

```
In [1]: import numpy as np
import pandas as pd
```

```
In [2]: x=pd.read_csv(r"C:\Users\user\Downloads\3_Fitness-1 - 3_Fitness-1.csv")
x
```

Out[2]:

	Row Labels	Sum of Jan	Sum of Feb	Sum of Mar	Sum of Total Sales
0	A	5.62%	7.73%	6.16%	75
1	B	4.21%	17.27%	19.21%	160
2	C	9.83%	11.60%	5.17%	101
3	D	2.81%	21.91%	7.88%	127
4	E	25.28%	10.57%	11.82%	179
5	F	8.15%	16.24%	18.47%	167
6	G	18.54%	8.76%	17.49%	171
7	H	25.56%	5.93%	13.79%	170
8	Grand Total	100.00%	100.00%	100.00%	1150

```
In [5]: x.head(4)
```

Out[5]:

	Row Labels	Sum of Jan	Sum of Feb	Sum of Mar	Sum of Total Sales
0	A	5.62%	7.73%	6.16%	75
1	B	4.21%	17.27%	19.21%	160
2	C	9.83%	11.60%	5.17%	101
3	D	2.81%	21.91%	7.88%	127

```
In [4]: x.tail(2)
```

Out[4]:

	Row Labels	Sum of Jan	Sum of Feb	Sum of Mar	Sum of Total Sales
7	H	25.56%	5.93%	13.79%	170
8	Grand Total	100.00%	100.00%	100.00%	1150

```
In [7]: x.index
```

Out[7]: RangeIndex(start=0, stop=9, step=1)

In [8]: x.describe

Out[8]: <bound method NDFrame.describe of

	Row Labels	Sum of Jan	Sum of Feb	Sum of Mar	Sum of Total Sales
0	A	5.62%	7.73%	6.16%	75
1	B	4.21%	17.27%	19.21%	160
2	C	9.83%	11.60%	5.17%	101
3	D	2.81%	21.91%	7.88%	127
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5	F	8.15%	16.24%	18.47%	167
6	G	18.54%	8.76%	17.49%	171
7	H	25.56%	5.93%	13.79%	170
8	Grand Total	100.00%	100.00%	100.00%	1150

In [10]: x.dtypes

Out[10]:

Row Labels	object
Sum of Jan	object
Sum of Feb	object
Sum of Mar	object
Sum of Total Sales	int64
dtype:	object

In [12]: x["Sum of Total Sales"]

Out[12]:

0	75
1	160
2	101
3	127
4	179
5	167
6	171
7	170
8	1150

Name: Sum of Total Sales, dtype: int64

In [13]: x.loc[1:3]

Out[13]:

	Row Labels	Sum of Jan	Sum of Feb	Sum of Mar	Sum of Total Sales
1	B	4.21%	17.27%	19.21%	160
2	C	9.83%	11.60%	5.17%	101
3	D	2.81%	21.91%	7.88%	127

In [14]: x.iloc[1:3]

Out[14]:

	Row Labels	Sum of Jan	Sum of Feb	Sum of Mar	Sum of Total Sales
1	B	4.21%	17.27%	19.21%	160
2	C	9.83%	11.60%	5.17%	101

```
In [15]: x.isna()
```

```
Out[15]:
```

	Row Labels	Sum of Jan	Sum of Feb	Sum of Mar	Sum of Total Sales
0	False	False	False	False	False
1	False	False	False	False	False
2	False	False	False	False	False
3	False	False	False	False	False
4	False	False	False	False	False
5	False	False	False	False	False
6	False	False	False	False	False
7	False	False	False	False	False
8	False	False	False	False	False

```
In [16]: x.fillna(value=100)
```

```
Out[16]:
```

	Row Labels	Sum of Jan	Sum of Feb	Sum of Mar	Sum of Total Sales
0	A	5.62%	7.73%	6.16%	75
1	B	4.21%	17.27%	19.21%	160
2	C	9.83%	11.60%	5.17%	101
3	D	2.81%	21.91%	7.88%	127
4	E	25.28%	10.57%	11.82%	179
5	F	8.15%	16.24%	18.47%	167
6	G	18.54%	8.76%	17.49%	171
7	H	25.56%	5.93%	13.79%	170
8	Grand Total	100.00%	100.00%	100.00%	1150

```
In [17]: x.dropna()
```

```
Out[17]:
```

	Row Labels	Sum of Jan	Sum of Feb	Sum of Mar	Sum of Total Sales
0	A	5.62%	7.73%	6.16%	75
1	B	4.21%	17.27%	19.21%	160
2	C	9.83%	11.60%	5.17%	101
3	D	2.81%	21.91%	7.88%	127
4	E	25.28%	10.57%	11.82%	179
5	F	8.15%	16.24%	18.47%	167
6	G	18.54%	8.76%	17.49%	171
7	H	25.56%	5.93%	13.79%	170
8	Grand Total	100.00%	100.00%	100.00%	1150

```
In [19]: x=x[["Sum of Jan","Sum of Total Sales"]]  
x
```

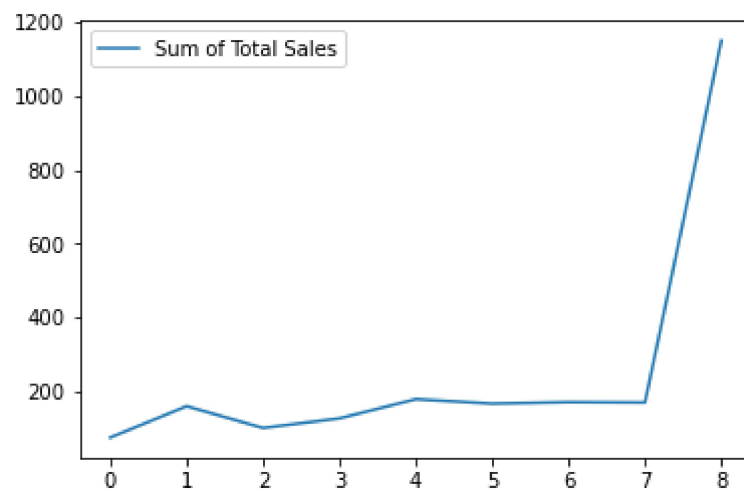
Out[19]:

	Sum of Jan	Sum of Total Sales
0	5.62%	75
1	4.21%	160
2	9.83%	101
3	2.81%	127
4	25.28%	179
5	8.15%	167
6	18.54%	171
7	25.56%	170
8	100.00%	1150

```
In [20]: import matplotlib.pyplot as pp
```

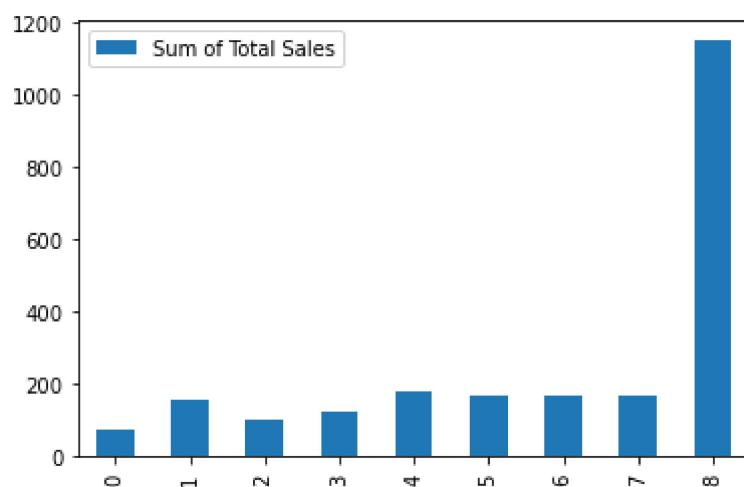
```
In [21]: x.plot.line()
```

Out[21]: <AxesSubplot:>



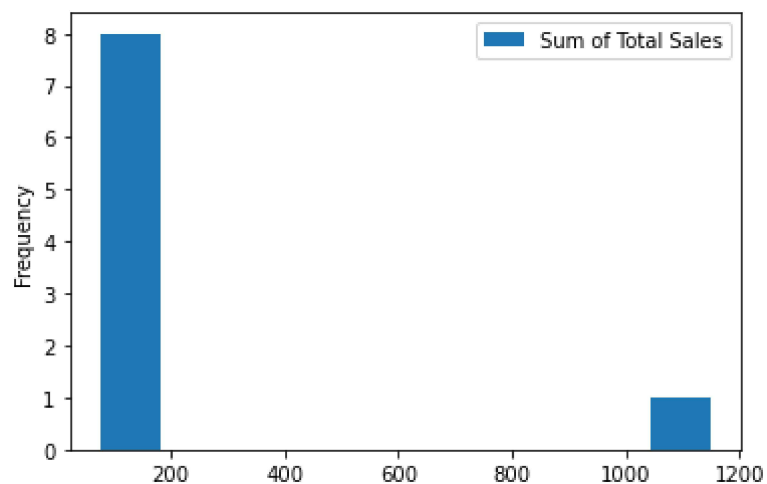
```
In [22]: x.plot.bar()
```

```
Out[22]: <AxesSubplot:>
```



