FB: Data Preview (csvstat, csvcut, head, cat)

WE'LL COVER THE FOLLOWING

Now that the Facebook has more than a billion of active users, it really has become a personal, product and corporate branding hub. Companies would like to understand what people think about topics related to their business, so they can make their products and marketing more relevant to their customers. One way to achieve such goal is to analyse company's FB pages which can make marketing content more relevant for marketers.

In this lesson, we're going to mine a dataset generated by using a Facebook scraper on a particular Facebook page (undisclosed). The goal of this experiment is to find the most vibrant status message on that page, with just one Bash command.

Video Lecture: Facebook data preview

Data download

You should download the data from the here- Educative's webpage, as we have slightly simplified the data and Let's save the data as: `facebookdata.csv`. Soon we will see that the dataset contains the following attributes: `status_id`, `status_message`, `link_name`, `status_type`, `status_link`, `status_published`, `num_reactions`, `num_comments`, `num_shares`, `num_likes`, `num_loves` `num_wows`, `num_hahas` `num_sads`, `num_angrys`. From this data, using Bash we will explore different features and finally find which message was the most vibrant in terms of total number of activities.

Learning objectives

By completing this, you will learn to use the following Bash commands:

- `head` – output the first part of files
- `tail` – opposite to head
- `cat` – concatenate and print files
- `sort` – sort file contents

- `grep` – search the input files for lines containing a match to a given pattern list
- `uniq` – remove duplicate entries
- `awk` – programming language (New!)
- Bash `functions` (New!)

Dataset Preview

Same as before, this dataset is also small (toy) and we could in principle open it in a text editor or in Excel. However, as mentioned in the first chapter, real-world datasets are often larger and cumbersome to open in their entirety. Instead, let's get a sneak peak of the data.

How many colums and rows?

First, let us, find some stat about the data using `csvstat` tool from the `csvkit`:

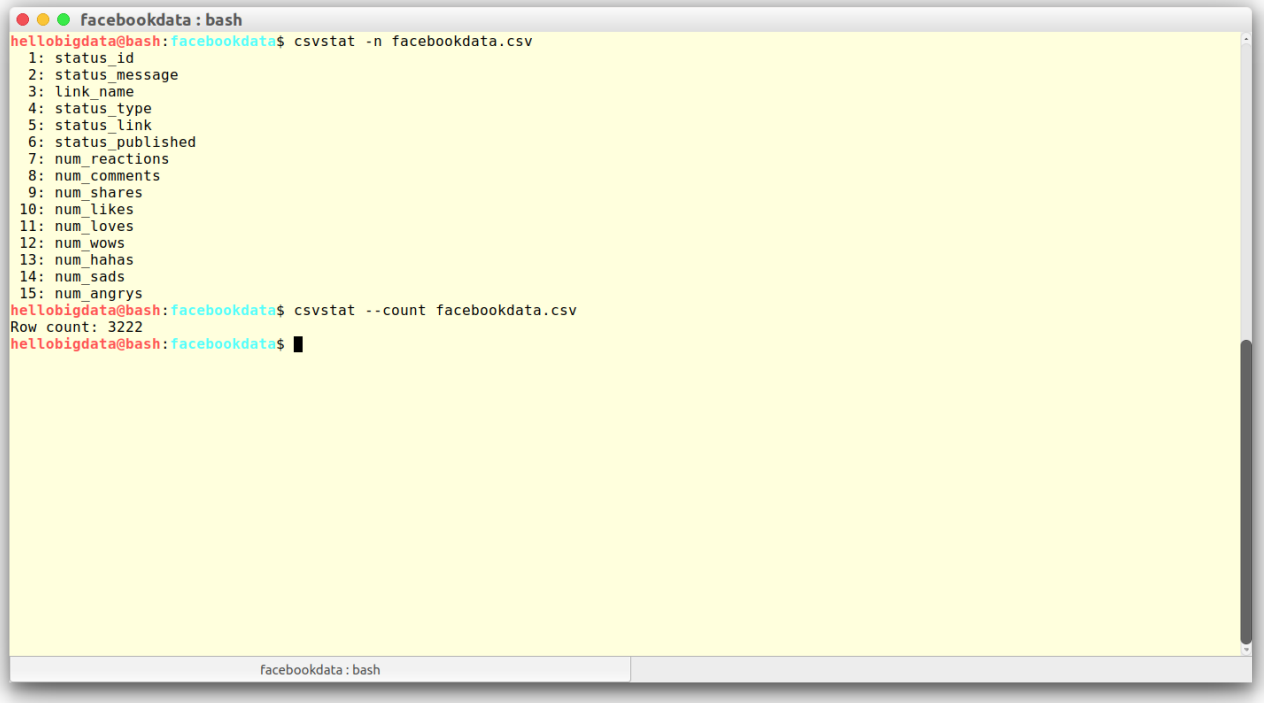
Finding the stat of the columns:

```
csvstat -n facebookdata.csv
```

Finding the `stat` of the rows:

```
csvstat --count facebookdata.csv
```

Final output:



facebookdata.csv stats using csvstat

It looks like that the dataset has a total of `11` columns and `3222` rows.

