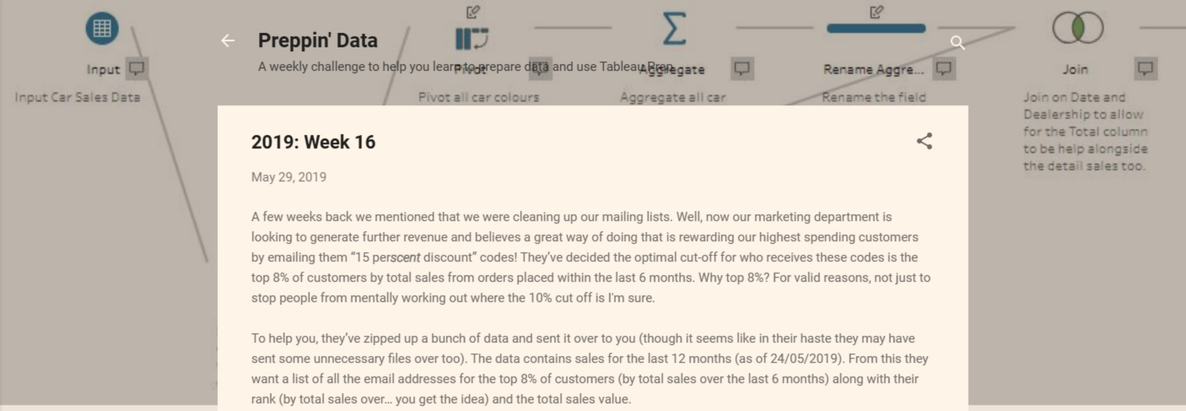
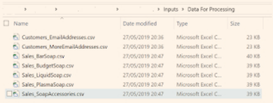


2019: Week 16

May 29, 2019

A few weeks back we mentioned that we were cleaning up our mailing lists. Well, now our marketing department is looking to generate further revenue and believes a great way of doing that is rewarding our highest spending customers by emailing them "15 per*scent* discount" codes! They've decided the optimal cut-off for who receives these codes is the top 8% of customers by total sales from orders placed within the last 6 months. Why top 8%? For valid reasons, not just to stop people from mentally working out where the 10% cut off is I'm sure.

To help you, they've zipped up a bunch of data and sent it over to you (though it seems like in their haste they may have sent some unnecessary files over too). The data contains sales for the last 12 months (as of 24/05/2019). From this they want a list of all the email addresses for the top 8% of customers (by total sales over the last 6 months) along with their rank (by total sales over... you get the idea) and the total sales value.



The files they've provided us. We only wanted the Sales data.

REQUIREMENTS

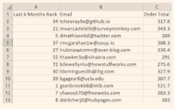
- Download the "Data for Processing" folder containing all the input files.
- Find a way to import & combine all the data from the file without deleting the non-sales data that was accidentally sent to you (they might need it back, they don't seem very tech-savvy). The rest of the detail in the file names isn't important.
- Find a way to rank the customers by total sales across orders placed within the last 6 months.
  - **NB:** *For this challenge, calculate "last 6 months" from 24/05/2019, not today's date.*
- Find a way to filter these down to customers in the top 8%.
- Produce a neatly formatted output matching the structure shown and described below.

The data structure of one of the input files.

Further hints can be found at the end of this post if you get stuck.

OUTPUT

- One output file.
- 3 columns: [Last 6 Months Rank], [Email], [Order Total].
- The number of rows is a potential spoiler so it is contained in the HINTS section..



The data structure of the output.

You can find our full output file here for comparison.

Don't to forget to fill in our participation tracker!

——————— *SPOILERS BELOW* ———————

HINTS

These hints go in order of when they come in handy during our solution:

1. You don't need to import all the "Sales_" files one-by-one.
2. Filtering with a date calculation could come in handy to reduce the date range.
3. You can join two consecutive clean steps to each other even if you don't do anything in one or both steps. Perhaps this, along with the correct join condition, could help figure out who has been generating the most sales?
4. You don't need to do mental math to figure out which ranks are in the top 8% if you aggregate to count how many email addresses there are in total and multiply by 0.08.
5. There should be 72 rows in your final output (not including headers).

Aggregation Join ranking top n percent week16

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