**Relevant articles**

Python read() function returns empty string [closed]

<https://stackoverflow.com/questions/16374425/python-read-function-returns-empty-string>

Python Regular Expressions Tutorial and Examples: A Simplified Guide

<https://www.machinelearningplus.com/python/python-regex-tutorial-examples/>

Python Regex: re.match(), re.search(), re.findall() with Example

<https://www.guru99.com/python-regular-expressions-complete-tutorial.html>

Python Regular Expressions

<https://developers.google.com/edu/python/regular-expressions>

Replace strings in Python (replace, translate, re.sub, re.subn)

<https://note.nkmk.me/en/python-str-replace-translate-re-sub/>

regex search and replace example scripts (2013)

<https://pythontesting.net/python/regex-search-replace-examples/>

Chapter 6 – Manipulating Strings

<https://automatetheboringstuff.com/chapter6/>

Using Regex for Text Manipulation in Python

<https://stackabuse.com/using-regex-for-text-manipulation-in-python/>

Regular Expression HOWTO¶ (v3.8)

<https://docs.python.org/3/howto/regex.html>

Pandas group-by and sum

<https://stackoverflow.com/questions/39922986/pandas-group-by-and-sum>

Converting a Pandas GroupBy output from Series to DataFrame

<https://stackoverflow.com/questions/10373660/converting-a-pandas-groupby-output-from-series-to-dataframe>

pandas python how to count the number of records or rows in a dataframe

<https://stackoverflow.com/questions/17468878/pandas-python-how-to-count-the-number-of-records-or-rows-in-a-dataframe>

Counting duplicate values in Pandas DataFrame

<https://stackoverflow.com/questions/33993592/counting-duplicate-values-in-pandas-dataframe>

Python | Combine two dictionary adding values for common keys

<https://www.geeksforgeeks.org/python-combine-two-dictionary-adding-values-for-common-keys/>

python pandas dataframe to dictionary

<https://stackoverflow.com/questions/18695605/python-pandas-dataframe-to-dictionary>

regex search and replace example scripts

<https://pythontesting.net/python/regex-search-replace-examples/>

Python: Get unique values from a list

<https://www.w3resource.com/python-exercises/list/python-data-type-list-exercise-29.php>

Unique values within Pandas group of groups

<https://stackoverflow.com/questions/41880388/unique-values-within-pandas-group-of-groups>

Python : How to convert a list to dictionary ?

<https://thispointer.com/python-how-to-convert-a-list-to-dictionary/>

Python: Removing spaces from list objects [duplicate]

<https://stackoverflow.com/questions/3232953/python-removing-spaces-from-list-objects>

Python dictionary increment

<https://stackoverflow.com/questions/12992165/python-dictionary-increment>

Increment value of integer in Python dictionary

<https://stackoverflow.com/questions/38027965/increment-value-of-integer-in-python-dictionary>

Remove non-numeric rows in one column with pandas

[https://stackoverflow.com/questions/33961028/remove-non-numeric-rows-in-one-column-with-pan](https://stackoverflow.com/questions/33961028/remove-non-numeric-rows-in-one-column-with-pandas)

[das](https://stackoverflow.com/questions/33961028/remove-non-numeric-rows-in-one-column-with-pandas)

How to convert datatype:object to float64 in python?

<https://stackoverflow.com/questions/28277137/how-to-convert-datatypeobject-to-float64-in-python>

Iterate over a dictionary in Python

<https://www.geeksforgeeks.org/iterate-over-a-dictionary-in-python/>

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