In [8]:
```
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 [9]:
```
a=pd.read_csv(r"C:\Users\user\Downloads\FP2_RainFall\rainfall in india 1901-201
a
```

Out[9]:

	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
...	...	...	...	...	...	...	...	...	...	...	...	...
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
4115	4115	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 [10]:
```
a.columns
```

Out[10]:
```
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')
```

31. TAMIL NADU

In [292]:
```
b=a.head(3542)
b=b.tail(115)
b
```

Out[292]:

	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 [293]:
```
c=b[['YEAR','JAN','FEB','MAR','APR']]
c
```

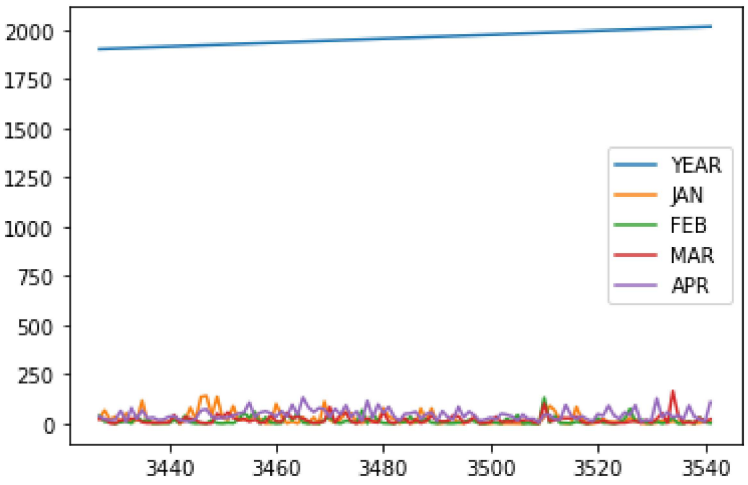
Out[293]:

	YEAR	JAN	FEB	MAR	APR
3427	1901	24.5	39.1	21.7	36.0
3428	1902	67.2	9.8	25.1	21.9
3429	1903	19.3	7.8	1.7	18.2
3430	1904	35.2	0.1	0.7	19.5
3431	1905	6.5	7.5	17.2	64.8
...	...	...	...	...	...
3537	2011	4.3	11.2	8.0	91.5
3538	2012	3.0	0.1	2.5	35.5
3539	2013	3.9	30.9	30.0	20.3
3540	2014	7.4	6.1	8.1	8.3
3541	2015	8.3	2.3	21.7	108.8

115 rows × 5 columns

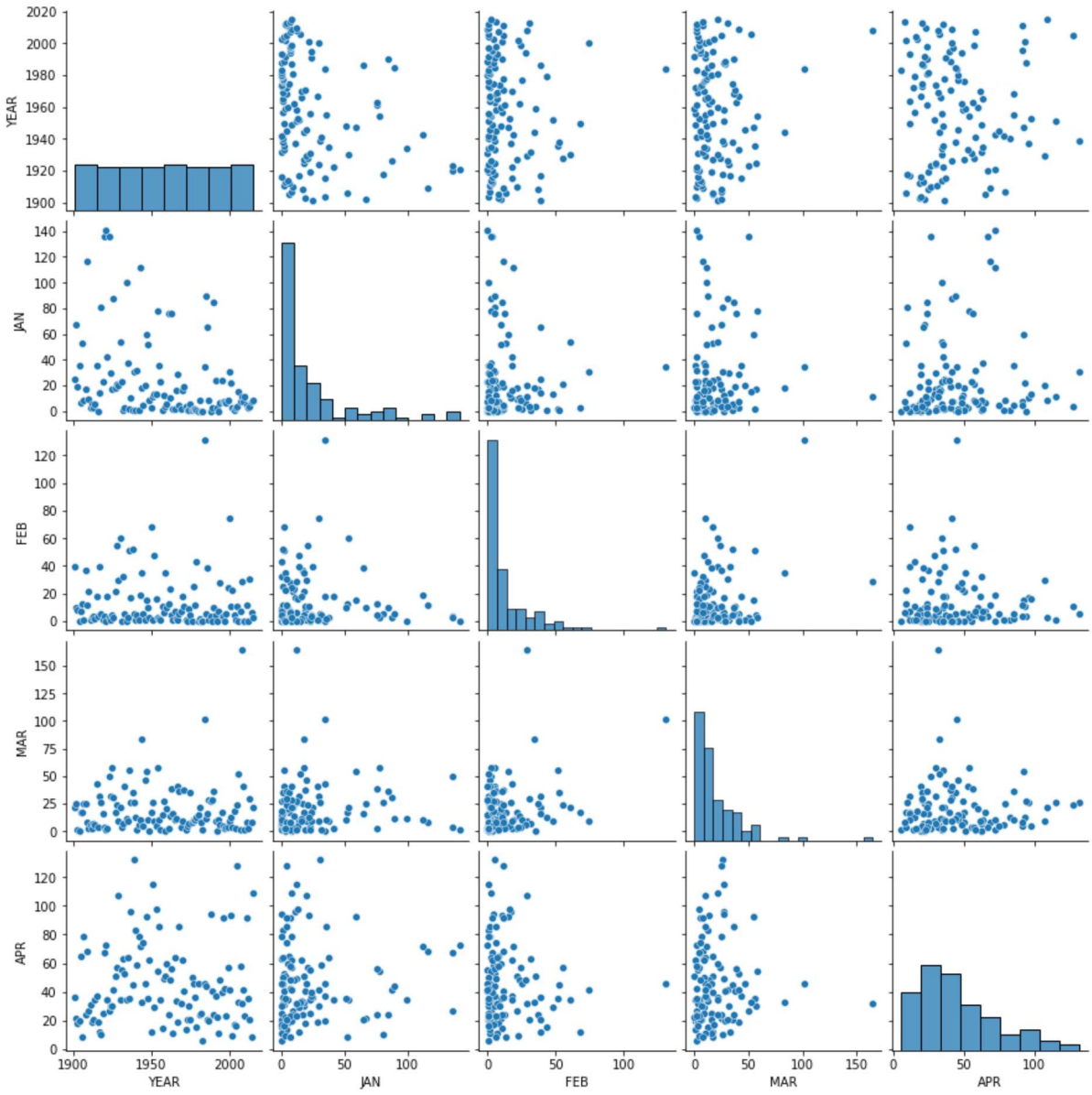
In [294]:
```
c.plot.line()
```

Out[294]: <AxesSubplot:>



In [295]:
```
sns.pairplot(c)
```

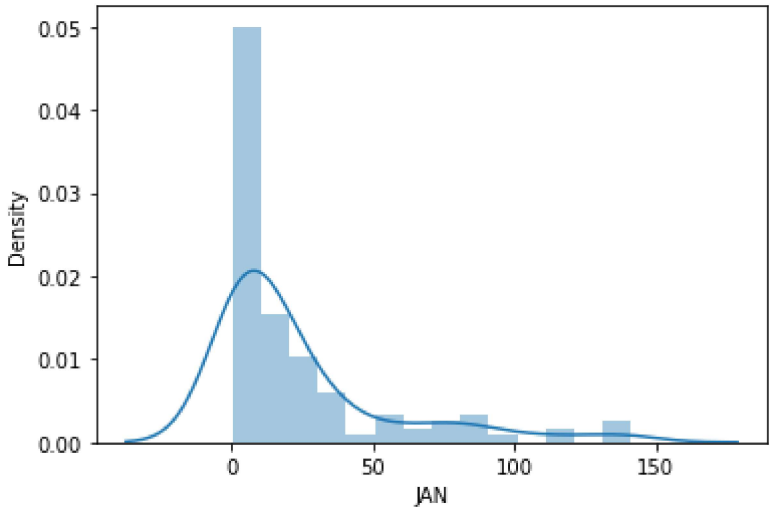
Out[295]:
```
<seaborn.axisgrid.PairGrid at 0x24b2c87c4f0>
```



In [296]:
```
sns.distplot(c['JAN'])
```

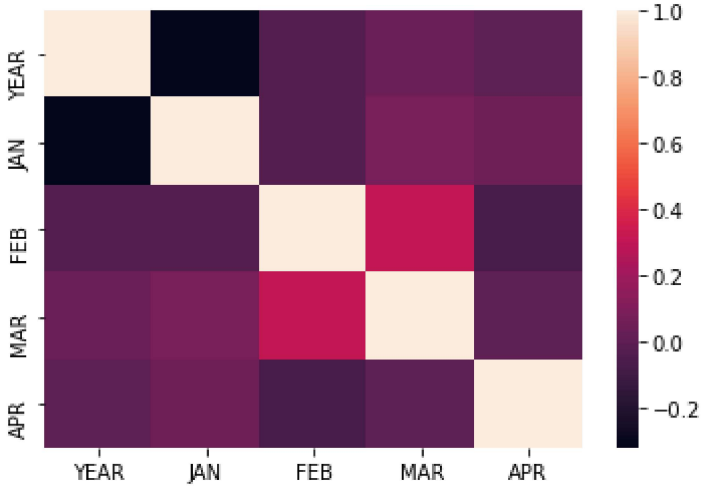
```
C:\ProgramData\Anaconda3\lib\site-packages\seaborn\distributions.py:2557: Fut
ureWarning: `distplot` is a deprecated function and will be removed in a futu
re version. Please adapt your code to use either `displot` (a figure-level fu
nction with similar flexibility) or `histplot` (an axes-level function for hi
stograms).
