	171.1	95.3	430.3	362.6	501.6	241.1	112.1	10.1	1.1
3999	3999	KERALA	2013	3.9	40.1	49.9	49.3	119.3	1042.7	830.2	369.7	318.6	112.1	10.1	1.1
4000	4000	KERALA	2014	4.6	10.3	17.9	95.7	251.0	454.4	677.8	733.9	298.8	112.1	10.1	1.1
4001	4001	KERALA	2015	3.1	5.8	50.1	214.1	201.8	563.6	406.0	252.2	292.9	112.1	10.1	1.1

4002 rows × 20 columns

In [433]: `d=c.tail(115)`

Out[433]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
3887	3887	KERALA	1901	28.7	44.7	51.6	160.0	174.7	824.6	743.0	357.5	197.7
3888	3888	KERALA	1902	6.7	2.6	57.3	83.9	134.5	390.9	1205.0	315.8	491.6
3889	3889	KERALA	1903	3.2	18.6	3.1	83.6	249.7	558.6	1022.5	420.2	341.8
3890	3890	KERALA	1904	23.7	3.0	32.2	71.5	235.7	1098.2	725.5	351.8	222.7
3891	3891	KERALA	1905	1.2	22.3	9.4	105.9	263.3	850.2	520.5	293.6	217.2
...
3997	3997	KERALA	2011	20.5	45.7	24.1	165.2	124.2	788.5	536.8	492.7	391.2
3998	3998	KERALA	2012	7.4	11.0	21.0	171.1	95.3	430.3	362.6	501.6	241.1
3999	3999	KERALA	2013	3.9	40.1	49.9	49.3	119.3	1042.7	830.2	369.7	318.6
4000	4000	KERALA	2014	4.6	10.3	17.9	95.7	251.0	454.4	677.8	733.9	298.8
4001	4001	KERALA	2015	3.1	5.8	50.1	214.1	201.8	563.6	406.0	252.2	292.9

115 rows × 20 columns

In [434]: `e=d[['JAN', 'FEB', 'MAR', 'APR', 'MAY']]`

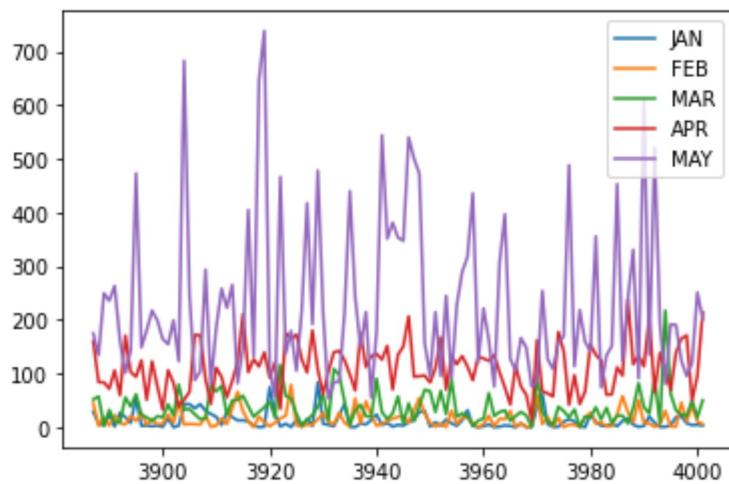
Out[434]:

	JAN	FEB	MAR	APR	MAY
3887	28.7	44.7	51.6	160.0	174.7
3888	6.7	2.6	57.3	83.9	134.5
3889	3.2	18.6	3.1	83.6	249.7
3890	23.7	3.0	32.2	71.5	235.7
3891	1.2	22.3	9.4	105.9	263.3
...
3997	20.5	45.7	24.1	165.2	124.2
3998	7.4	11.0	21.0	171.1	95.3
3999	3.9	40.1	49.9	49.3	119.3
4000	4.6	10.3	17.9	95.7	251.0
4001	3.1	5.8	50.1	214.1	201.8

