

1. What regular expressions do you use to extract all the dates in this blurb: <http://bit.ly/regexexercise2> and to put them into the following format YYYY-MM-DD ?

1: First I would use the regular expression `\d{1,2} \d{1,2} +?\d{4}`

2: After I would use the substitution tool by isolating the months, days, and years in ().

And then putting the year first with the \$-function like I did in the picture:

The screenshot shows a web-based regular expression tool interface. It is divided into three main sections: REGULAR EXPRESSION, TEST STRING, and SUBSTITUTION.

- REGULAR EXPRESSION:** The top section shows the regex `/(\d{1,2}).(\d{1,2})..?(\d{4})` with a status bar indicating "6 matches (86 steps, 0.4ms)".
- TEST STRING:** The middle section contains a text blurb about early American history. The dates are highlighted with colored boxes: "3.27, 1513", "4.17.1524", "8/15/1590", "5/14, 1607", "11.11.1614", and "3-4-1629".
- SUBSTITUTION:** The bottom section shows the substitution pattern `$3-$1-$2` with a status bar indicating "success (1.1ms)". Below this, the same text blurb is shown with the dates reformatted into YYYY-MM-DD format: "1513-3-27", "1524-4-17", "1590-8-15", "1607-5-14", "1614-11-11", and "3-4-1629".

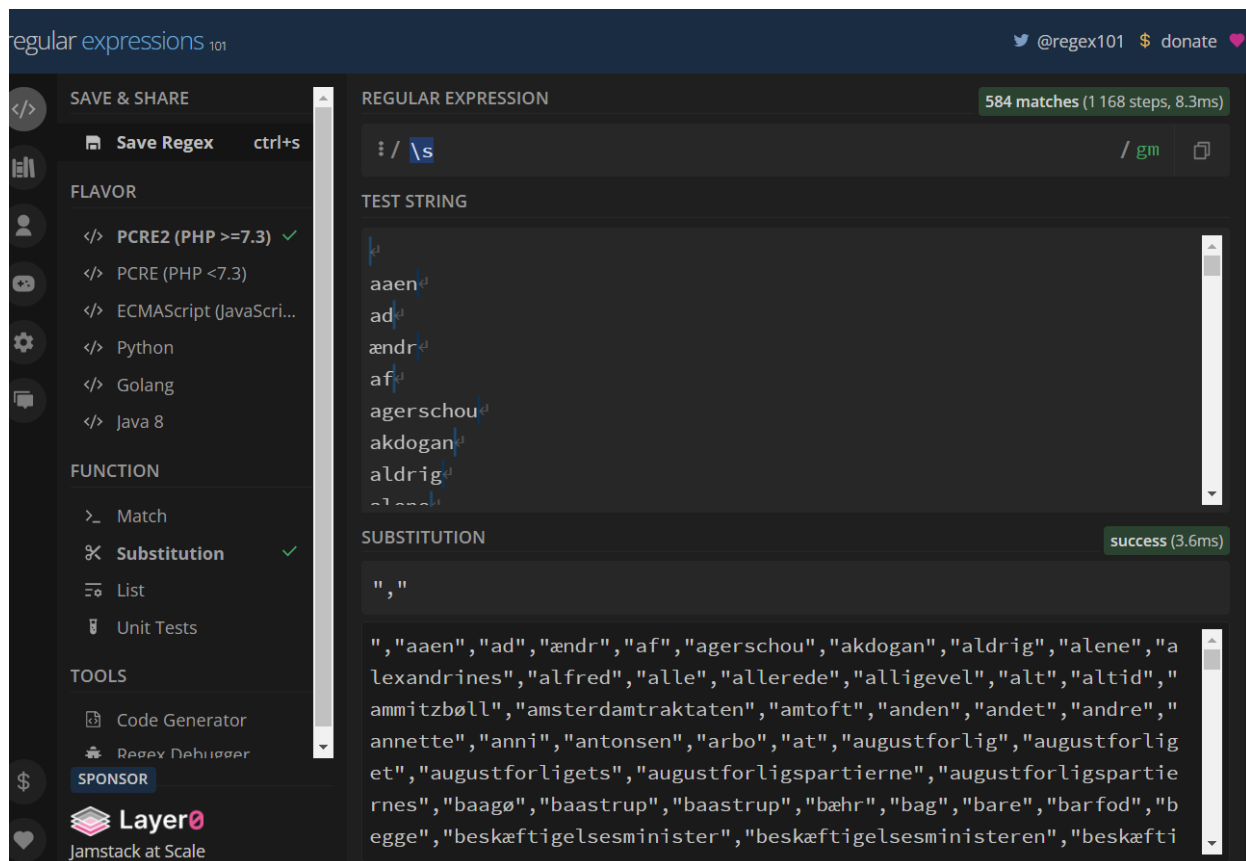
2. Write a regular expression to convert the stopwordslist (list of most frequent Danish words) from Voyant in <http://bit.ly/regexexercise3> into a neat stopwords list for R (which comprises "words" separated by commas, such as <http://bit.ly/regexexercise4>). Then take the stopwordslist from R <http://bit.ly/regexexercise4> and convert it into a Voyant list (words on separate line without interpunction)