  warnings.warn(msg, FutureWarning)
```

Out[296]: <AxesSubplot:xlabel='JAN', ylabel='Density'>



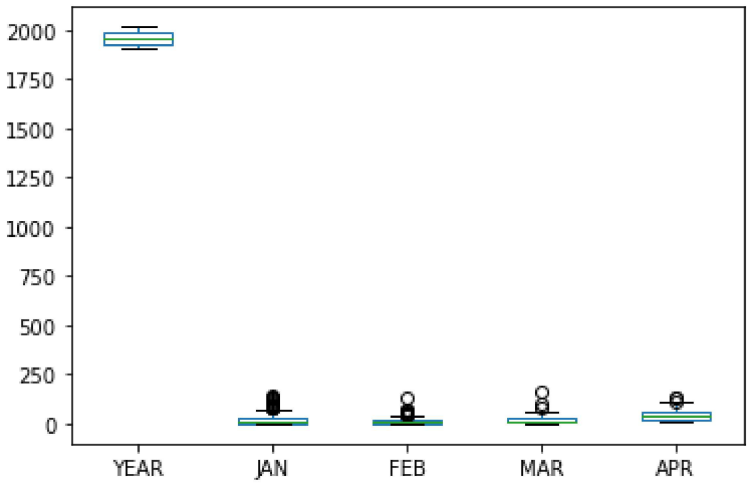
In [297]:
```
sns.heatmap(c.corr())
```

Out[297]: <AxesSubplot:>



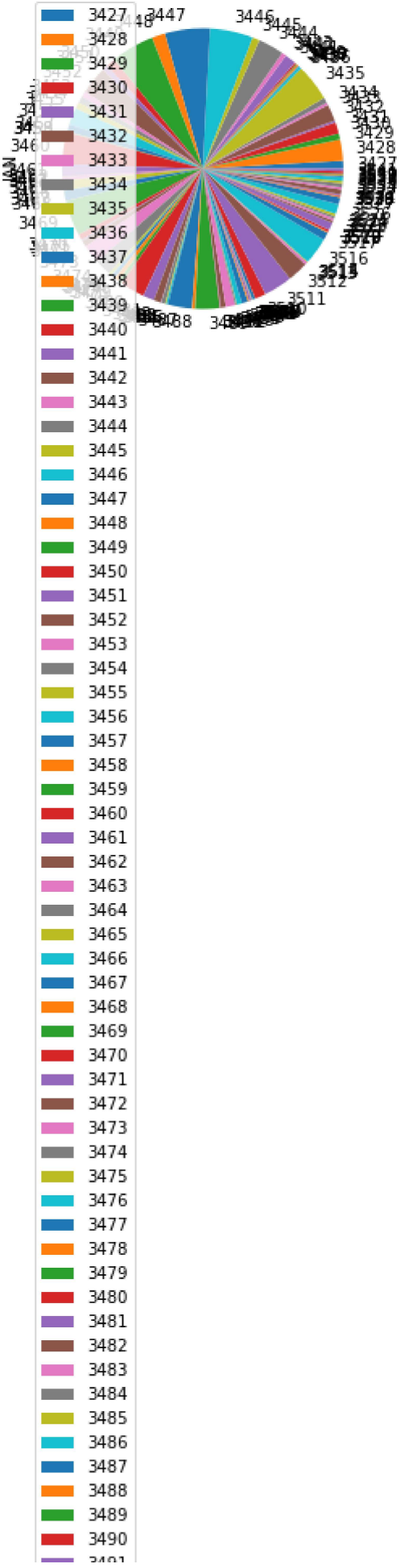
In [298]:
```
c.plot.box()
```

Out[298]: <AxesSubplot:>



In [299]:
```
c.plot.pie(y='JAN')
```

Out[299]:
```
<AxesSubplot:ylabel='JAN'>
```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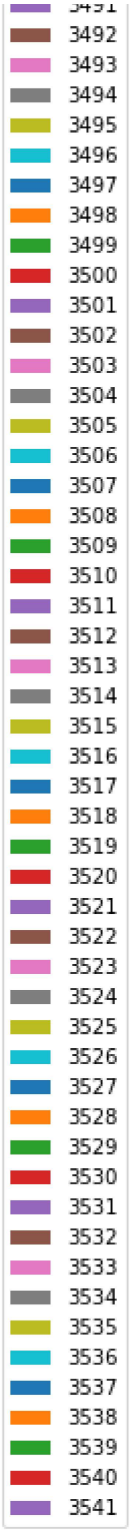


32. COASTAL KARNATAKA

In [300]:
```
b=a.head(3657)
b=b.tail(115)
b
```

Out[300]:

	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	1
3543	3543	COASTAL KARNATAKA	1902	3.2	0.3	4.9	10.2	54.6	698.4	1401.6	454.2	708.4	1
3544	3544	COASTAL KARNATAKA	1903	0.7	0.0	0.0	4.1	202.8	536.5	1405.5	593.8	304.4	1
3545	3545	COASTAL KARNATAKA	1904	2.4	0.0	4.8	23.7	93.2	1108.2	1070.0	465.6	245.3	1
3546	3546	COASTAL KARNATAKA	1905	0.0	0.2	0.0	6.4	83.1	767.3	777.3	586.9	172.9	2
...	...	...	...	...	...	...	...	...	...	...	...	...	...
3652	3652	COASTAL KARNATAKA	2011	4.8	3.8	8.7	66.1	49.3	1018.4	1080.5	861.3	545.2	1
3653	3653	COASTAL KARNATAKA	2012	NaN	11.4	5.1	77.0	22.9	650.9	754.6	1027.6	382.0	1
3654	3654	COASTAL KARNATAKA	2013	2.4	19.6	19.0	28.5	100.4	1153.0	1515.3	680.2	379.1	2
3655	3655	COASTAL KARNATAKA	2014	0.0	0.3	1.9	40.5	181.9	507.0	1155.4	1121.0	379.3	2
3656	3656	COASTAL KARNATAKA	2015	1.4	1.0	32.3	72.2	150.3	735.3	930.9	575.2	260.3	2

115 rows × 20 columns

In [301]:
```
c=b[['YEAR','JAN','FEB','MAR','APR']]
c
```

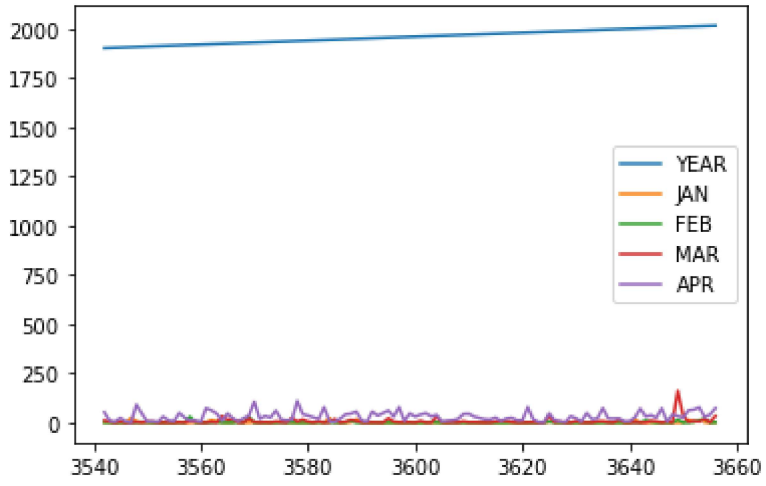
Out[301]:

	YEAR	JAN	FEB	MAR	APR
3542	1901	1.8	0.6	10.7	52.4
3543	1902	3.2	0.3	4.9	10.2
3544	1903	0.7	0.0	0.0	4.1
3545	1904	2.4	0.0	4.8	23.7
3546	1905	0.0	0.2	0.0	6.4
...	...	...	...	...	...
3652	2011	4.8	3.8	8.7	66.1
3653	2012	NaN	11.4	5.1	77.0
3654	2013	2.4	19.6	19.0	28.5
3655	2014	0.0	0.3	1.9	40.5
3656	2015	1.4	1.0	32.3	72.2

115 rows × 5 columns

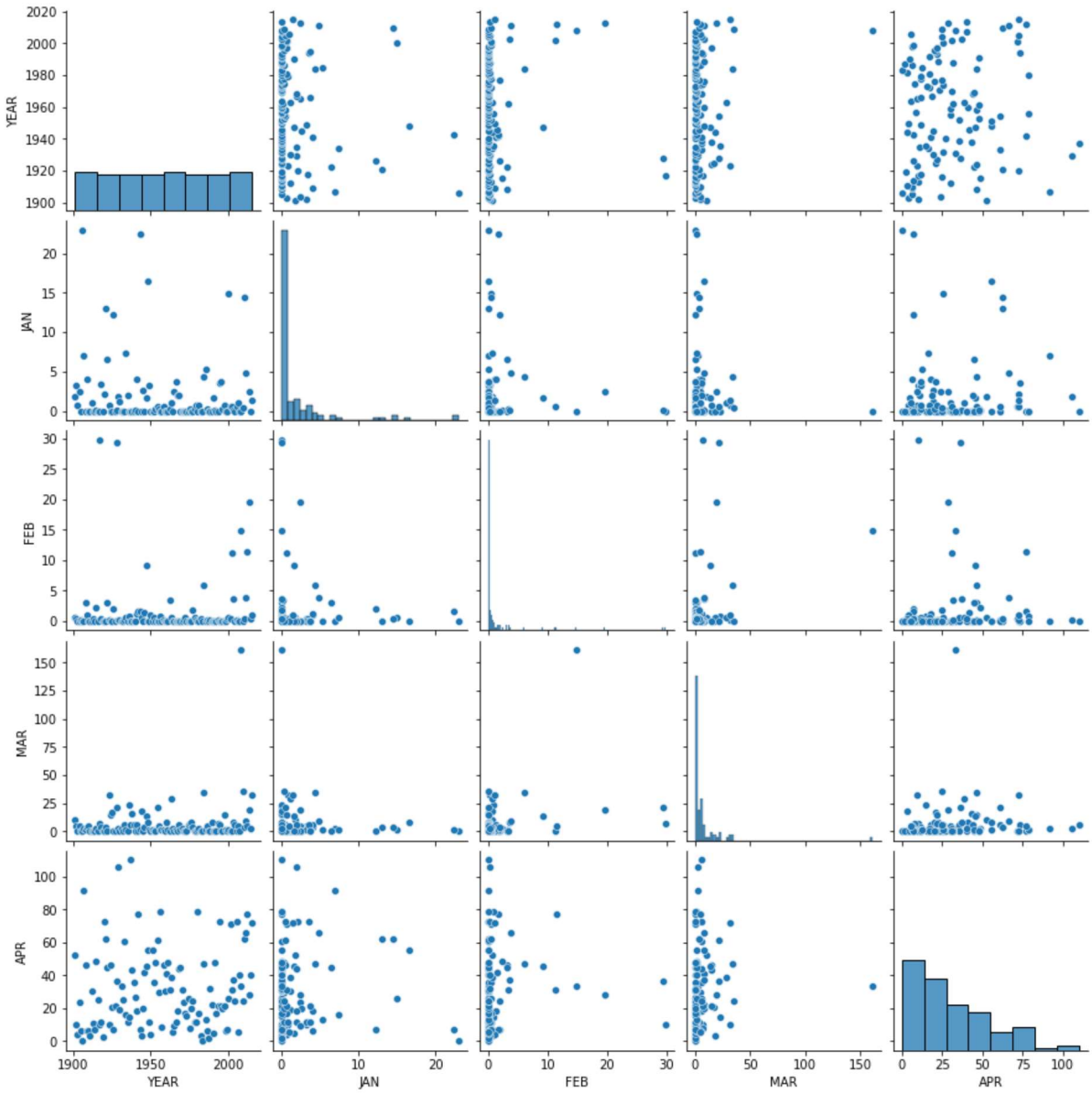
In [302]:
```
c.plot.line()
```

Out[302]: <AxesSubplot:>



In [303]:
```
sns.pairplot(c)
```

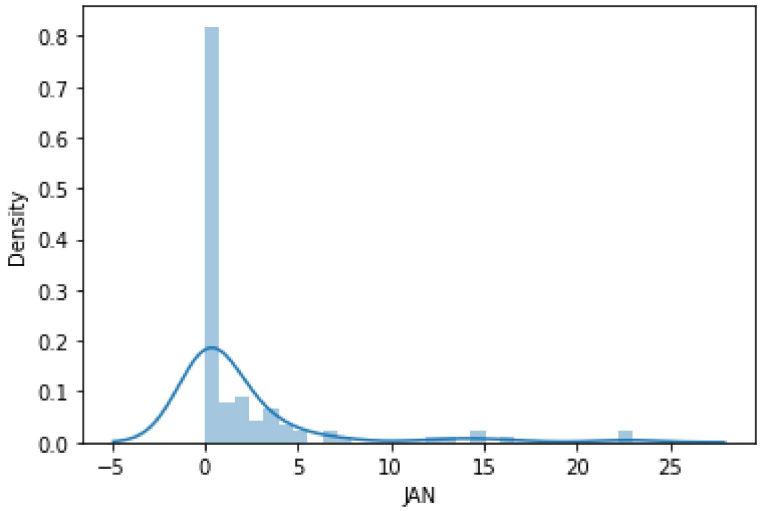
Out[303]:
```
<seaborn.axisgrid.PairGrid at 0x24b30fe8c70>
