Kaviyadevi M 20106064 ¶

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

Out[4]:

| +]. | Impressions | From Home | From Hashtags | From Explore | From Other | Saves | Comments | Shares | Likes | Profile Visits | Follow |
|-----|-------------|--------------|------------------|-----------------|---------------|-------|----------|--------|-------|-------------------|--------|
| 0 | 3920 | 2586 | 1028 | 619 | 56 | 98 | 9 | 5 | 162 | 35 | |
| 1 | 5394 | 2727 | 1838 | 1174 | 78 | 194 | 7 | 14 | 224 | 48 | 1 |
| 2 | 4021 | 2085 | 1188 | 0 | 533 | 41 | 11 | 1 | 131 | 62 | 1 |
| 3 | 4528 | 2700 | 621 | 932 | 73 | 172 | 10 | 7 | 213 | 23 | |
| 4 | 2518 | 1704 | 255 | 279 | 37 | 96 | 5 | 4 | 123 | 8 | |
| | | | | | ••• | ••• | | | | | |
| 4 | 13700 | 5185 | 3041 | 5352 | 77 | 573 | 2 | 38 | 373 | 73 | 8 |
| 5 | 5731 | 1923 | 1368 | 2266 | 65 | 135 | 4 | 1 | 148 | 20 | 1 |
| 6 | 4139 | 1133 | 1538 | 1367 | 33 | 36 | 0 | 1 | 92 | 34 | 1 |
| 7 | 32695 | 11815 | 3147 | 17414 | 170 | 1095 | 2 | 75 | 549 | 148 | 21 |

| | Impressions | From Home | From Hashtags | From Explore | From Other | Saves | Comments | Shares | Likes | Profile Visits | Follow |
|---|-------------|--------------|------------------|-----------------|---------------|-------|----------|--------|-------|-------------------|--------|
| 8 | 36919 | 13473 | 4176 | 16444 | 2547 | 653 | 5 | 26 | 443 | 611 | 22 |

9 rows × 13 columns

Data Preprocessing

In [5]: data.head()

Out[5]:

| • | | Impressions | From Home | From Hashtags | From Explore | From Other | Saves | Comments | Shares | Likes | Profile Visits | Follo |
|---|---|-------------|--------------|------------------|-----------------|---------------|-------|----------|--------|-------|-------------------|-------|
| | 0 | 3920 | 2586 | 1028 | 619 | 56 | 98 | 9 | 5 | 162 | 35 | |
| | 1 | 5394 | 2727 | 1838 | 1174 | 78 | 194 | 7 | 14 | 224 | 48 | |
| | 2 | 4021 | 2085 | 1188 | 0 | 533 | 41 | 11 | 1 | 131 | 62 | |
| | 3 | 4528 | 2700 | 621 | 932 | 73 | 172 | 10 | 7 | 213 | 23 | |
| | 4 | 2518 | 1704 | 255 | 279 | 37 | 96 | 5 | 4 | 123 | 8 | |
| | 4 | | | | | | | | | | | • |

In [6]: data.tail()

Out[6]:

| _ | | Impressions | From Home | From Hashtags | From Explore | From Other | Saves | Comments | Shares | Likes | Profile Visits | Fo |
|---|-----|-------------|--------------|------------------|-----------------|---------------|-------|----------|--------|-------|-------------------|----|
| | 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 [7]: data.describe()

Out[7]:

| | Impressions | From Home | From Hashtags | From Explore | From Other | Saves | Commer |
|-------|--------------|--------------|------------------|-----------------|-------------|-------------|----------|
| count | 119.000000 | 119.000000 | 119.000000 | 119.000000 | 119.000000 | 119.000000 | 119.0000 |
| mean | 5703.991597 | 2475.789916 | 1887.512605 | 1078.100840 | 171.092437 | 153.310924 | 6.6638 |
| std | 4843.780105 | 1489.386348 | 1884.361443 | 2613.026132 | 289.431031 | 156.317731 | 3.5445 |
| min | 1941.000000 | 1133.000000 | 116.000000 | 0.000000 | 9.000000 | 22.000000 | 0.0000 |
| 25% | 3467.000000 | 1945.000000 | 726.000000 | 157.500000 | 38.000000 | 65.000000 | 4.0000 |
| 50% | 4289.000000 | 2207.000000 | 1278.000000 | 326.000000 | 74.000000 | 109.000000 | 6.0000 |
| 75% | 6138.000000 | 2602.500000 | 2363.500000 | 689.500000 | 196.000000 | 169.000000 | 8.0000 |
| max | 36919.000000 | 13473.000000 | 11817.000000 | 17414.000000 | 2547.000000 | 1095.000000 | 19.0000 |

In [8]: print(np.shape(data))

(119, 13)

In [9]: print(np.size(data))

1547

In [10]: data.dropna(0)

