CS-213 : Lab 4 : AWK

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In this lab you will learn to write awk scripts.
Deadline : 1700 hours 21 August 2018.

Submission guidelines:

Please create a directory called "rollno-lab4" where "rollno" is your roll number.
Keep all your scripts in this directory
Use following command to create a tar ball :

tar -czvvf rollno-lab4.tgz rollno-lab4/

Upload this tarball "rollno-lab4.tgz" on moodle.
Do not change cases, and do not deviate from the naming scheme for your scripts, directory or tar file to be uploaded.
All the awk scripts will be run as
awk -f script.awk inputfile.txt

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1. Matrix multiplier: (matrixmult.awk) :
   Write an awk script to do matrix multiplication. It takes as input two matrices from two files "matrix1" and "matrix2" and gives output in "matrix3", if the multiplication is possible.

2. Decimal to Roman number look up: (romanize.awk)
   Write an 'AWK' script and not a shell script which interactively asks the user to enter a number and outputs it only once in Roman numerals, if the number is within 1 and 10.

   Given below is an expected behaviour:

   - on input : 4 Output : IV
   - on input : 10 Output : X
   - on input : 4 Output : "Given previously".
   - on input : q Program terminates.

   Hint: Use array, split, deleting an array element

3. Counting characters: (countchars.awk):
   Write an 'AWK' script which reads text file and changes each line to also write the number of characters in each field. It should not count punctuation marks.

   For example the input line:
   "For instance, if you match"

   is changed to the following:
   "For instance, if you match 3 8 2 3 5"

4. Article checker: (articlechecker.awk)
   Find out all article mistakes for "a" and "an" from a text file. Dump all usages, along with its line number, that you think are wrong in a file called wrongusage.txt