```



In [304]:
```
sns.distplot(c['JAN'])
```

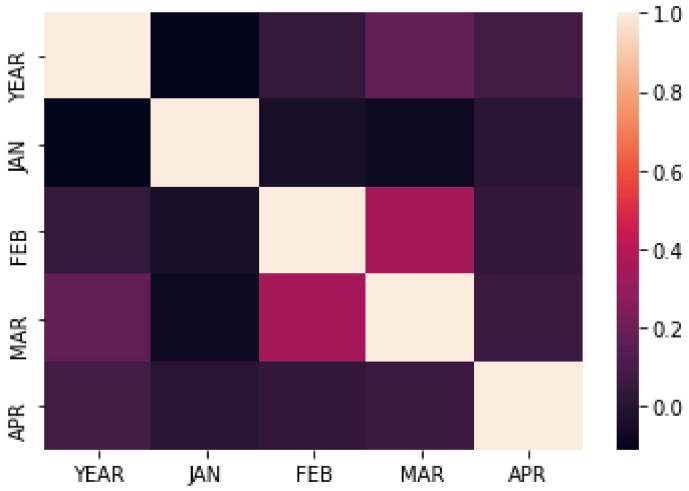
```
C:\ProgramData\Anaconda3\lib\site-packages\seaborn\distributions.py:2557: Fut
ureWarning: `distplot` is a deprecated function and will be removed in a futu
re version. Please adapt your code to use either `displot` (a figure-level fu
nction with similar flexibility) or `histplot` (an axes-level function for hi
stograms).
  warnings.warn(msg, FutureWarning)
```

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



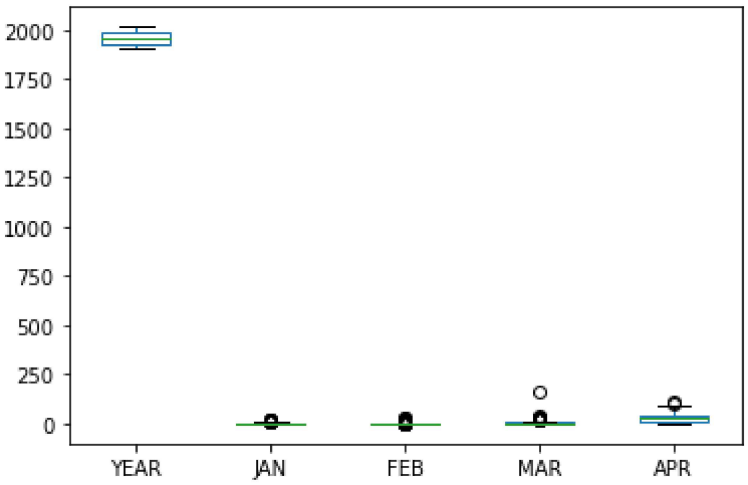
In [305]:
```
sns.heatmap(c.corr())
```

Out[305]: <AxesSubplot:>



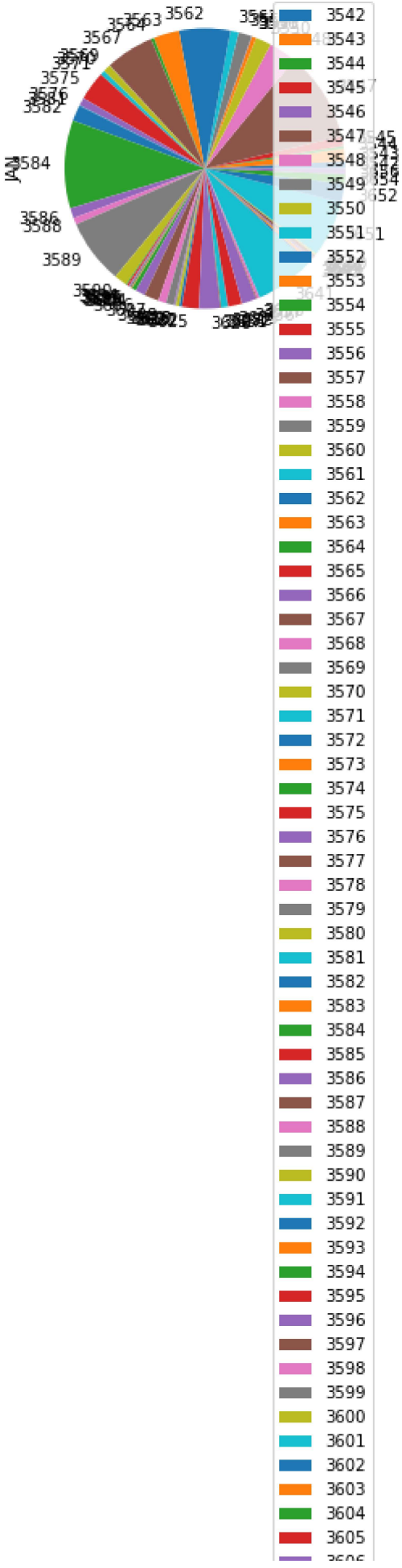
In [306]:
```
c.plot.box()
```

Out[306]: <AxesSubplot:>



In [307]:
```
c.plot.pie(y='JAN')
```

Out[307]:
```
<AxesSubplot:ylabel='JAN'>
```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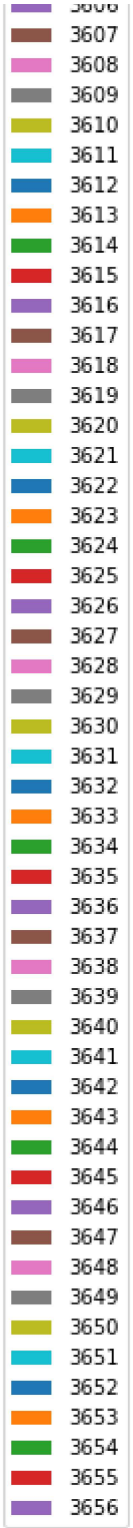


33. NORTH INTERIOR KARNATAKA

In [314]:
```
b=a.head(3772)
b
```

Out[314]:

	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
...	...	...	...	...	...	...	...	...	...	...	...	...	
3767	3767	NORTH INTERIOR KARNATAKA	2011	0.5	7.2	7.2	41.2	46.8	101.3	150.8	152.0	69.0	7
3768	3768	NORTH INTERIOR KARNATAKA	2012	28.5	6.2	0.4	35.4	19.5	60.0	114.5	105.5	79.2	8
3769	3769	NORTH INTERIOR KARNATAKA	2013	1.2	6.1	3.0	25.4	47.4	99.4	160.7	73.9	201.0	10
3770	3770	NORTH INTERIOR KARNATAKA	2014	0.0	6.1	29.2	26.4	93.0	50.4	136.8	205.2	90.2	8
3771	3771	NORTH INTERIOR KARNATAKA	2015	2.4	0.0	27.5	50.8	45.3	89.6	38.5	78.4	150.8	6

3772 rows × 20 columns

In [315]:
```
b=b.tail(114)
b
```

Out[315]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
3658	3658	NORTH INTERIOR KARNATAKA	1902	0.0	0.0	0.3	22.5	34.4	111.3	83.2	78.1	146.7	118.8
3659	3659	NORTH INTERIOR KARNATAKA	1903	3.5	0.0	0.1	6.9	53.4	102.8	209.4	146.4	189.3	166.4
3660	3660	NORTH INTERIOR KARNATAKA	1904	0.2	0.3	8.5	11.0	46.3	120.6	91.6	48.5	165.1	86.5
3661	3661	NORTH INTERIOR KARNATAKA	1905	0.0	6.0	2.6	16.0	51.2	99.6	60.1	139.2	42.2	85.0
3662	3662	NORTH INTERIOR KARNATAKA	1906	21.3	0.0	0.2	2.6	30.0	142.0	120.3	182.1	116.0	86.2
...	...	...	...	...	...	...	...	...	...	...	...	...	...
