```
In [1]: import pandas as pd
        import numpy as np
        import matplotlib.pyplot as plt
```

```
In [2]: data=pd.read_csv(r"C:\Users\user\Desktop\Vicky\5_Instagram data.csv")
```

```
In [3]: data.shape
```

Out[3]: (119, 13)

In [4]: `data.head`

Out[4]: <bound method NDFrame.head of   Impressions   From Home   From Hashtags   Fro
m Explore   From Other   Saves   \

			Impressions	From Home	From Hashtags	Fro
	From Other	Saves				
0	3920	2586	1028	619	56	98
1	5394	2727	1838	1174	78	194
2	4021	2085	1188	0	533	41
3	4528	2700	621	932	73	172
4	2518	1704	255	279	37	96
..	...	...	...	...	...	...
114	13700	5185	3041	5352	77	573
115	5731	1923	1368	2266	65	135
116	4139	1133	1538	1367	33	36
117	32695	11815	3147	17414	170	1095
118	36919	13473	4176	16444	2547	653

	Comments	Shares	Likes	Profile Visits	Follows	\
0	9	5	162	35	2	
1	7	14	224	48	10	
2	11	1	131	62	12	
3	10	7	213	23	8	
4	5	4	123	8	0	
..	...	...	...	...	...	
114	2	38	373	73	80	
115	4	1	148	20	18	
116	0	1	92	34	10	
117	2	75	549	148	214	
118	5	26	443	611	228	

	Caption	\
0	Here are some of the most important data visua...	
1	Here are some of the best data science project...	
2	Learn how to train a machine learning model an...	
3	Here�s how you can write a Python program to d...	
4	Plotting annotations while visualizing your da...	
..	...	
114	Here are some of the best data science certifi...	
115	Clustering is a machine learning technique use...	
116	Clustering music genres is a task of grouping ...	
117	Here are some of the best data science certifi...	
118	175 Python Projects with Source Code solved an...	

	Hashtags
0	#finance�#money�#business�#investing�#investme...
1	#healthcare�#health�#covid�#data�#datascience�...
2	#data�#datascience�#dataanalysis�#dataanalytic...
3	#python�#pythonprogramming�#pythonprojects�#py...
4	#datavisualization�#datascience�#data�#dataana...
..	...
114	#datascience�#datasciencejobs�#datasciencetrai...
115	#machinelearning�#machinelearningalgorithms�#d...
116	#machinelearning�#machinelearningalgorithms�#d...
117	#datascience�#datasciencejobs�#datasciencetrai...
118	#python�#pythonprogramming�#pythonprojects�#py...

[119 rows x 13 columns]>
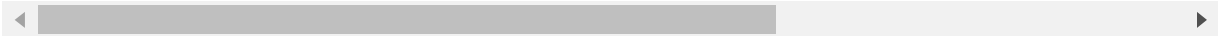
In [5]: `data.tail()`

Out[5]:

	Impressions	From Home	From Hashtags	From Explore	From Other	Saves	Comments	Shares	Likes	Profile Visits	F
114	13700	5185	3041	5352	77	573	2	38	373	73	
115	5731	1923	1368	2266	65	135	4	1	148	20	
116	4139	1133	1538	1367	33	36	0	1	92	34	
117	32695	11815	3147	17414	170	1095	2	75	549	148	
118	36919	13473	4176	16444	2547	653	5	26	443	611	

In [6]: `data.describe()`

Out[6]:

	Impressions	From Home	From Hashtags	From Explore	From Other	Saves	Comn
count	119.000000	119.000000	119.000000	119.000000	119.000000	119.000000	119.00
mean	5703.991597	2475.789916	1887.512605	1078.100840	171.092437	153.310924	6.66
std	4843.780105	1489.386348	1884.361443	2613.026132	289.431031	156.317731	3.54
min	1941.000000	1133.000000	116.000000	0.000000	9.000000	22.000000	0.00
25%	3467.000000	1945.000000	726.000000	157.500000	38.000000	65.000000	4.00
50%	4289.000000	2207.000000	1278.000000	326.000000	74.000000	109.000000	6.00
75%	6138.000000	2602.500000	2363.500000	689.500000	196.000000	169.000000	8.00
max	36919.000000	13473.000000	11817.000000	17414.000000	2547.000000	1095.000000	19.00

In [7]: `data.isna()`

Out[7]:

	Impressions	From Home	From Hashtags	From Explore	From Other	Saves	Comments	Shares	Likes	Profile Visits	F
0	False	False	False	False	False	False	False	False	False	False	
1	False	False	False	False	False	False	False	False	False	False	
2	False	False	False	False	False	False	False	False	False	False	
3	False	False	False	False	False	False	False	False	False	False	
4	False	False	False	False	False	False	False	False	False	False	
...	...	...	...	...	...	...	...	...	...	...	
114	False	False	False	False	False	False	False	False	False	False	
115	False	False	False	False	False	False	False	False	False	False	
116	False	False	False	False	False	False	False	False	False	False	
117	False	False	False	False	False	False	False	False	False	False	
118	False	False	False	False	False	False	False	False	False	False	