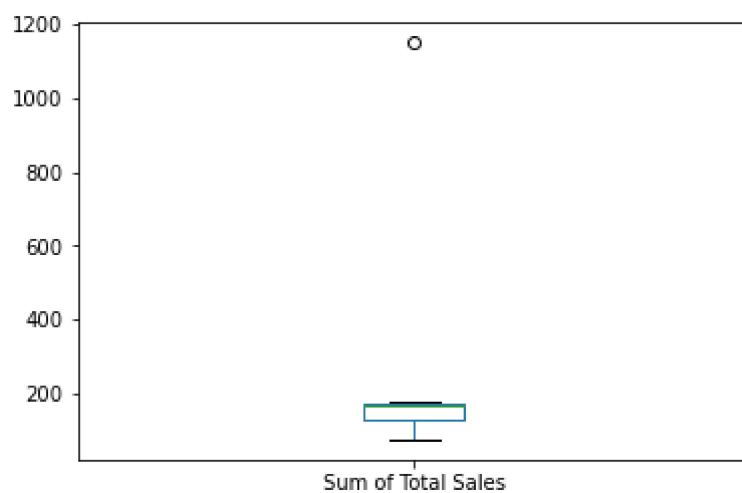
```
In [23]: x.plot.hist()
```

```
Out[23]: <AxesSubplot:ylabel='Frequency'>
```



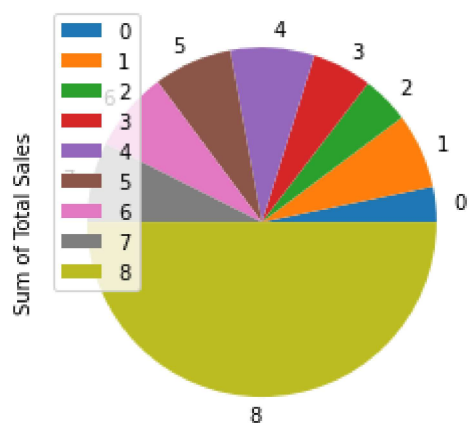
```
In [24]: x.plot.box()
```

```
Out[24]: <AxesSubplot:>
```



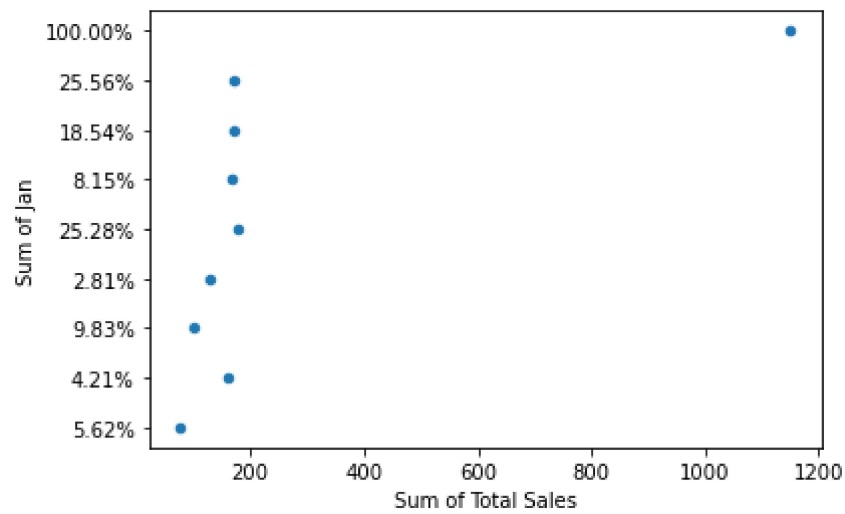
```
In [26]: x.plot.pie(y='Sum of Total Sales')
```

```
Out[26]: <AxesSubplot:ylabel='Sum of Total Sales'>
```



```
In [28]: x.plot.scatter(x='Sum of Total Sales',y='Sum of Jan')
```

```
Out[28]: <AxesSubplot:xlabel='Sum of Total Sales', ylabel='Sum of Jan'>
```



```
In [ ]:
```