3767	3767	NORTH INTERIOR KARNATAKA	2011	0.5	7.2	7.2	41.2	46.8	101.3	150.8	152.0	69.0	73.4
3768	3768	NORTH INTERIOR KARNATAKA	2012	28.5	6.2	0.4	35.4	19.5	60.0	114.5	105.5	79.2	85.2
3769	3769	NORTH INTERIOR KARNATAKA	2013	1.2	6.1	3.0	25.4	47.4	99.4	160.7	73.9	201.0	101.0
3770	3770	NORTH INTERIOR KARNATAKA	2014	0.0	6.1	29.2	26.4	93.0	50.4	136.8	205.2	90.2	80.3
3771	3771	NORTH INTERIOR KARNATAKA	2015	2.4	0.0	27.5	50.8	45.3	89.6	38.5	78.4	150.8	61.2

114 rows × 20 columns

In [316]:
```
c=b[['YEAR','JAN','FEB','MAR','APR']]
c
```

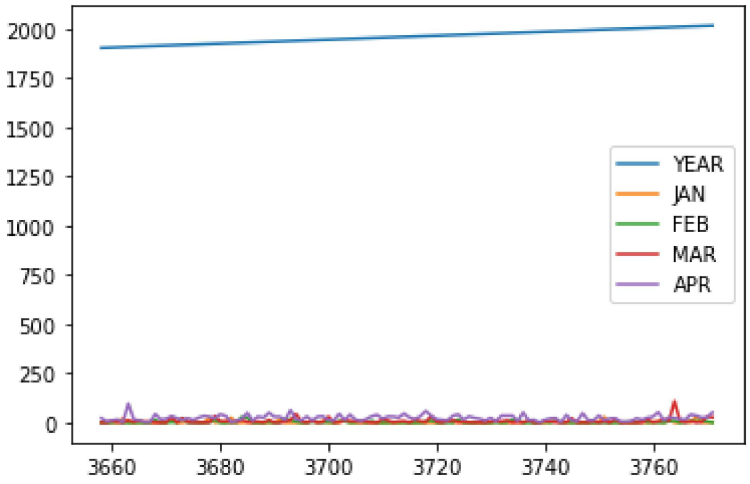
Out[316]:

	YEAR	JAN	FEB	MAR	APR
3658	1902	0.0	0.0	0.3	22.5
3659	1903	3.5	0.0	0.1	6.9
3660	1904	0.2	0.3	8.5	11.0
3661	1905	0.0	6.0	2.6	16.0
3662	1906	21.3	0.0	0.2	2.6
...	...	...	...	...	...
3767	2011	0.5	7.2	7.2	41.2
3768	2012	28.5	6.2	0.4	35.4
3769	2013	1.2	6.1	3.0	25.4
3770	2014	0.0	6.1	29.2	26.4
3771	2015	2.4	0.0	27.5	50.8

114 rows × 5 columns

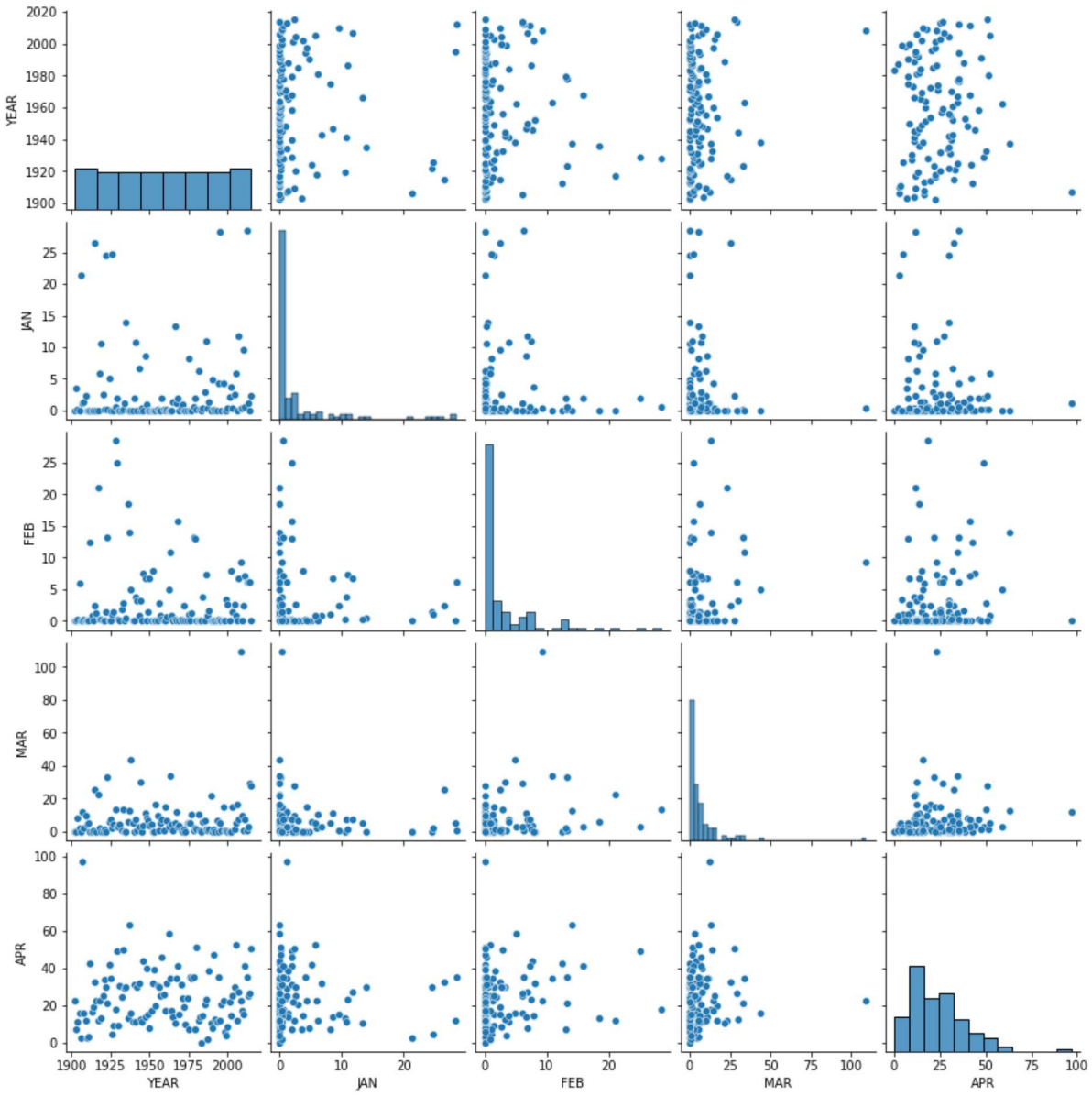
In [317]:
```
c.plot.line()
```

Out[317]: <AxesSubplot:>



In [318]:
```
sns.pairplot(c)
```

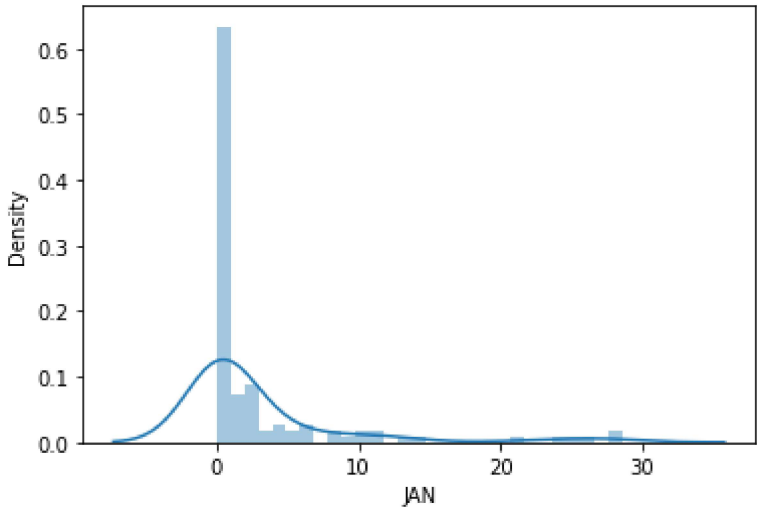
Out[318]:
```
<seaborn.axisgrid.PairGrid at 0x24b346c9cd0>
```



In [319]:
```
sns.distplot(c['JAN'])
```

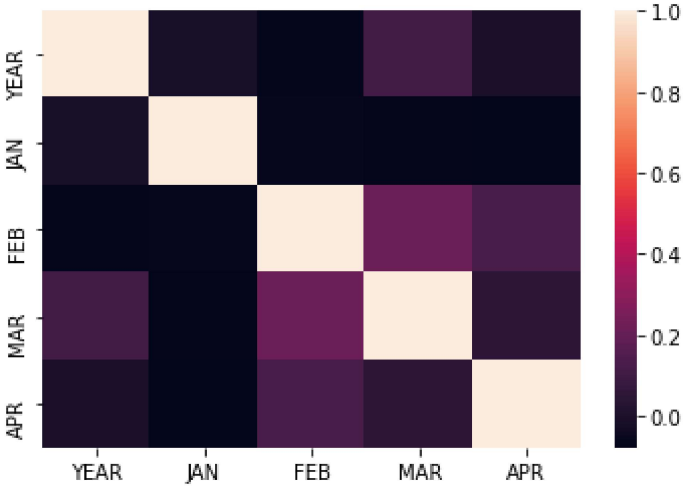
```
C:\ProgramData\Anaconda3\lib\site-packages\seaborn\distributions.py:2557: Fut
ureWarning: `distplot` is a deprecated function and will be removed in a futu
re version. Please adapt your code to use either `displot` (a figure-level fu
nction with similar flexibility) or `histplot` (an axes-level function for hi
stograms).