119 rows × 13 columns

In [8]: `data.size`

Out[8]: 1547

```
In [9]: data.isna
```

```
Out[9]: <bound method DataFrame.isna of         Impressions  From Home  From Hashtags  F
        rom Explore  From Other  Saves  \
        0           3920       2586          1028        619         56    98
        1           5394       2727          1838       1174         78   194
        2           4021       2085          1188          0        533    41
        3           4528       2700           621        932         73   172
        4           2518       1704           255        279         37    96
        ..           ...        ...           ...        ...        ...   ...
        114        13700       5185          3041       5352         77   573
        115         5731       1923          1368       2266         65   135
        116         4139       1133          1538       1367         33    36
        117        32695      11815          3147      17414        170  1095
        118        36919      13473          4176      16444       2547   653

             Comments  Shares  Likes  Profile Visits  Follows  \
        0           9       5    162              35        2
        1           7      14    224              48       10
        2          11       1    131              62       12
        3          10       7    213              23        8
        4           5       4    123               8        0
        ..        ...     ...    ...             ...      ...
        114         2      38    373              73       80
        115         4       1    148              20       18
        116         0       1     92              34       10
        117         2      75    549             148      214
        118         5      26    443             611      228

                                               Caption  \
        0       Here are some of the most important data visua...
        1       Here are some of the best data science project...
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        3       Here�s how you can write a Python program to d...
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        ..                                                 ...
        114     Here are some of the best data science certifi...
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                                              Hashtags
        0       #finance�#money�#business�#investing�#investme...
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        3       #python�#pythonprogramming�#pythonprojects�#py...
        4       #datavisualization�#datascience�#data�#dataana...
        ..                                                 ...
        114     #datascience�#datasciencejobs�#datasciencetrai...
        115     #machinelearning�#machinelearningalgorithms�#d...
        116     #machinelearning�#machinelearningalgorithms�#d...
        117     #datascience�#datasciencejobs�#datasciencetrai...
        118     #python�#pythonprogramming�#pythonprojects�#py...

        [119 rows x 13 columns]>
```
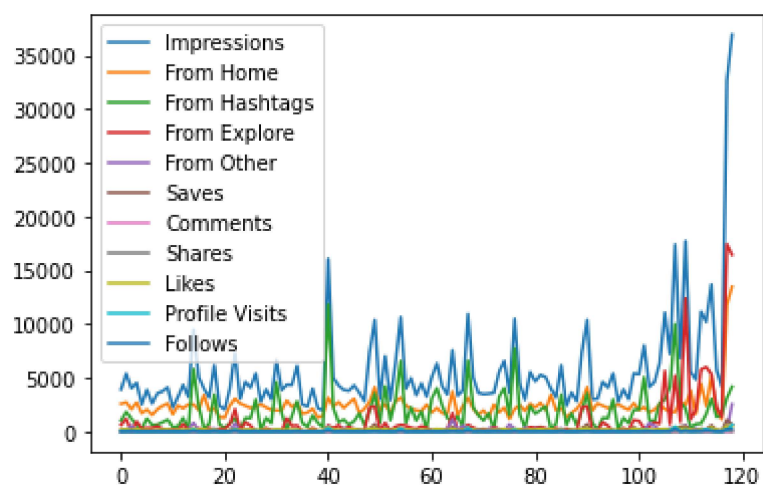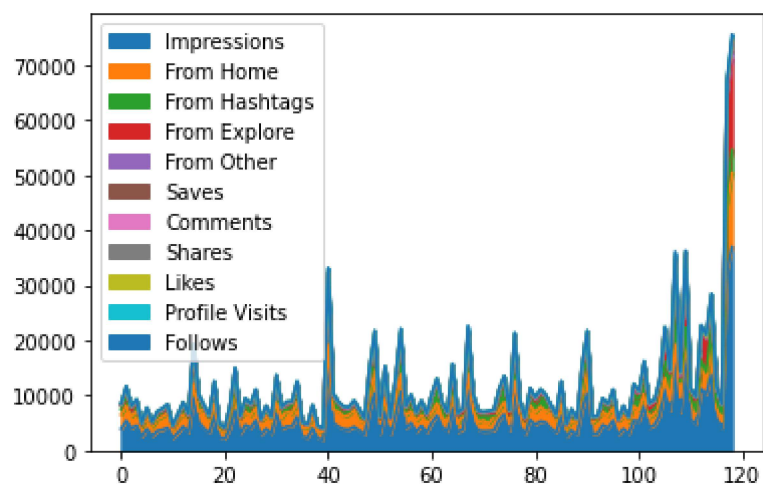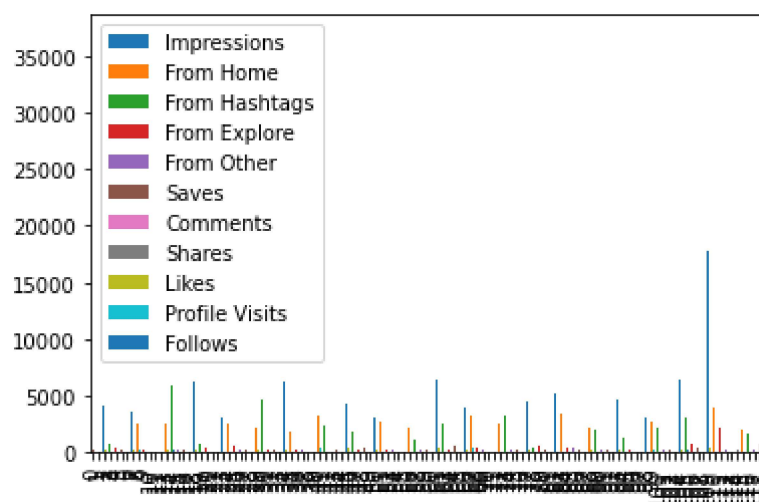
In [10]: `data.plot.line()`