2.1 From Voyant to R

1: Used the regular expression `\s`

2: Used the substitution function and put a `","` in it

Like in the photo down below:

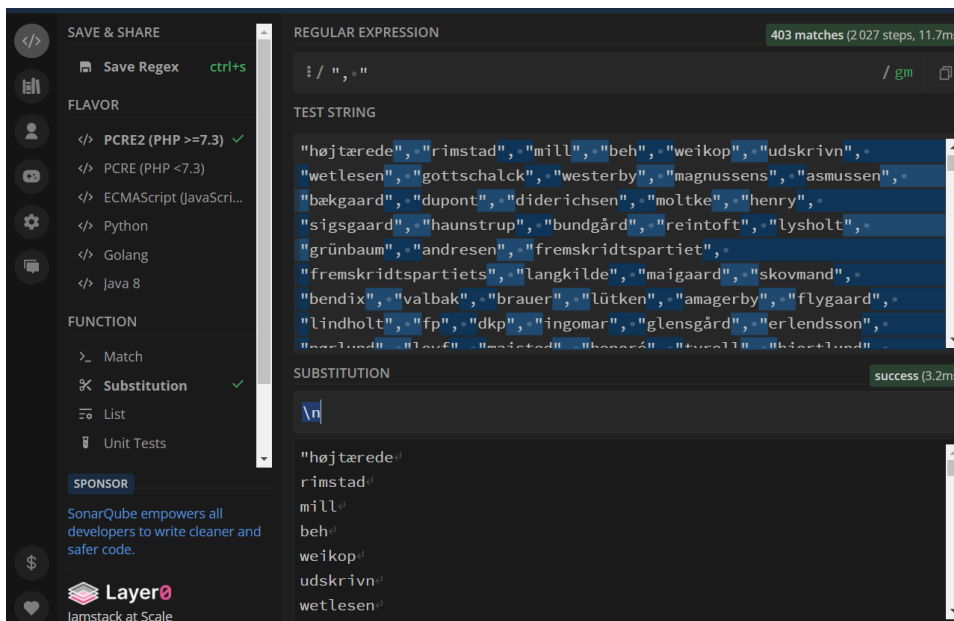


2.2: From R to voyant

First I wrote the regular expression `" , "` to isolate the `" , "` that I didn't want

Then I use the command `\n` to make the new line

Like in the photo below:



3. In 250 words, answer the following question: "What are the basic principles for using spreadsheets for good data organisation?"

In the text "Data Organization in Spreadsheets" by Karl W. Broman & Kara H. Woo, can we see some good rules to remember when using spreadsheet. These rules help us stay organized and active when working in spreadsheets. I will here list the rules here:

- 1: Be Consistent - Entering and organizing your data in a consistent way from the start will prevent you and your collaborators from having to spend time harmonizing the data later.
- 2: Choose Good Names for Things - do not use spaces, either in variable names or file names and avoid special characters, keep it short, but meaningful
- 3: Put Just One Thing in a Cell - The cells in your spreadsheet should each contain one piece of data. Do not put more than one thing in a cell.

4: Make it a Rectangle - The best layout for data within a spreadsheet is as a single big rectangle with rows corresponding to subjects and columns corresponding to variables. The first row should contain variable names, and do not use more than one row for the variable names

5: Create a Data Dictionary - It is helpful to have a separate file that explains what all the variables are. It is helpful if this is laid out in rectangular form, so that the data analyst can make use of it in analyses.

6: No Calculations in the Raw Data Files - primary data file should contain just the data and nothing else: no calculations, no graphs.

7: make backups and save the data in plain text files