Regular Expressions (RegEx)

Question 1

Perform the parsing and processing of URL 'https:www.mit.edu' using python Regular Expression (RegEx).

1. Extract the protocol and the hostname from the given URL
2. If the URL is of different type '**file://localhost:4040/zip_file**', find the file, hostname, and port number.
3. For a general URL 'http://www.example.com/index.html', construct the path elements.

Question 2

Write a code in python for validating your VIT email address in form by using string methods such as indexOf() and lastIndexOf() method for @symbol, dot symbol, and space symbol.

Question 3

Write a program to compute the frequency of the words from the input. The output should output after sorting the key alphanumerically.

Suppose the following input is supplied to the program:

New to Python or choosing between Python 2 and Python 3? Read Python 2 or Python 3.

Hint:

In case of input data being supplied to the question, it should be assumed to be a console input.

Output:

2:2

3.:1

3?:1

New:1

Python:5

Read:1

and:1

between:1

choosing:1

or:2

to:1

Question 4

A website requires the users to input username and password to register. Write a program to check the validity of password input by users.

Following are the criteria for checking the password:

1. At least 1 letter between [a-z]

2. At least 1 number between [0-9]

1. At least 1 letter between [A-Z]

3. At least 1 character from [$#@]

4. Minimum length of transaction password: 6

5. Maximum length of transaction password: 12

Your program should accept a sequence of comma separated passwords and will check them according to the above criteria. Passwords that match the criteria are to be printed, each separated by a comma.

Hint:

Example

If the following passwords are given as input to the program:

ABd1234@1,a F1#,2w3E*,2We3345

Then, the output of the program should be:

ABd1234@1

Question 5

Assuming that we have some email addresses in the "username@companyname.com" format, please write program to print the user name and company name of a given email address. Both user names and company names are composed of letters only.

Example:

If the following email address is given as input to the program:

john@google.com

Then, the **output** of the program should be:

john

In case of input data being supplied to the question, it should be assumed to be a console input.

Hint:

Use \w to match letters.

Question 6

Word_Antakshri is a spoken modernparlor game played in India. The game can be played by two or more people and is a popular as a group activity.The first singer has to sing one complete line of song and stops at a point. The last word sung by the previous player is then used by the nextsinger to sing anothernewsong, starting with that word. This process continues until a person or a team that can not come up with the right consonant with in a time constraint. Given the lines of song sung by the first and the second player, design a flowchart and write the Python code to print 'Pass' or 'Stop' word. If rules of the game is followed by the second player then print "Pass" otherwise print "Stop". For example, if the line sung by the first player is "One two three" and the line sung by the second player is "Three four five" then print Pass. If the line sung by the first player is "One two" and the line sung

by the second player is "Three four five" then print Stop. Make the process to be case insensitive.

Input:

Line sung by the first player

Line sung by the second player

Output:
Print 'Pass' or 'Stop'

Sample Input:
One two three
Three four five
$END
One two
Three four five

Sample Output:
Pass
$END
Stop