How the data looks like?

This is often the first thing to do when you get your hands on new data; previewing it is important to get a sense for what it contains, how it is organized, and whether the data makes sense in the first place. To help us get a preview of the data, we can use the command `head`, `csvlook` and `csvcut`:

```
csvcut -c 1,4,7-11 facebookdata.csv | csvlook | head -n 50
```

```
facebookdata : bash
hellobigdata@bash:facebookdata$ csvcut -c 1,4,7-11 facebookdata.csv | csvlook | head -n 50
| status_id                    | status_type | num_reactions | num_comments | num_shares | num_likes | num_loves |
| ---------------------------- | ----------- | ------------- | ------------ | ---------- | --------- | --------- |
| 7331091005_10154123560186006 | video       |         5,565 |          178 |        461 |     5,488 |        43 |
| 7331091005_10154123362896006 | video       |        11,997 |        1,932 |      3,158 |    10,385 |        96 |
| 7331091005_10154123319126006 | link        |         2,063 |          270 |        400 |     1,971 |        28 |
| 7331091005_10154123234521006 | photo       |       116,543 |       11,811 |     43,923 |   107,561 |     1,202 |
| 7331091005_10154123219076006 | link        |        10,475 |          999 |      2,978 |     8,833 |        28 |
| 7331091005_10154123189346006 | photo       |        32,111 |          897 |      2,525 |    29,660 |       398 |
| 7331091005_10154123132896006 | video       |         1,261 |          628 |         90 |     1,173 |        43 |
| 7331091005_10154123136121006 | video       |         9,257 |          283 |        819 |     8,776 |       348 |
| 7331091005_10154123102181006 | photo       |        13,314 |          147 |        917 |    12,771 |       433 |
| 7331091005_10154123021136006 | video       |        43,325 |        4,447 |     35,534 |    41,914 |       621 |
| 7331091005_10154122959911006 | link        |           449 |           19 |         33 |       441 |         3 |
| 7331091005_10154122914261006 | video       |         3,717 |           38 |        355 |     3,580 |        97 |
| 7331091005_10154122756301006 | video       |           131 |           11 |         10 |       126 |         4 |
| 7331091005_10154122866096006 | video       |         3,985 |          149 |        366 |     3,786 |        82 |
| 7331091005_10154122823271006 | link        |         4,468 |        1,026 |      1,632 |     4,190 |        20 |
| 7331091005_10154122765336006 | photo       |        25,707 |          739 |      2,413 |    24,667 |       774 |
| 7331091005_10154122722061006 | photo       |        48,708 |        1,326 |      3,840 |    43,658 |       503 |
| 7331091005_10154122686201006 | link        |         2,655 |           89 |        100 |     2,596 |        14 |
| 7331091005_10154122655576006 | video       |         8,894 |          395 |        811 |     7,685 |        99 |
| 7331091005_10154122459461006 | link        |         3,702 |          222 |        578 |     3,610 |        23 |
| 7331091005_10154122428786006 | link        |         4,955 |          139 |        184 |     4,345 |        36 |
| 7331091005_10154121679506006 | link        |        14,426 |        1,474 |      1,204 |    13,797 |       162 |
| 7331091005_10154121610466006 | photo       |         3,719 |          156 |        202 |     3,323 |        31 |
| 7331091005_10154121541501006 | photo       |         6,940 |           65 |        285 |     6,739 |       141 |
| 7331091005_10154121541286006 | link        |        12,719 |          338 |        897 |    12,035 |       258 |
| 7331091005_10154121438506006 | link        |         4,520 |          346 |        517 |     4,138 |        42 |
facebookdata : bash
```

FB data preview

The `csvcut` command can help us to cut a given set of columns (e.g., `1,4,7-11`). Note that we have not previewed the column numbers `2` and `3` (`status_message`, `link_name`), which are wider columns and wouldn't fit properly into our preview-screen above!

Do you want to know more?

'csvcut' man page