

Tasks

1. You are given a string Q. The string contains only lowercase characters. Your task is to print all possible substrings of size q made of the string letters in alphabetical sorted order. Print the substrings on separate lines. Input is a single line containing the space separated string Q and the integer value q.

input: badc 2

output:

ab

ac

ad

ba

bc

bd

ca

cb

cd

da

db

dc

2. There is a list of N items together with their prices. Print each item name and net price in order of its first occurrence.

Input:

The number of items, N

The next N lines contains the item's name and price, separated by a space

Example input:

```
9
BANANA FRIES 12
POTATO CHIPS 30
APPLE JUICE 10
CANDY 5
APPLE JUICE 10
CANDY 5
CANDY 5
CANDY 5
POTATO CHIPS 30
```

Example output:

```
BANANA FRIES 12
POTATO CHIPS 60
APPLE JUICE 20
CANDY 20
```

3. Scrape Youtube trending videos (url: <https://www.youtube.com/feed/trending>) , you must get output in csv and json files which will contain:
Title, url of video, username of uploader, Duration, Views. Be sure to get cleaned data.
4. Develop a crawler for Staff.am and get job titles and company names from all postings. Once done, you should calculate and plot top 5 most frequent words in job postings and company names (separately) top

understand the most active companies on the website and the most demanded positions. You are encouraged to clean the text data if you see that the most frequent words are not informative (i.e. if Armenia is the most frequent word in company names, probably one should remove Armenia from strings)

5. Scrape all movie titles from

<https://www.rogerebert.com/reviews>

6. Create a utils.py file which will have the following classes/functions defined:

- Scrape_All class, which will scrape from a given page all:

a. hyperlinks (<a>) and provide the absolute link if relative one is given in the page,

b. headings and paragraphs and merge them inside one string with a new line between different headings/paragraphs, without distorting order).

c. custom tags provided by the user (i.e. if the user provides li.author or similar input then all the list items that have class author must be scraped.

- Super_list class, which will take a list as input and provide the following functionalities:

a. untilst function, that will return the unlisted version of a nested list or the same one if

list was not nested,

b. merge function, that will merge all the elements of any list into strings,

c. find function that will take a type argument as an input. If type =: i. number, then it will return all the list elements that include a number,

ii. letter, then it will return all the list elements that include a letter.

- Cleaner class, which will take a string as an input and provide the following methods:

a. tokenize into words/sentences,

b. lemmatize, clean stopwords,

c. make plural/singular,

d. uppercase/lowercase,

e. draw frequency distributions of words.

7. Scrape rates.am : Give us a program which will ask currency then find most efficient exchange rate in banks or exchanges points for both buy or sell.