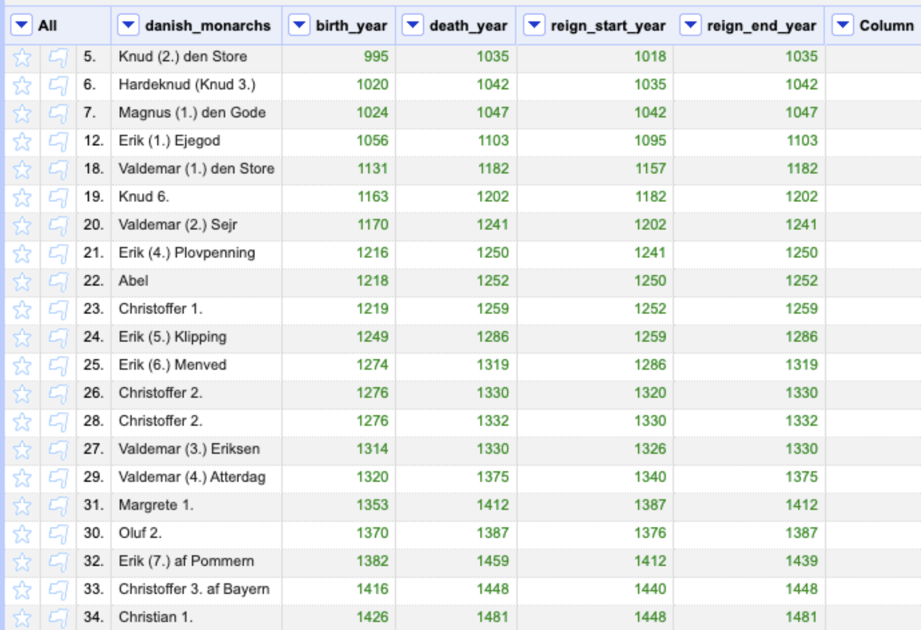
2:W35: Open Refine

Task 1

I have to create a spreadsheet listing the names of the Danish monarchs with their birth- and death-date and start and end year of reign. I use the data from danmarkshistorien.dk and kongehuset.dk and put it into an excel spreadsheet (see the attached excel spreadsheet). I named the columns danish_monarchs, birth_date, death_date, reign_start_year and reign_end_year to sort the data. The birth date of many of the ancient kings were unknown, and I used the name NULL to mark the missing data. The fact that the year of birth has its own column makes the data sortable by year of birth. If the spreadsheet data it pulled into OpenRefine, the monarchs can be sorted by year of birth by clicking on the dropdown menu at the column named birth_year and choosing “sort”, “numbers” and “smallest first”.



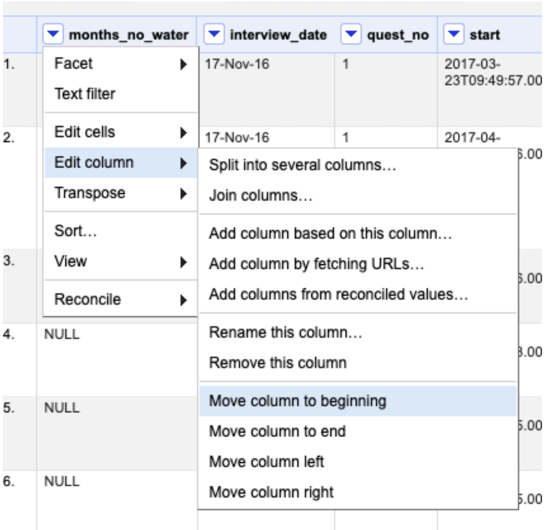
All	danish_monarchs	birth_year	death_year	reign_start_year	reign_end_year	Column
☆ ⚐ 5.	Knud (2.) den Store	995	1035	1018	1035	
☆ ⚐ 6.	Hardeknud (Knud 3.)	1020	1042	1035	1042	
☆ ⚐ 7.	Magnus (1.) den Gode	1024	1047	1042	1047	
☆ ⚐ 12.	Erik (1.) Ejegod	1056	1103	1095	1103	
☆ ⚐ 18.	Valdemar (1.) den Store	1131	1182	1157	1182	
☆ ⚐ 19.	Knud 6.	1163	1202	1182	1202	
☆ ⚐ 20.	Valdemar (2.) Sejr	1170	1241	1202	1241	
☆ ⚐ 21.	Erik (4.) Plovpenning	1216	1250	1241	1250	
☆ ⚐ 22.	Abel	1218	1252	1250	1252	
☆ ⚐ 23.	Christoffer 1.	1219	1259	1252	1259	
☆ ⚐ 24.	Erik (5.) Klipping	1249	1286	1259	1286	
☆ ⚐ 25.	Erik (6.) Menved	1274	1319	1286	1319	
☆ ⚐ 26.	Christoffer 2.	1276	1330	1320	1330	
☆ ⚐ 28.	Christoffer 2.	1276	1332	1330	1332	
☆ ⚐ 27.	Valdemar (3.) Eriksen	1314	1330	1326	1330	
☆ ⚐ 29.	Valdemar (4.) Atterdag	1320	1375	1340	1375	
☆ ⚐ 31.	Margrete 1.	1353	1412	1387	1412	
☆ ⚐ 30.	Oluf 2.	1370	1387	1376	1387	
☆ ⚐ 32.	Erik (7.) af Pommern	1382	1459	1412	1439	
☆ ⚐ 33.	Christoffer 3. af Bayern	1416	1448	1440	1448	
☆ ⚐ 34.	Christian 1.	1426	1481	1448	1481	

Task 2

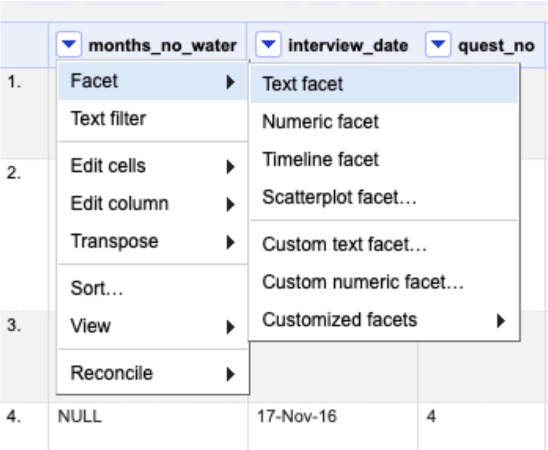
OpenRefine doesn’t alter the raw data during sorting and filtering. The raw data is always to be found in the table, while the clustering, faceting, and editing of the data is to be seen in the small windows in the left side of the screen. Furthermore, it is always possible to go back to earlier versions of the dataset using the undo/redo function in the upper left corner of the window.

Task 3

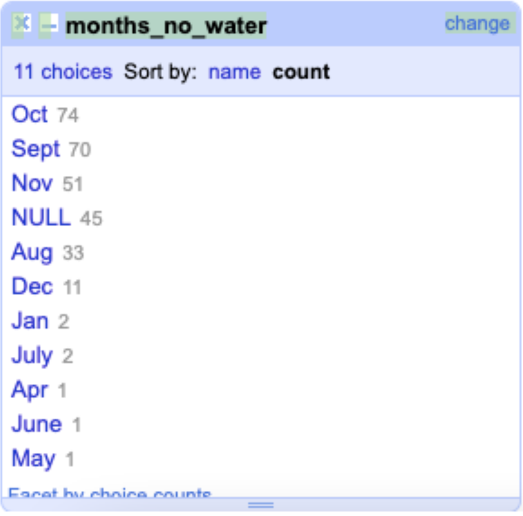
In this task, I will answer the following question: "Which two months are reported as the most water-deprived/driest by the interviewed farmer households?"
Firstly, I pull the attached dataset into a new OpenRefine project. To make it easier for myself, I find the column called months_no_water, click on the dropdown menu, and choose “edit column” and “move column to beginning” to move it to the beginning of the table.



Then I make a text facet by clicking on the dropdown menu and clicking on “facet” and then on “text facet”



In the left side of my window, I now see a box with all the objects from the column listed. As it is now clear, some of the interviewed households have reported several months to be the driest. To find the two driest months, I must make OpenRefine recognize the months separately. Therefore, I need to remove the single quotation marks, the square brackets, and the spaces, and I must make OpenRefine seperate the observations by the semicolons. In the dropdown menu I choose “facet” and “costume text facet” and a small new window pops open. In this windown I type the expression value.replace("[", "").replace("]", "").replace(" ", "").replace("'", "").split(“;”). The value.replace command replaces the sign in the first set of double quotation marks with the sign in the second set of double quotation marks. To remove the signs, I don't write anything in the second set of quotation marks in each replace command. The command value.split splits the observations by the sign, which you write in the double quotation marks. Now a text facet pops up under the old one, but in this facet the months are listed separately. I click on "count" to list them by frequency:



months_no_water

11 choices

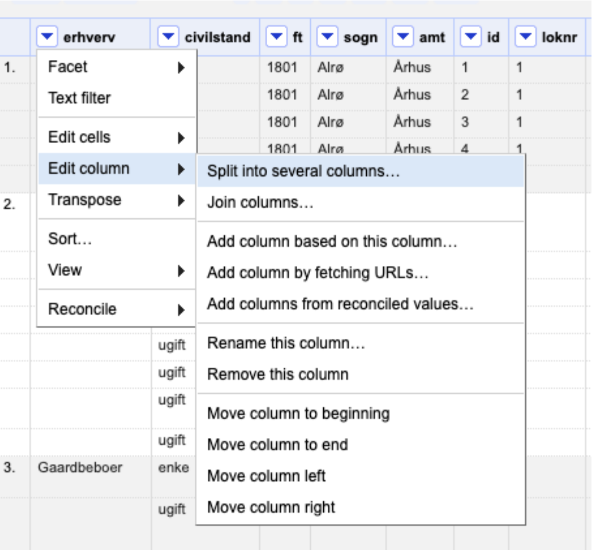
Oct 74
Sept 70
Nov 51
NULL 45
Aug 33
Dec 11
Jan 2
July 2
Apr 1
June 1
May 1

From this facet it becomes clear, that October and September are the two months, which are reported the most water-deprived or driest by the interviewed farmer households.

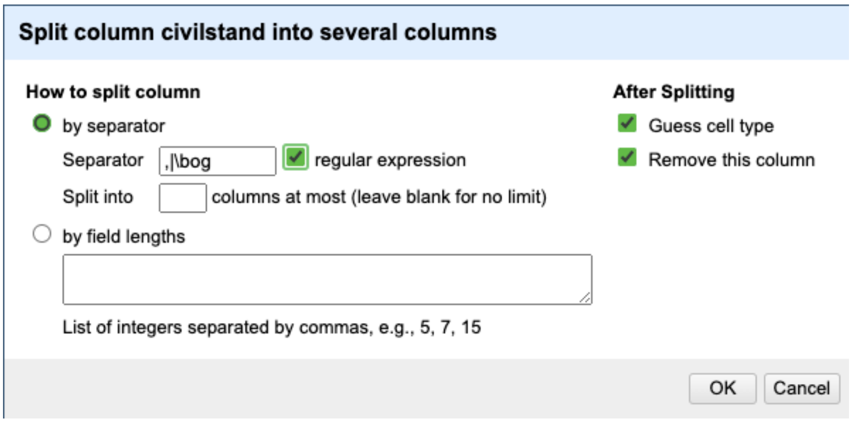
Task 4

The task question is as follows: "What are the 10 most frequent occupations (erhverv) among unmarried men and women in 1801 Aarhus?" To answer this question, I pull the data from the attached csv file into OpenRefine and move the columns "erhverv" (occupation) and "civilstand" (marital status) to the beginning of the table.

Some of the rows in the "occupation" column have several occupations in one cell, and I am interested in splitting the column into several columns. I assume, that the first mentioned occupation is the main occupation, and I therefore ignore the secondary occupations in my analysis. I want to split the occupations written in the same cell by the "og" and the commas. I click on the dropdown menu and choose "edit column" and "split into several columns…".



Now a new window pops open and in it I type the regular expression `,|\bog` to move the occupations which comes after a comma or after "og" to their own separate columns.


Split column civilstand into several columns

How to split column

● by separator

Separator ,|\bog ☑ regular expression

Split into □ columns at most (leave blank for no limit)

○ by field lengths

List of integers separated by commas, e.g., 5, 7, 15

After Splitting

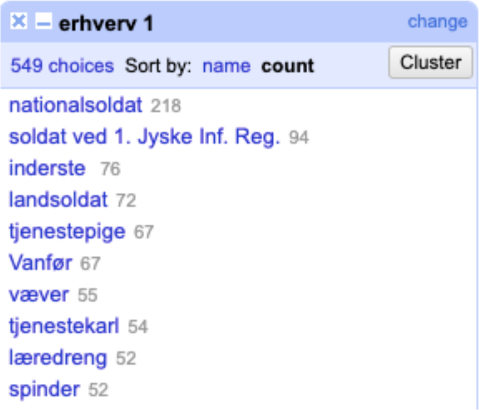
☑ Guess cell type

☑ Remove this column

Now I have five occupation collumns called "erhverv 1", "erhverv 2", "erhverv 3", "erhverv 4" og "erhverv 5". Only the "erhverv 1" column is relevant for the task.

I make the "erhverv 1" column into a text facet and use the cluster function to make sure that miss-spellings or difference in spelling is gathered under the same names. Some of the last clustering I did manually by scrolling through the text facet and editing the misspellings and different spellings of the same occupation.

To only see the occupation of the unmarried, I make a textfilter on the "civilstand" column in which I type "ugift". Now the text facet from the column "erhverv 1" only lists the occupations belonging to unmarried persons. The ten most frequent occupations are (ordered after frequency) national soldier, soldier by the 1st Jutland infantry regiment, lives for rent on a farm (inderste), country soldier, female servant, invalid, weaver, male servant, apprentice, and spinner.



erhverv 1

549 choices Sort by: name **count**

nationalsoldat	218
soldat ved 1. Jyske Inf. Reg.	94
inderste	76
landsoldat	72
tjenestepige	67
Vanfør	67
væver	55
tjenestekarl	54
læredreng	52
spinder	52