  warnings.warn(msg, FutureWarning)
```

Out[319]: <AxesSubplot:xlabel='JAN', ylabel='Density'>



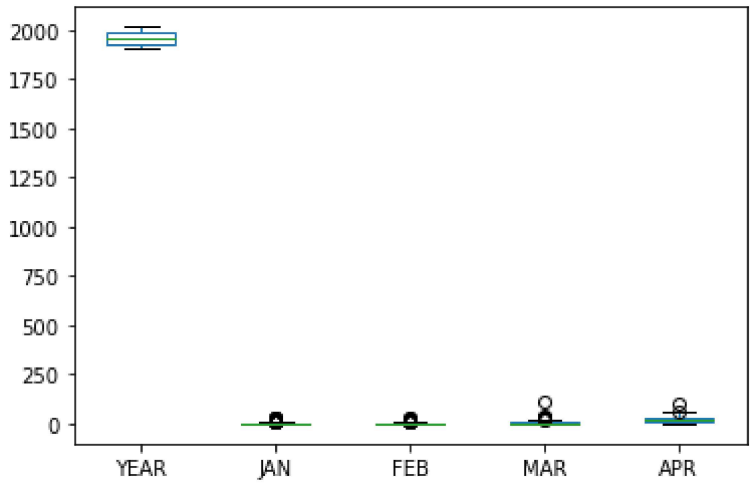
In [320]:
```
sns.heatmap(c.corr())
```

Out[320]: <AxesSubplot:>



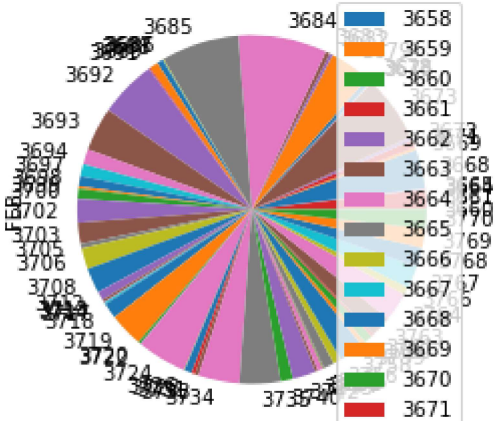
In [321]:
```
c.plot.box()
```

Out[321]: <AxesSubplot:>



In [322]:
```
c.plot.pie(y='FEB')
```

Out[322]:
```
<AxesSubplot:ylabel='FEB'>
```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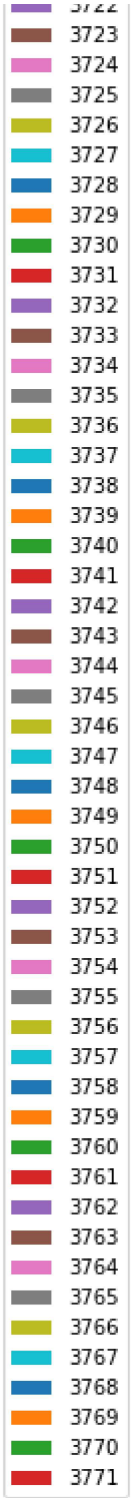


34. SOUTH INTERIOR KARNATAKA

In [323]:
```
b=a.head(3887)
b
```

Out[323]:

	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
...	...	...	...	...	...	...	...	...	...	...	...	...	
3882	3882	SOUTH INTERIOR KARNATAKA	2011	2.1	12.4	12.4	80.2	83.5	177.1	202.4	199.5	111.2	14
3883	3883	SOUTH INTERIOR KARNATAKA	2012	4.6	5.5	8.1	99.0	45.6	81.8	144.7	236.5	100.6	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	10
3885	3885	SOUTH INTERIOR KARNATAKA	2014	0.4	2.4	17.7	46.7	130.5	106.8	271.6	254.6	161.6	15
3886	3886	SOUTH INTERIOR KARNATAKA	2015	1.7	0.2	24.4	80.5	125.3	218.7	112.0	136.6	164.5	10

3887 rows × 20 columns

In [324]:
```
b=b.tail(114)
b
```

Out[324]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OC
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.
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.
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.
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.
3777	3777	SOUTH INTERIOR KARNATAKA	1906	14.1	1.5	2.2	4.8	46.1	116.4	211.3	256.3	109.5	173.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	.
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.
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.
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.
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.
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.

114 rows × 20 columns

In [325]:
```
c=b[['YEAR','JAN','FEB','MAR','APR','MAY','JUN']]
c
```

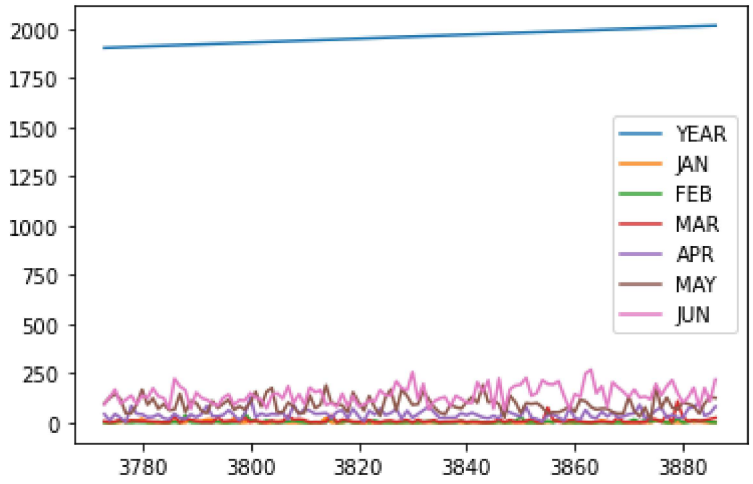
Out[325]:

	YEAR	JAN	FEB	MAR	APR	MAY	JUN
3773	1902	1.9	0.5	6.7	42.6	97.7	91.7
3774	1903	0.3	0.0	1.1	11.6	125.1	129.7
3775	1904	1.0	0.5	5.2	43.5	144.7	167.9
3776	1905	1.7	7.9	14.2	23.6	118.6	95.9
3777	1906	14.1	1.5	2.2	4.8	46.1	116.4
...	...	...	...	...	...	...	...
3882	2011	2.1	12.4	12.4	80.2	83.5	177.1
3883	2012	4.6	5.5	8.1	99.0	45.6	81.8
3884	2013	0.5	10.1	11.7	34.6	95.6	176.2
3885	2014	0.4	2.4	17.7	46.7	130.5	106.8
3886	2015	1.7	0.2	24.4	80.5	125.3	218.7

114 rows × 7 columns

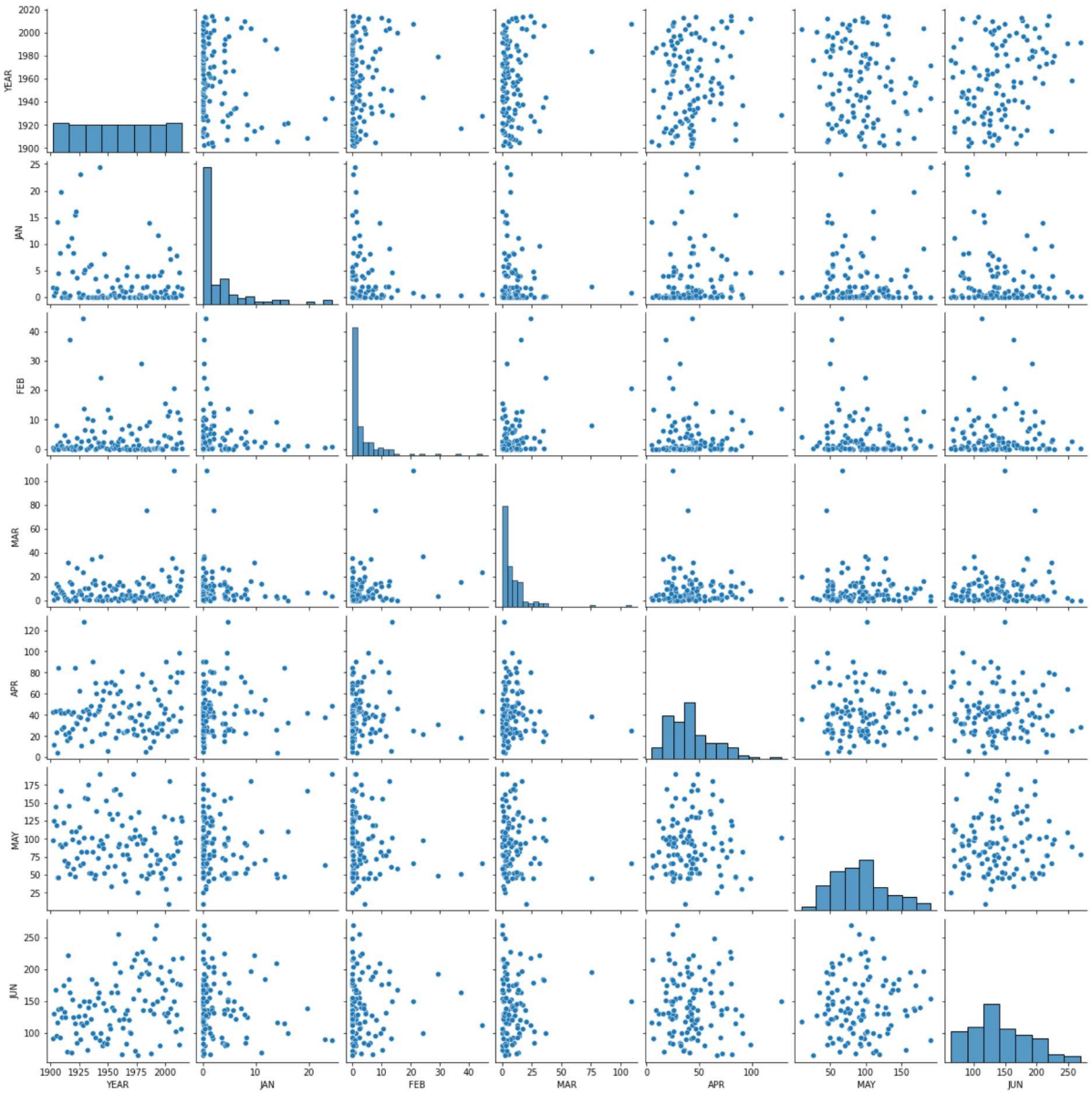
In [326]:
```
c.plot.line()
```

Out[326]: <AxesSubplot:>



In [327]:
```
sns.pairplot(c)
```

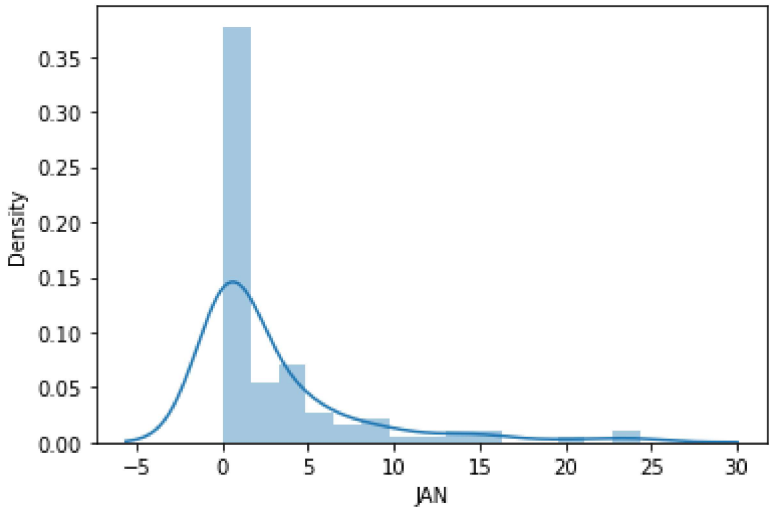
Out[327]:
```
<seaborn.axisgrid.PairGrid at 0x24b36362ee0>
```



In [328]:
```
sns.distplot(c['JAN'])
```

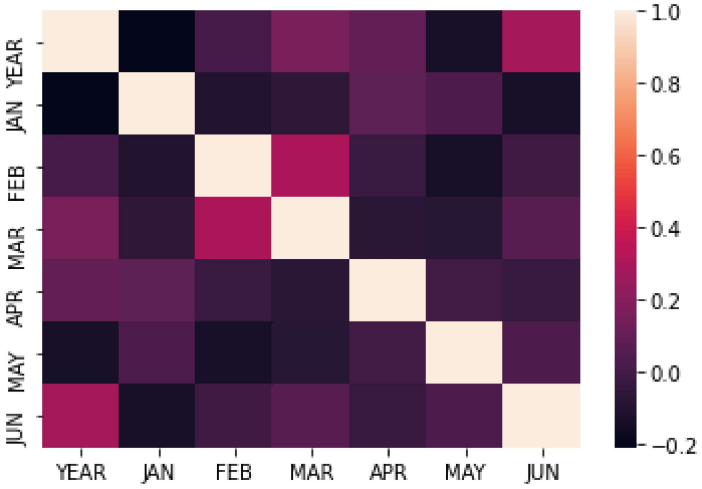
```
C:\ProgramData\Anaconda3\lib\site-packages\seaborn\distributions.py:2557: Fut
ureWarning: `distplot` is a deprecated function and will be removed in a futu
re version. Please adapt your code to use either `displot` (a figure-level fu
nction with similar flexibility) or `histplot` (an axes-level function for hi
stograms).