115 rows × 5 columns

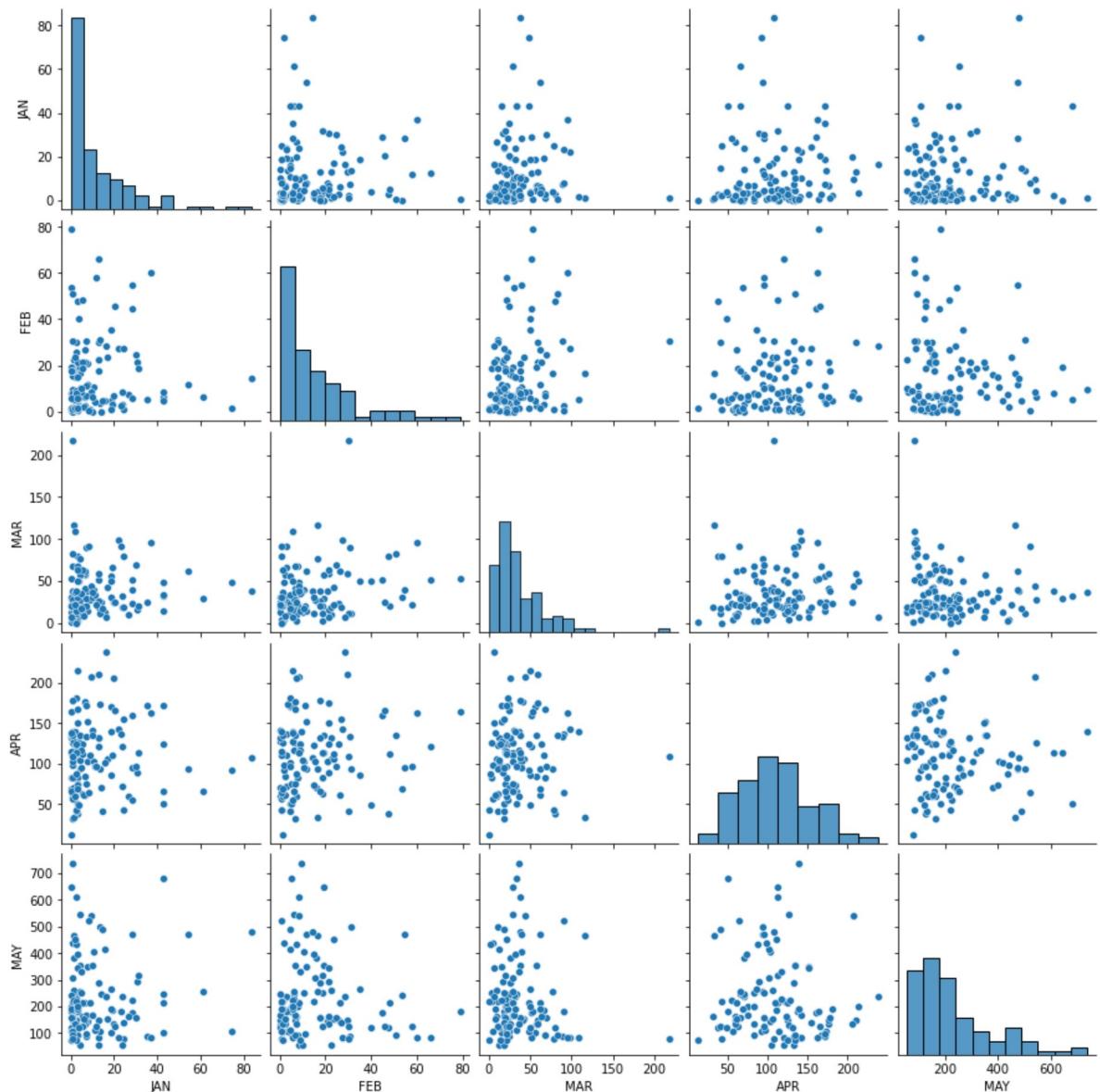
In [435]:

Out[435]: <AxesSubplot:>



In [436]:

Out[436]: <seaborn.axisgrid.PairGrid at 0x227a42b14f0>

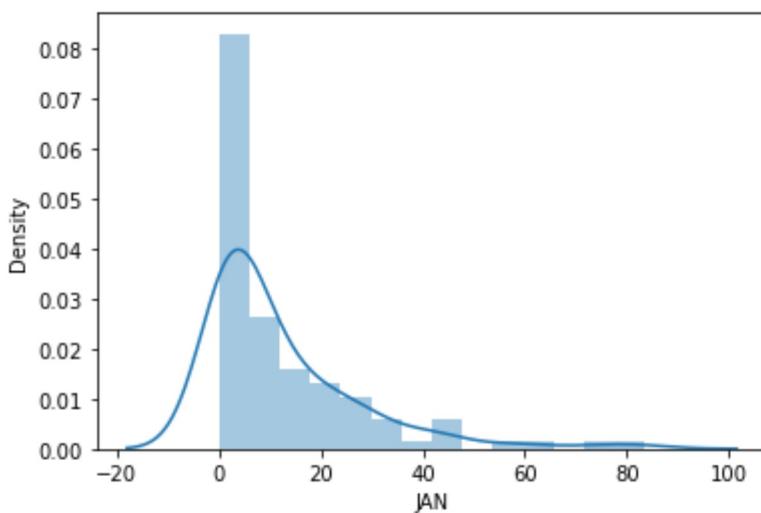


In [437]:

```
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).
```

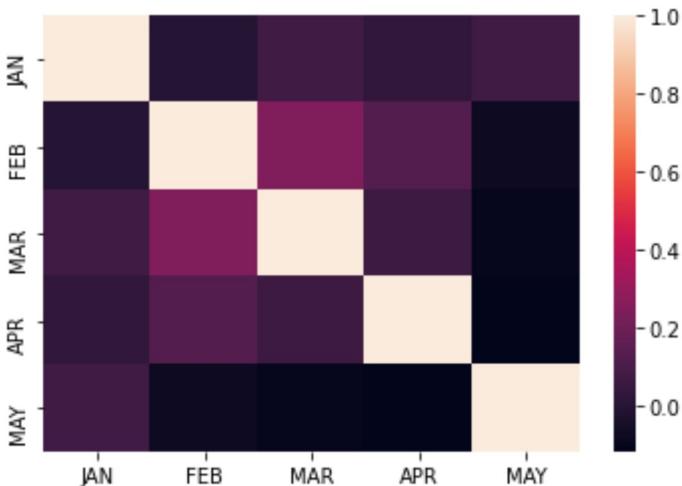
```
    warnings.warn(msg, FutureWarning)
```

Out[437]: <AxesSubplot:xlabel='JAN', ylabel='Density'>

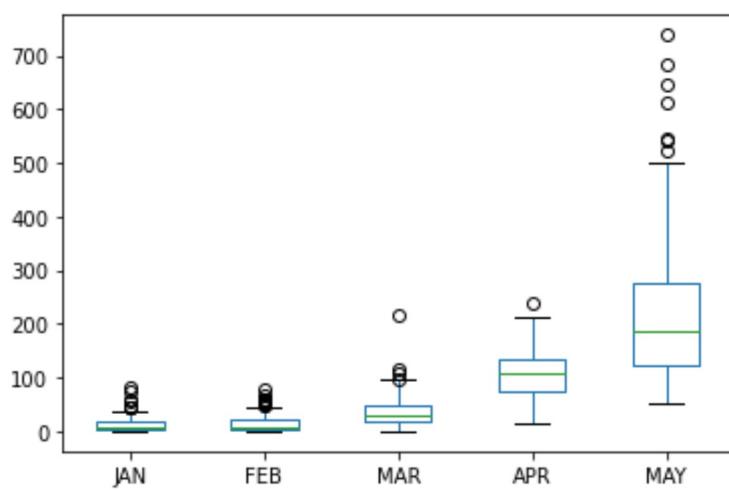


In [438]:

Out[438]: <AxesSubplot:>

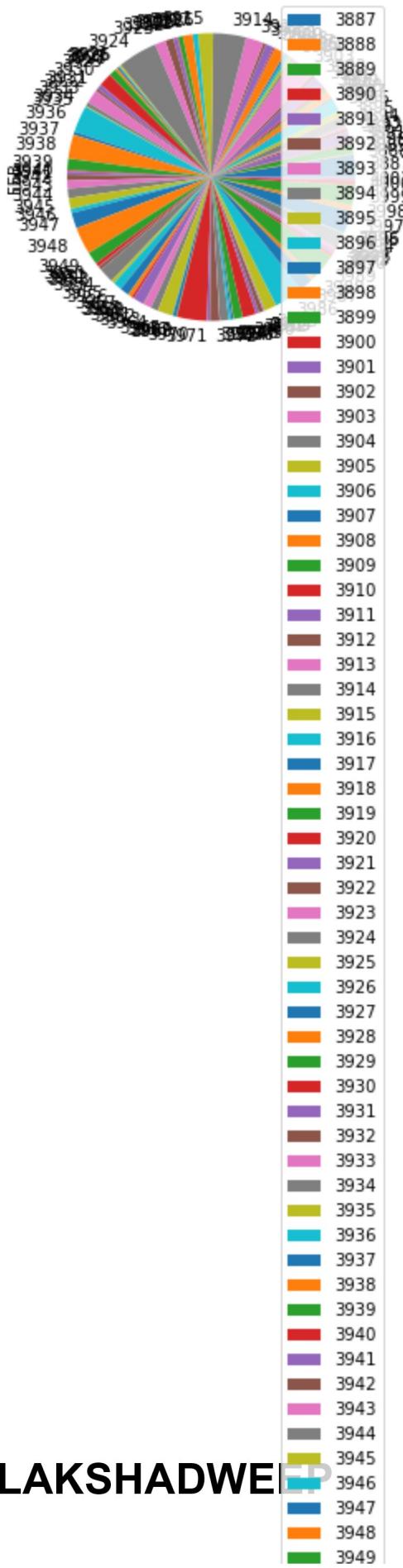


Out[439]: <AxesSubplot:>



In [440]:

Out[440]: <AxesSubplot:ylabel='FEB'>



In [441]: c=a.head(4115)

Out[441]:

		index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
		0	ANDAMAN & NICOBAR ISLANDS	1901	49.2	87.1	29.2	2.3	528.8	517.5	365.1	481.1	332.6
		1	ANDAMAN & NICOBAR ISLANDS	1902	0.0	159.8	12.2	0.0	446.1	537.1	228.9	753.7	666.2
		2	ANDAMAN & NICOBAR ISLANDS	1903	12.7	144.0	0.0	1.0	235.1	479.9	728.4	326.7	339.0
		3	ANDAMAN & NICOBAR ISLANDS	1904	9.4	14.7	0.0	202.4	304.5	495.1	502.0	160.1	820.4
		4	ANDAMAN & NICOBAR ISLANDS	1905	1.3	0.0	3.3	26.9	279.5	628.7	368.7	330.5	297.0
	
4110	4110	LAKSHADWEEP	LAKSHADWEEP	2010	18.8	0.0	1.2	35.6	79.0	318.9	336.7	335.1	161.5
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 rows × 20 columns

In [444]: `d=c.tail(113)`

Out[444]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
4002	4002	LAKSHADWEEP	1901	22.6	86.4	114.8	263.8	37.3	459.0	0.0	0.0	46.7
4003	4003	LAKSHADWEEP	1902	99.3	9.6	32.6	40.4	179.1	374.2	413.3	170.0	214.3
4004	4004	LAKSHADWEEP	1903	63.5	95.0	0.0	29.5	144.1	212.4	261.8	202.0	292.1
4005	4005	LAKSHADWEEP	1904	0.0	0.0	13.5	13.2	143.3	261.3	256.0	38.9	219.9
4006	4006	LAKSHADWEEP	1905	62.4	0.0	0.0	0.0	166.7	400.7	68.7	377.5	107.5
...
4110	4110	LAKSHADWEEP	2010	18.8	0.0	1.2	35.6	79.0	318.9	336.7	335.1	161.5
4111	4111	LAKSHADWEEP	2011	5.1	2.8	3.1	85.9	107.2	153.6	350.2	254.0	255.2
4112	4112	LAKSHADWEEP	2012	19.2	0.1	1.6	76.8	21.2	327.0	231.5	381.2	179.8
4113	4113	LAKSHADWEEP	2013	26.2	34.4	37.5	5.3	88.3	426.2	296.4	154.4	180.0
4114	4114	LAKSHADWEEP	2014	53.2	16.1	4.4	14.9	57.4	244.1	116.1	466.1	132.2

113 rows × 20 columns

In [445]: `e=d[['JAN', 'FEB', 'MAR', 'APR', 'MAY']]`

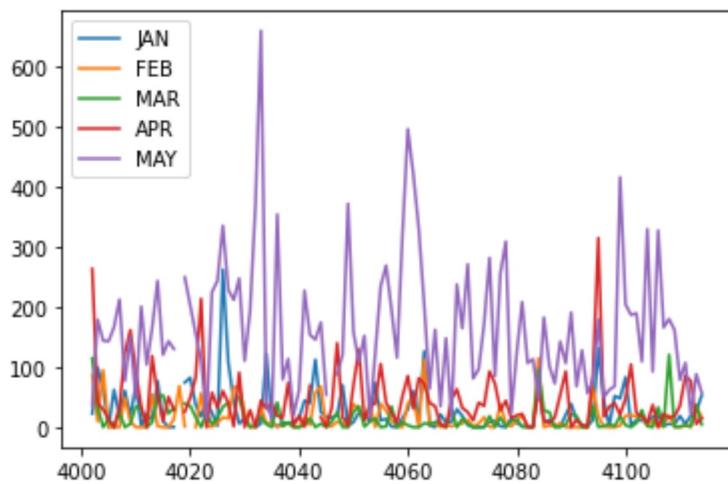
Out[445]:

	JAN	FEB	MAR	APR	MAY
4002	22.6	86.4	114.8	263.8	37.3
4003	99.3	9.6	32.6	40.4	179.1
4004	63.5	95.0	0.0	29.5	144.1
4005	0.0	0.0	13.5	13.2	143.3
4006	62.4	0.0	0.0	0.0	166.7
...
4110	18.8	0.0	1.2	35.6	79.0
4111	5.1	2.8	3.1	85.9	107.2
4112	19.2	0.1	1.6	76.8	21.2
4113	26.2	34.4	37.5	5.3	88.3
4114	53.2	16.1	4.4	14.9	57.4

113 rows × 5 columns

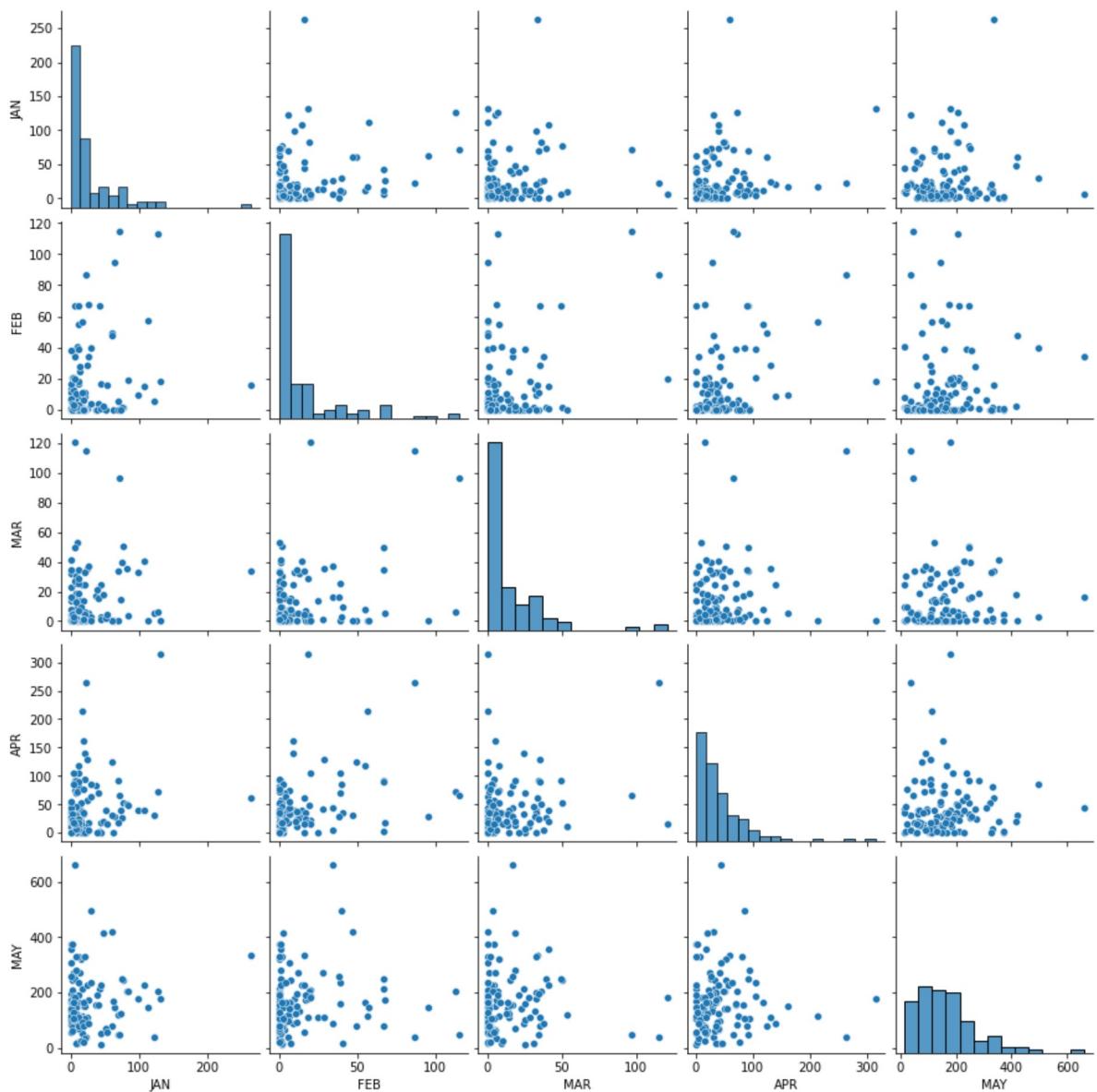
In [446]:

Out[446]: <AxesSubplot:>



In [447]:

Out[447]: <seaborn.axisgrid.PairGrid at 0x227a61e9520>

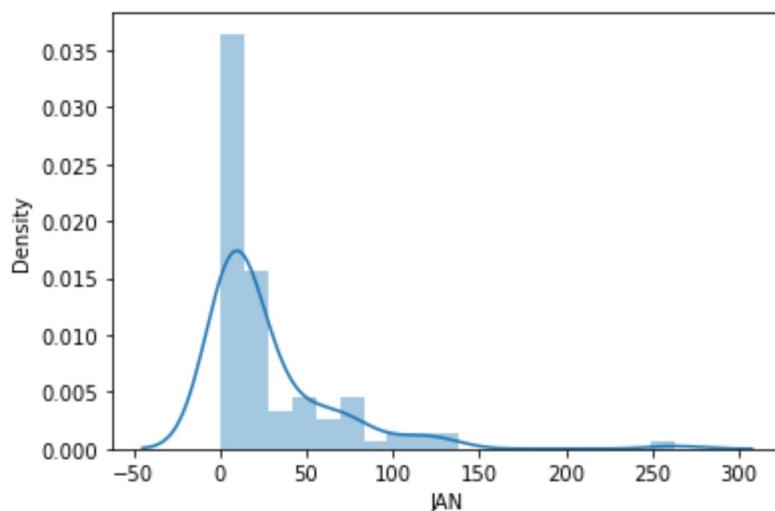


In [448]:

```
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).
```

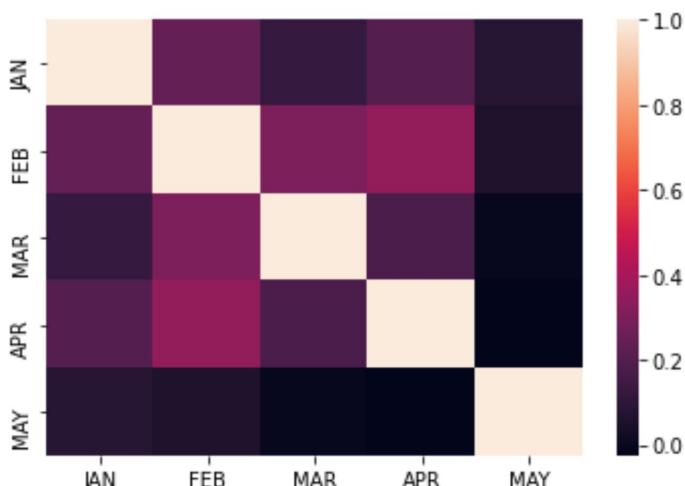
```
    warnings.warn(msg, FutureWarning)
```

Out[448]: <AxesSubplot:xlabel='JAN', ylabel='Density'>



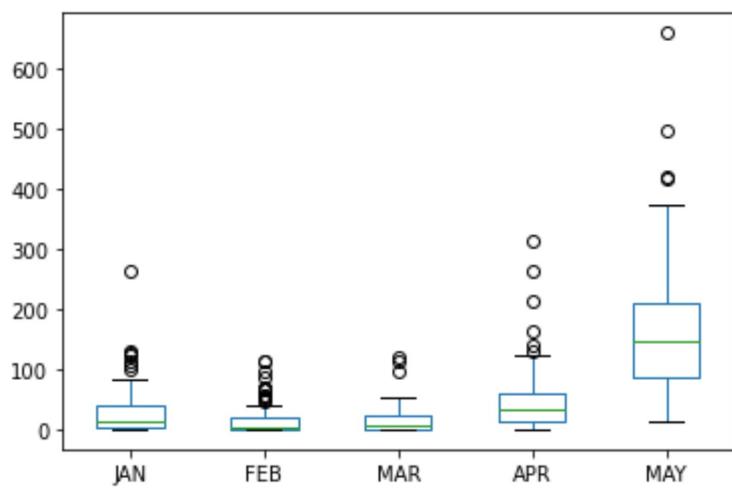
In [449]:

Out[449]: <AxesSubplot:>



In [450]:

Out[450]: <AxesSubplot:>



In [451]:

Out[451]: <AxesSubplot:ylabel='FEB'>