Out[10]:

| [10]. | Impressions | From Home | From Hashtags | From Explore | From Other | Saves | Comments | Shares | Likes | Profile Visits |
|-------|----------------------------|--------------|------------------|-----------------|---------------|-------|----------|--------|-------|-------------------|
| _ | 0 3920 |) 2586 | 1028 | 619 | 56 | 98 | 9 | 5 | 162 | 35 |
| | 1 5394 | 1 2727 | 1838 | 1174 | 78 | 194 | 7 | 14 | 224 | 48 |
| | 2 402 | 1 2085 | 1188 | 0 | 533 | 41 | 11 | 1 | 131 | 62 |
| | 3 4528 | 3 2700 | 621 | 932 | 73 | 172 | 10 | 7 | 213 | 23 |
| | 4 2518 | 3 1704 | 255 | 279 | 37 | 96 | 5 | 4 | 123 | 8 |
| | | | | | | | | ••• | | |
| 1 | 14 13700 |) 5185 | 3041 | 5352 | 77 | 573 | 2 | 38 | 373 | 73 |
| 1 | 15 573 [.] | 1 1923 | 1368 | 2266 | 65 | 135 | 4 | 1 | 148 | 20 |
| 1 | 16 4139 | 9 1133 | 1538 | 1367 | 33 | 36 | 0 | 1 | 92 | 34 |
| 1 | 17 32699 | 5 11815 | 3147 | 17414 | 170 | 1095 | 2 | 75 | 549 | 148 |

| | Impressions | From Home | From Hashtags | From Explore | From Other | Saves | Comments | Shares | Likes | Profile Visits | _ |
|-----------------------|-------------|--------------|------------------|-----------------|---------------|-------|----------|--------|-------|-------------------|---|
| 118 | 36919 | 13473 | 4176 | 16444 | 2547 | 653 | 5 | 26 | 443 | 611 | |
| 119 rows × 13 columns | | | | | | | | | | | ~ |
| 4 | | | | | | | | | | > | |

Data Visualization

In [11]: data=data[['From Home','From Hashtags']]
 data

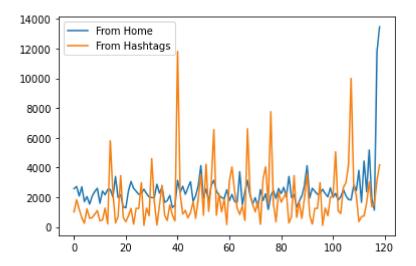
Out[11]:

| | From Home | From Hashtags |
|-----|-----------|---------------|
| 0 | 2586 | 1028 |
| 1 | 2727 | 1838 |
| 2 | 2085 | 1188 |
| 3 | 2700 | 621 |
| 4 | 1704 | 255 |
| | | |
| 114 | 5185 | 3041 |
| 115 | 1923 | 1368 |
| 116 | 1133 | 1538 |
| 117 | 11815 | 3147 |
| 118 | 13473 | 4176 |

119 rows × 2 columns

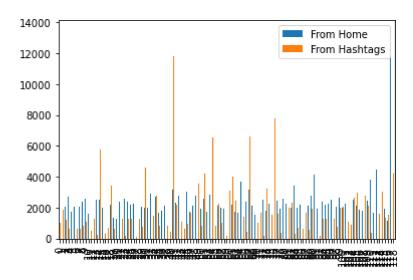
```
In [12]: data.plot.line()
```

Out[12]: <AxesSubplot:>



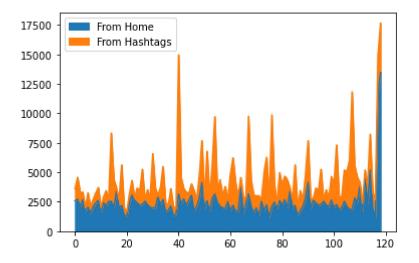
In [13]: data.plot.bar()

Out[13]: <AxesSubplot:>



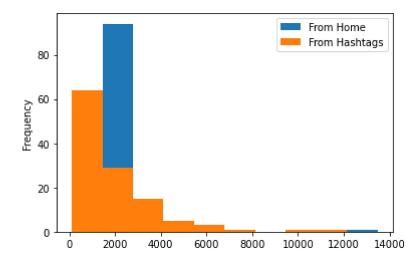
```
In [14]: data.plot.area()
```

Out[14]: <AxesSubplot:>



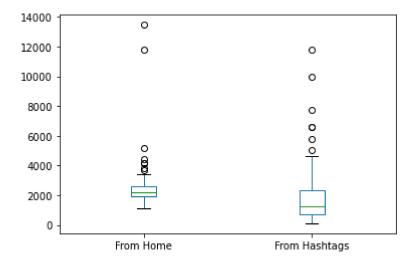
In [15]: data.plot.hist()

Out[15]: <AxesSubplot:ylabel='Frequency'>



```
In [16]: data.plot.box()
```

Out[16]: <AxesSubplot:>



In [17]: data.plot.scatter(x="From Home",y="From Hashtags")

Out[17]: <AxesSubplot:xlabel='From Home', ylabel='From Hashtags'>

