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# CSCE 215 – Unix/Linux Fundamentals

## Fall 2017 – Assignment 3

### 15 Points

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**Due:** November 10, 2017 (5pm)

## Overview

In this assignment, in addition to the commands covered in the previous homework, we will work with filters and commands such as **grep** and introduce **sed** and **tr**.

## Part 1

This part of the assignment uses the polls.csv file from Assignment 2.

**NOTE: Please use the file from the course website ... instead of your own polls.csv.**

Copy the new file to your assignment 3 sub directory before using it.

Write commands to perform the following (2 points each):

1. Show a list of all the polling organizations.
2. Count the number of unique polling organizations.

## Part 2: The Dictionary and Regular Expressions

The answers to these questions require using the command **grep**, in some cases **wc**, and the dictionary file (`/usr/local/tmp/csce215/Words`). The dictionary is case sensitive; keep this in mind when writing your **grep** commands. Also, for the purposes of these questions, only a, e, i, o, and u are vowels (not y), and a consonant is any character that is not a vowel (including punctuation).

First take a look at the contents of (`/usr/local/tmp/csce215/Words`). Note that each word has two entries. In normal and reverse order. In addition, the first letter of each word is uppercase.

1. Using **tr**, convert all upper case letters to lower case. (1 point)
2. Using **sed**, remove the reversed copy of each word.  
**Hint:** Each word is followed by its reverse on subsequent lines.  
Save the output of this command as a file named “words” in your home directory for use with the remaining questions. (3 points)
3. Count the number of five letter words in the dictionary. (1 point)
4. Count the number of seven letter words in the dictionary that start with the letter “a”. (2 points)
5. Output all the words in the dictionary

`$HOME/words`

that have exactly six consonants (non-vowels) in a row. (4 points)

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## Submission (use `create_assignment`)

All commands should be submitted in a single file, named

[yourUserID].assignment3.txt

which is what you will turn in. Before each command, clearly state which question number you are answering.

- Make sure each command has been tested!
- Keep in mind, that all I am asking for is the commands themselves, **NOT** the output of the commands!
- When you have finished, submit the file containing the commands using the departmental dropbox.