PROG38263 - Assignment 2 [10 marks, weight - 5%]

Due Date: See the Dropbox on SLATE for due date details.

Instructions:

- *This assignment must be completed individually without any outside collaboration. All work must be your own. Copying or reproducing the work done by others (in part or in full) or letting others to copy or reproduce your own work is subject to significant grade reduction or getting no grade at all and/or being treated as academic dishonesty under the College's Academic Dishonesty Policy.*
- *IMPORTANT: You must submit screenshot(s) demonstrating your work as instructed in the submission guideline. All screenshots MUST show your name and Sheridan student number (you can place a small text window containing your name and id on top of your screen, not covering any content.) Also, make sure each screenshot must show your login id on your terminal and/or the URL of the page. All screenshots must be readable in 100% zoom size. Your submission may not be marked or may receive minimum 30% marks penalty, if one or more required screenshot is missing/unreadable/not following the guideline.*
- *To submit the assignments, please follow the Submission Guideline provided at the end of this assignment.*
- *You must submit the assignment by the due date. Late submissions policy is specified in the Course Plan document available on Slate.*

Description[1]

For this assignment you will practice data validation and regular expressions by processing lines of input from a data file. The file will be a comma separated value (CSV) file where each line will contain a rule to use for validation and a piece of data to validate. The 10 rules in the file are described below. The file will contain an unspecified number of lines. For each line in the data file you will output a line to the console indicating if the data on that line matched the rule on the same line. Your output will be a simple "yes" or "no" string.

You may use any programming language to solve this assignment. Your instructor will be testing your results using a supplied data file, so your program should make it easy to indicate an input file.

Special note: the data column may contain any amount of leading or trailing whitespace which should be ignored.

Validation Rules

student: 9 digits. acceptable formats: 000000000, 000 000 000

password: a-z, A-Z, 0-9, ascii printable special characters, minimum 12 characters

username: a-z, A-Z, 0-9, minimum 3 characters, maximum 20 characters

[1] This assignment was originally prepared by Prof. Nicholas Johnston

email: username@domain.TLD, username, domain and TLD will conform to the rules above for a "username" field. There will only be one TLD (i.e. no multiples like domain.co.uk)

previous: Confirm that this data field is identical to the previous line's data field (excluding whitespace)

phone: A North American phone number. Possible formats: 1234567890, 123.456.7890, 123-456-7890, (123) 456-7890

postal: A Canadian postal code. Possible formats: A0A0A0, A0A 0A0

address: A string field containing a-z, A-Z, 0-9, periods and dashes.

binary: A single binary string, must contain only 1s and 0s with no breaks between digits

bio: A generic string field. Report "no" only if the field contains any html tags.

Sample Input File

```
student,999999999
password,abcd1234
username,user123
email,testuser@testdomain.com
previous,testuse@testdomain.com
phone,123-456-7890
postal,M86 72Z
address,123 street blvd.
binary,11110000
bio,    hello world
student,9999 9999
student,      111111111
password,123456abcdef!!
username,stevedave
previous,stevedave
phone,((416-111-1234
postal,H1R3T7
bio,Hello<script>World</script>
```

Sample Output

```
yes
no
yes
```

```
yes
no
yes
no
yes
yes
yes
no
yes
yes
yes
yes
no
yes
no
```

Submission Guideline

Step 1: Create a document file (e.g., Word file, or PDF file) with name following this format: <YourFirstName><YourID><A2>. Record following information in the first page (either at the top of the page or in a separate cover page) of the document:

- **Course:** PROG38263
- **Assignment:** 2
- **Name:** <Your name>
- **ID:** <Your Sheridan Student Number>
- **Section:** 78534 or 78535
- **Instructor:** Syed Tanbeer

IMPORTANT: 2 marks deduction for missing/incorrect cover information and/or your name and id in your program (as commented)

Step 2: Take a screenshot(s) of the part(s) of your code that shows your name and Sheridan student number as commented and that implements the above validations. Paste the screenshot(s) into the submission document file using appropriate label.

Step 3: Using appropriate command (e.g., cat command or using vim) load the input file on your terminal on Linux. Take screenshot(s) showing the content of the file and paste them into the submission document file using appropriate label.

Step 4: Run your program, take a screenshot of the output. Paste the screenshot into the submission document file using appropriate label.

Step 5: Submit the **document file**, **input file**, the **program file** as a single archive file named <YourFirstName><YourID><A2>.zip on Slate Dropbox for Assignment 2. Please do NOT attach documents of any other types. Email submission will not be accepted.