  warnings.warn(msg, FutureWarning)
```

Out[328]: <AxesSubplot:xlabel='JAN', ylabel='Density'>



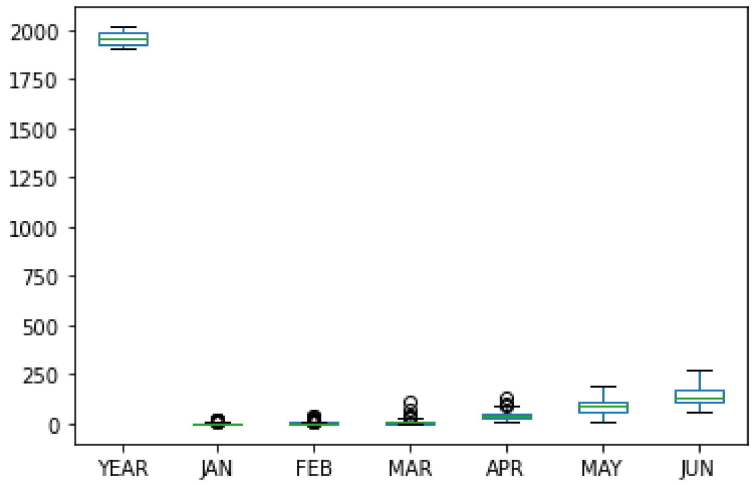
In [329]:
```
sns.heatmap(c.corr())
```

Out[329]: <AxesSubplot:>



In [330]:
```
c.plot.box()
```

Out[330]: <AxesSubplot:>



35. KERALA

In [331]:
```
b=a.head(4002)
b=b.tail(115)
b
```

Out[331]:

	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	2
3888	3888	KERALA	1902	6.7	2.6	57.3	83.9	134.5	390.9	1205.0	315.8	491.6	3
3889	3889	KERALA	1903	3.2	18.6	3.1	83.6	249.7	558.6	1022.5	420.2	341.8	3
3890	3890	KERALA	1904	23.7	3.0	32.2	71.5	235.7	1098.2	725.5	351.8	222.7	3
3891	3891	KERALA	1905	1.2	22.3	9.4	105.9	263.3	850.2	520.5	293.6	217.2	3
...	...	...	...	...	...	...	...	...	...	...	...	...	...
3997	3997	KERALA	2011	20.5	45.7	24.1	165.2	124.2	788.5	536.8	492.7	391.2	2
3998	3998	KERALA	2012	7.4	11.0	21.0	171.1	95.3	430.3	362.6	501.6	241.1	1
3999	3999	KERALA	2013	3.9	40.1	49.9	49.3	119.3	1042.7	830.2	369.7	318.6	2
4000	4000	KERALA	2014	4.6	10.3	17.9	95.7	251.0	454.4	677.8	733.9	298.8	3
4001	4001	KERALA	2015	3.1	5.8	50.1	214.1	201.8	563.6	406.0	252.2	292.9	3

115 rows × 20 columns

In [332]:
```
c=b[['YEAR','JAN','FEB','MAR','APR','MAY','JUN']]
c
```

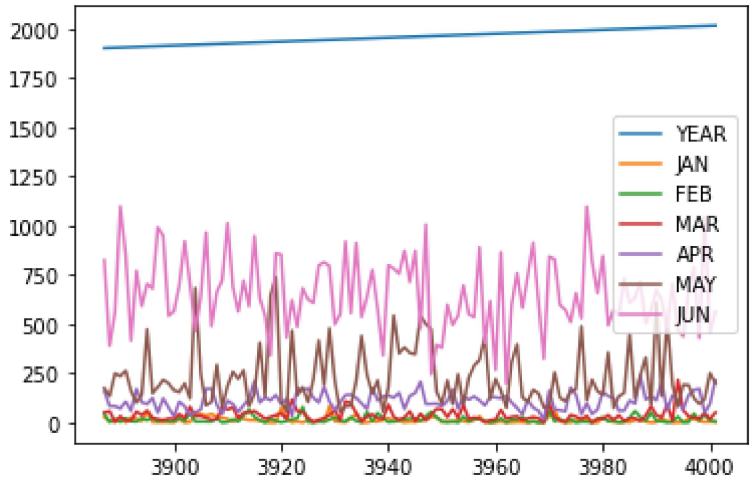
Out[332]:

	YEAR	JAN	FEB	MAR	APR	MAY	JUN
3887	1901	28.7	44.7	51.6	160.0	174.7	824.6
3888	1902	6.7	2.6	57.3	83.9	134.5	390.9
3889	1903	3.2	18.6	3.1	83.6	249.7	558.6
3890	1904	23.7	3.0	32.2	71.5	235.7	1098.2
3891	1905	1.2	22.3	9.4	105.9	263.3	850.2
...	...	...	...	...	...	...	...
3997	2011	20.5	45.7	24.1	165.2	124.2	788.5
3998	2012	7.4	11.0	21.0	171.1	95.3	430.3
3999	2013	3.9	40.1	49.9	49.3	119.3	1042.7
4000	2014	4.6	10.3	17.9	95.7	251.0	454.4
4001	2015	3.1	5.8	50.1	214.1	201.8	563.6

115 rows × 7 columns

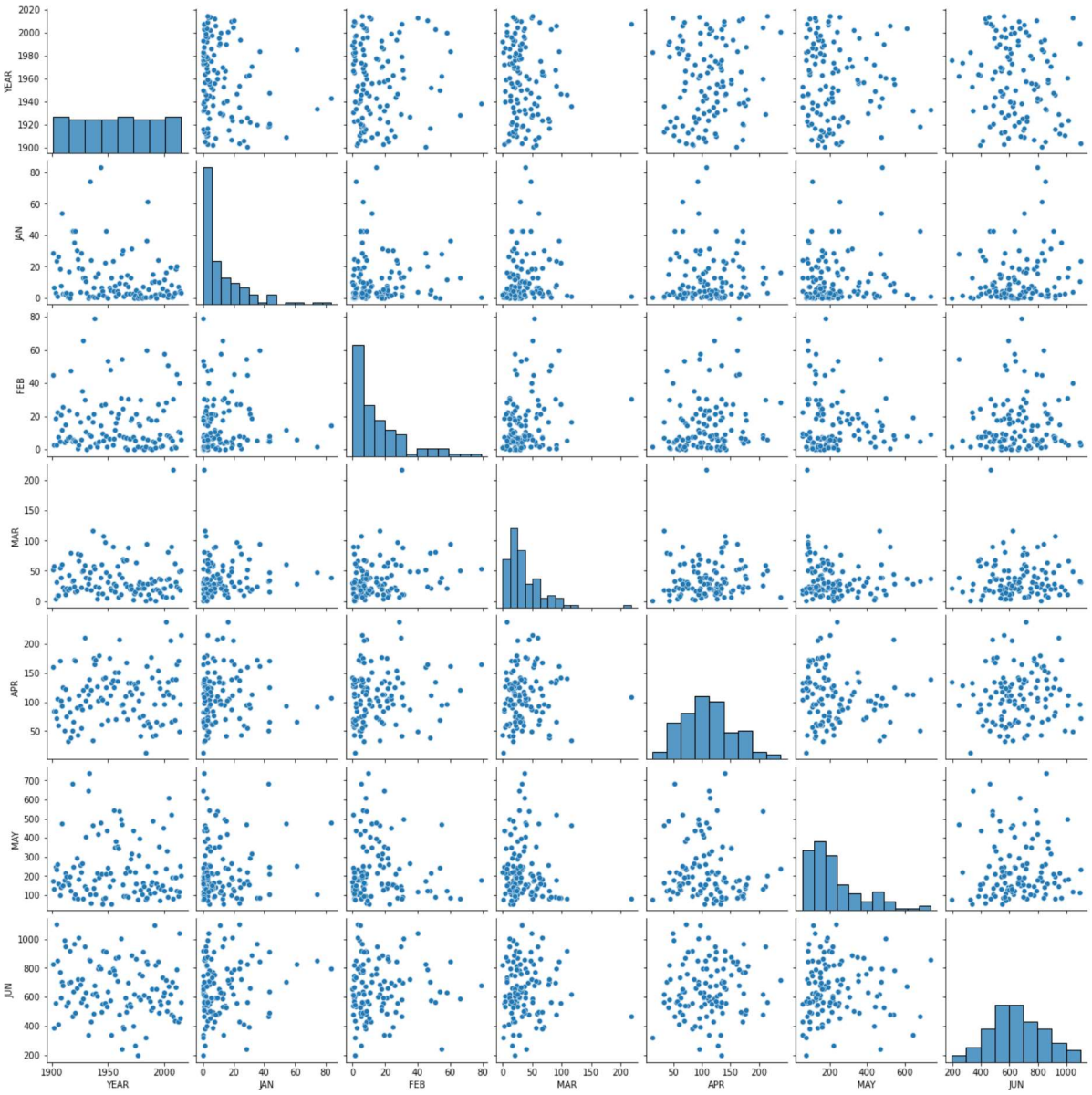
In [333]:
```
c.plot.line()
```

Out[333]: <AxesSubplot:>



In [334]:
```
sns.pairplot(c)
```

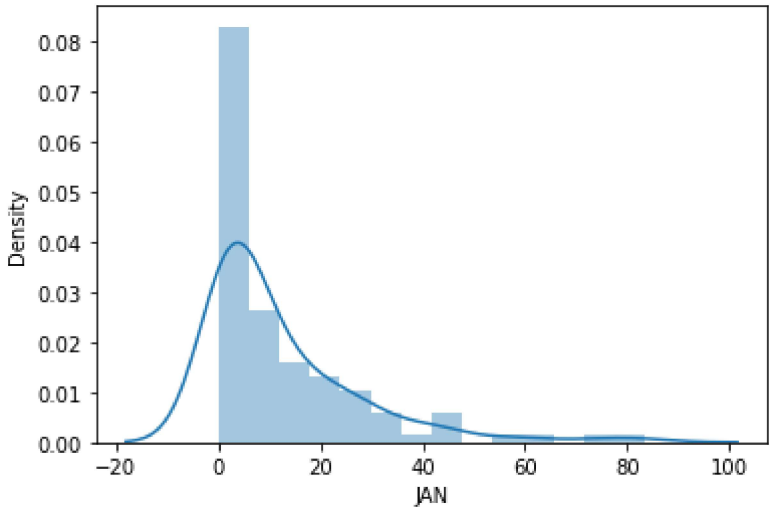
Out[334]:
```
<seaborn.axisgrid.PairGrid at 0x24b39338f10>
```



In [335]:
```
sns.distplot(c['JAN'])
```

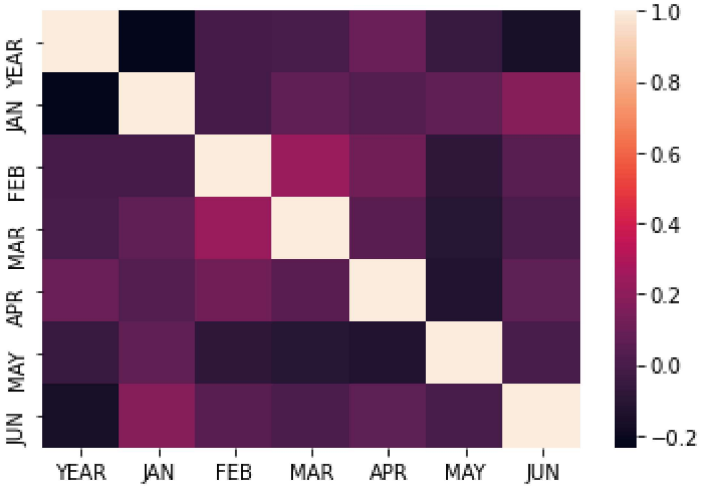
```
C:\ProgramData\Anaconda3\lib\site-packages\seaborn\distributions.py:2557: Fut
ureWarning: `distplot` is a deprecated function and will be removed in a futu
re version. Please adapt your code to use either `displot` (a figure-level fu
nction with similar flexibility) or `histplot` (an axes-level function for hi
stograms).
  warnings.warn(msg, FutureWarning)
```

Out[335]: <AxesSubplot:xlabel='JAN', ylabel='Density'>



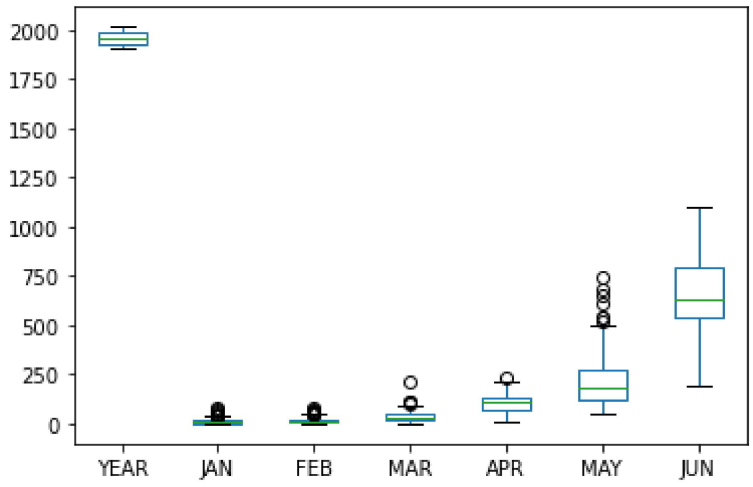
In [336]:
```
sns.heatmap(c.corr())
```

Out[336]: <AxesSubplot:>



In [337]:
```
c.plot.box()
```

Out[337]: <AxesSubplot:>



In [338]:
```
c.plot.pie(y='MAR')
```

Out[338]:
```
<AxesSubplot:ylabel='MAR'>
```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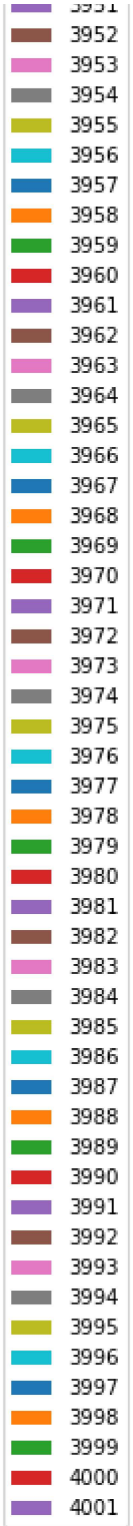


36. LAKSHADWEEP

In [341]:
```
b=a.head(4116)
b=b.tail(113)
b
```

Out[341]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	C
4003	4003	LAKSHADWEEP	1902	99.3	9.6	32.6	40.4	179.1	374.2	413.3	170.0	214.3	38
4004	4004	LAKSHADWEEP	1903	63.5	95.0	0.0	29.5	144.1	212.4	261.8	202.0	292.1	7
4005	4005	LAKSHADWEEP	1904	0.0	0.0	13.5	13.2	143.3	261.3	256.0	38.9	219.9	15
4006	4006	LAKSHADWEEP	1905	62.4	0.0	0.0	0.0	166.7	400.7	68.7	377.5	107.5	23
4007	4007	LAKSHADWEEP	1906	17.8	0.0	24.4	33.8	213.0	465.0	348.6	260.5	25.9	25
...	...	...	...	...	...	...	...	...	...	...	...	...	...
4111	4111	LAKSHADWEEP	2011	5.1	2.8	3.1	85.9	107.2	153.6	350.2	254.0	255.2	1
4112	4112	LAKSHADWEEP	2012	19.2	0.1	1.6	76.8	21.2	327.0	231.5	381.2	179.8	14
4113	4113	LAKSHADWEEP	2013	26.2	34.4	37.5	5.3	88.3	426.2	296.4	154.4	180.0	7
4114	4114	LAKSHADWEEP	2014	53.2	16.1	4.4	14.9	57.4	244.1	116.1	466.1	132.2	16
4115	4115	LAKSHADWEEP	2015	2.2	0.5	3.7	87.1	133.1	296.6	257.5	146.4	160.4	16

113 rows × 20 columns

In [342]:
```
c=b[['YEAR','JAN','FEB','MAR','APR','MAY','JUN']]
c
```

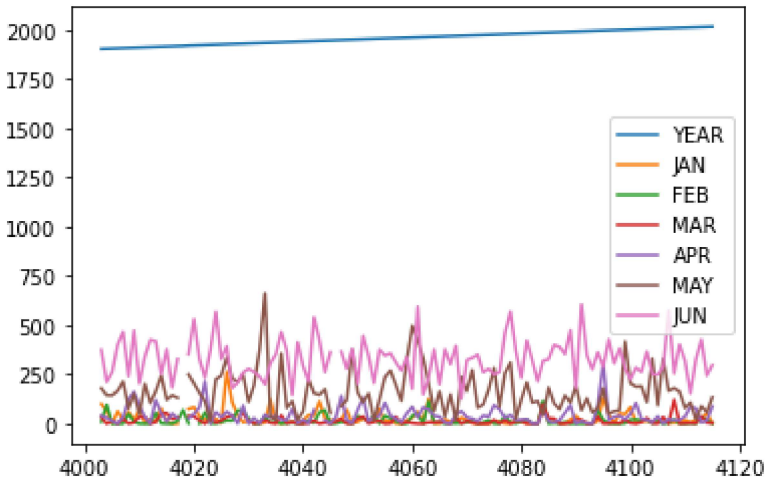
Out[342]:

	YEAR	JAN	FEB	MAR	APR	MAY	JUN
4003	1902	99.3	9.6	32.6	40.4	179.1	374.2
4004	1903	63.5	95.0	0.0	29.5	144.1	212.4
4005	1904	0.0	0.0	13.5	13.2	143.3	261.3
4006	1905	62.4	0.0	0.0	0.0	166.7	400.7
4007	1906	17.8	0.0	24.4	33.8	213.0	465.0
...	...	...	...	...	...	...	...
4111	2011	5.1	2.8	3.1	85.9	107.2	153.6
4112	2012	19.2	0.1	1.6	76.8	21.2	327.0
4113	2013	26.2	34.4	37.5	5.3	88.3	426.2
4114	2014	53.2	16.1	4.4	14.9	57.4	244.1
4115	2015	2.2	0.5	3.7	87.1	133.1	296.6

113 rows × 7 columns

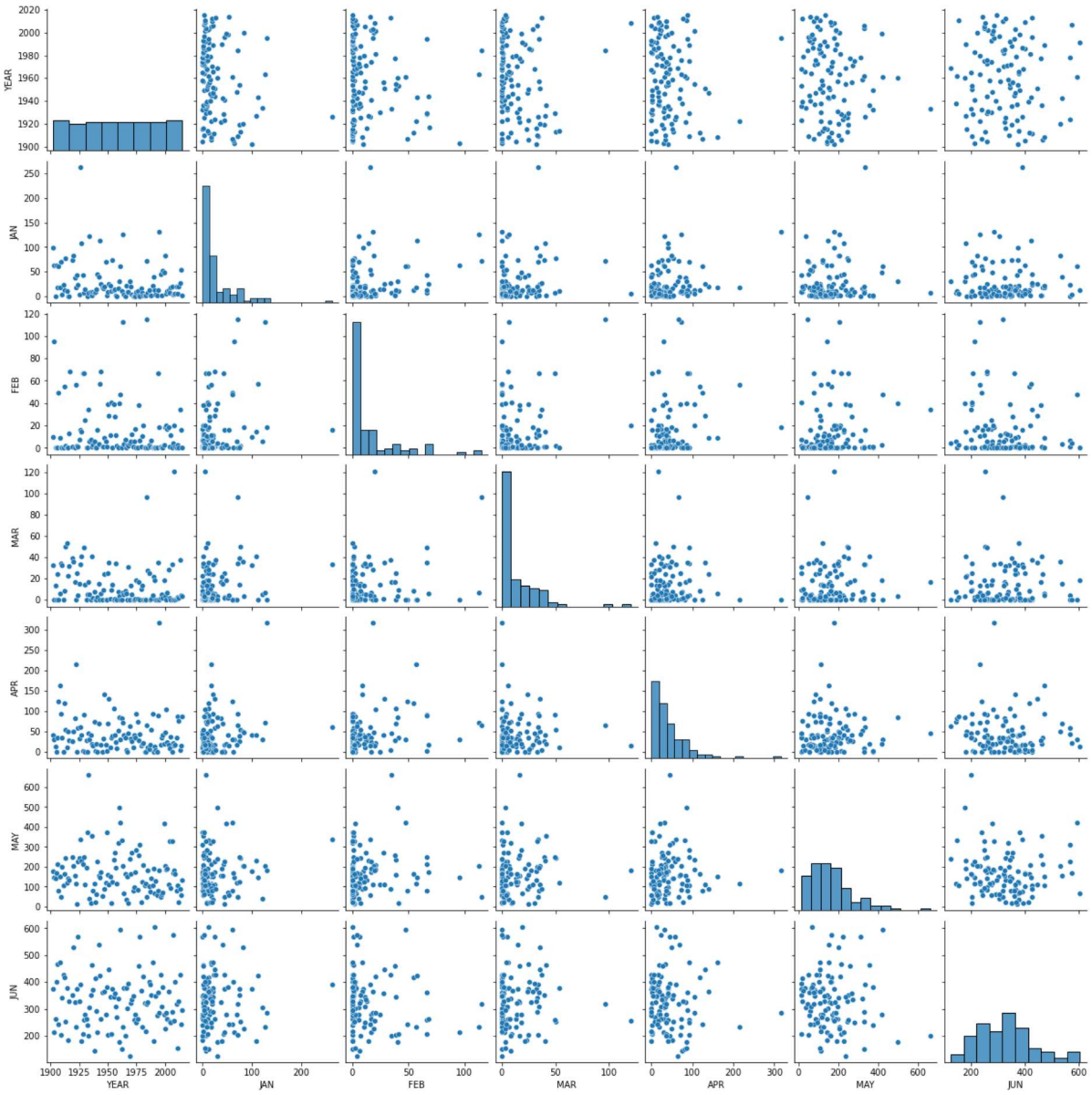
In [343]:
```
c.plot.line()
```

Out[343]: <AxesSubplot:>



In [344]:
```
sns.pairplot(c)
```

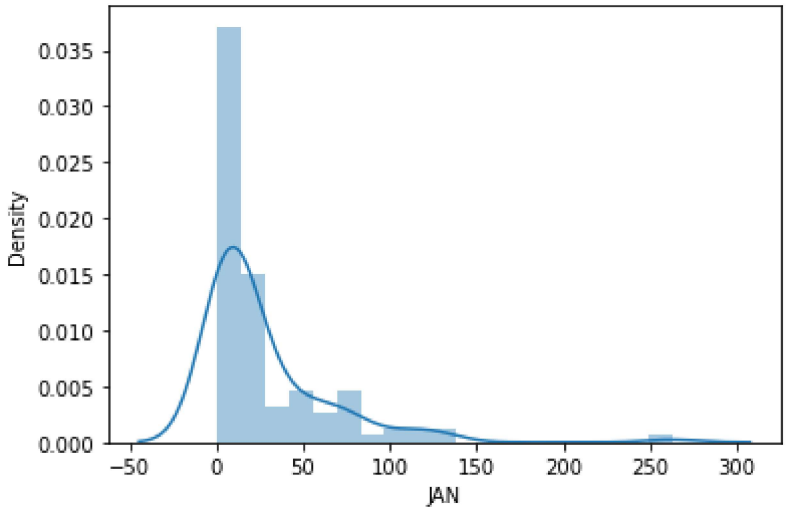
Out[344]:
```
<seaborn.axisgrid.PairGrid at 0x24b3c215e20>
```



In [345]:
```
sns.distplot(c['JAN'])
```

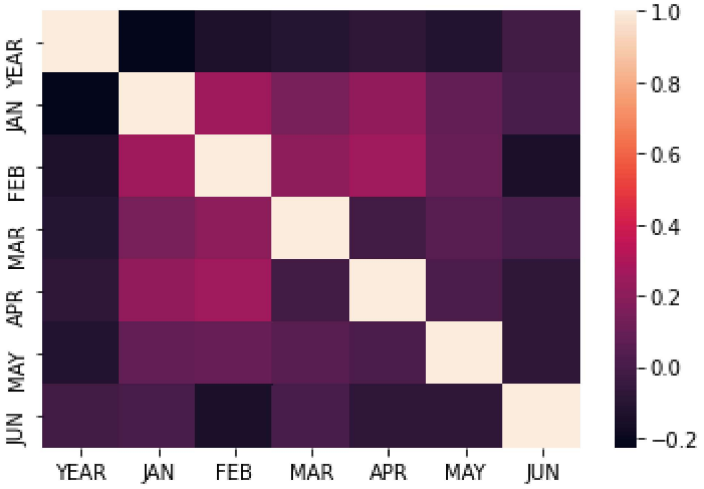
```
C:\ProgramData\Anaconda3\lib\site-packages\seaborn\distributions.py:2557: Fut
ureWarning: `distplot` is a deprecated function and will be removed in a futu
re version. Please adapt your code to use either `displot` (a figure-level fu
nction with similar flexibility) or `histplot` (an axes-level function for hi
stograms).
  warnings.warn(msg, FutureWarning)
```

Out[345]: <AxesSubplot:xlabel='JAN', ylabel='Density'>



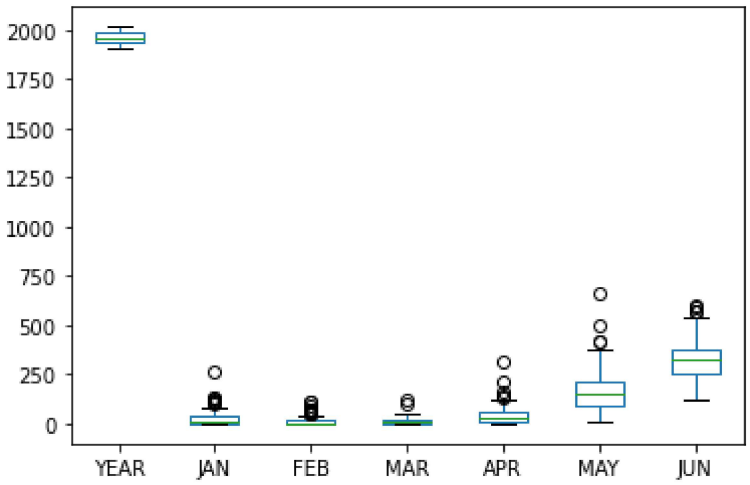
In [346]:
```
sns.heatmap(c.corr())
```

Out[346]: <AxesSubplot:>



In [347]:
```
c.plot.box()
```

Out[347]: <AxesSubplot:>



In [348]:
```
c.plot.pie(y='JAN')
```

Out[348]:
```
<AxesSubplot:ylabel='JAN'>
```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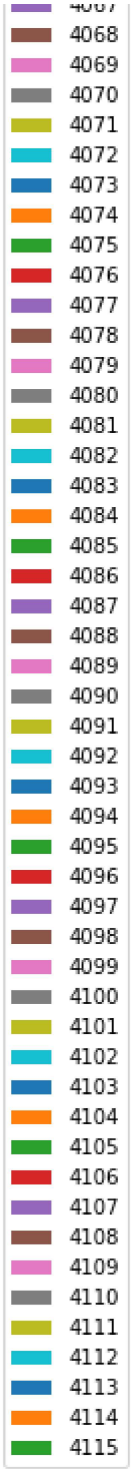
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In [ ]:

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