Out[10]: `<AxesSubplot:>`

In [11]: `data.plot.area()`

Out[11]: `<AxesSubplot:>`
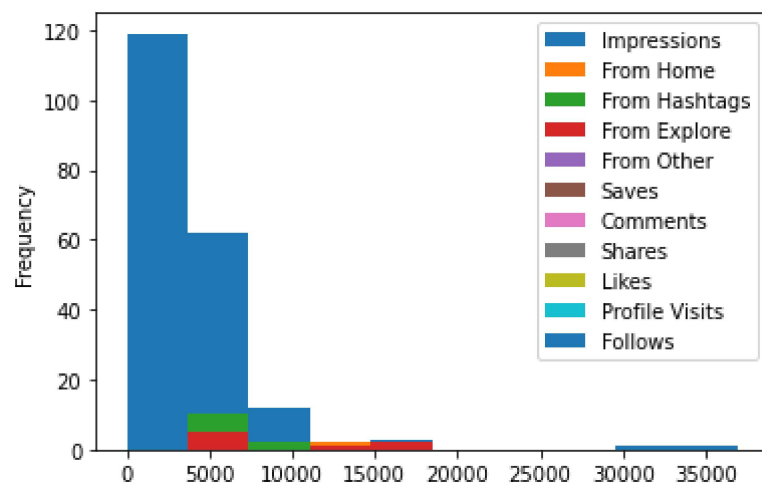
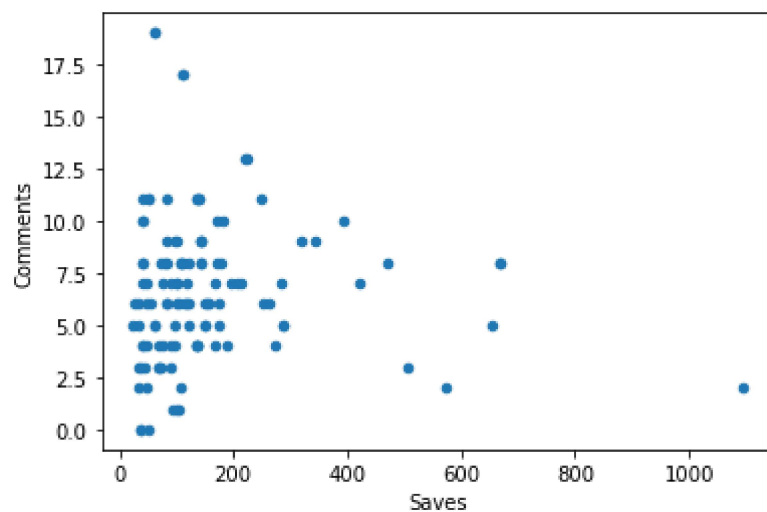In [12]:
```
data.plot.bar()
```

Out[12]: `<AxesSubplot:>`

In [13]:
```
data.plot.hist()
```

Out[13]: `<AxesSubplot:ylabel='Frequency'>`

In [16]: `data.plot.scatter(x="Saves",y='Comments')`
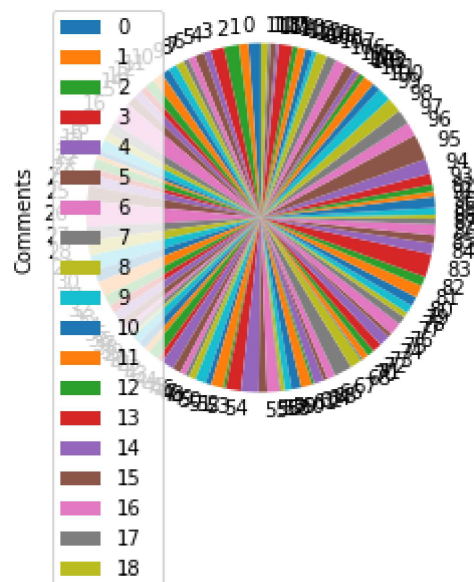
Out[16]: `<AxesSubplot:xlabel='Saves', ylabel='Comments'>`

In [ ]: `data.fillna(value=5)`

In [ ]: `pd.isna(data)`

In [15]: `data.plot.pie(y="Comments",startangle=90)`

Out[15]: `<AxesSubplot:ylabel='Comments'>`

In [ ]: