CSCI 2000U: Assignment 2

due Nov. 7, 2015, 17:00 EDT

1. (a) Pull the most recent version of class **`csci-2000-class-resources`** repository from GitHub.

   (b) Create the directory **`csci-2000-personal/Assignments/Assignment-2/`** within **`csci-2000-personal`** (your personal repository) and copy the files **`csci-2000-class-resources/Midterm/*.txt`** into it.

   (c) Your directory **`csci-2000-personal/Assignments/Assignment-2`** should contain two files:

   - **`gadsby.txt`**
   - **`gadsby_stripped.txt`**

   Add these two files into version control and commit the changes to your local repository. Use the log message **`"Assignment 2: committing data files"`**.

   (d) Navigate to the **`csci-2000-personal/Assignments/Assignment-2`** directory and use the command **`touch`** to create two empty files:

   - **`strip.sh`** (for Question 2)
   - **`has_no_e.py`** (for Question 3)

   Add these two *empty* files to version control and commit the changes to your local repository. Use the message **`"Assignment 2: committing empty script/function"`**.

2. The goal of this question is to write a shell script to preprocess the file copied in Question 1. A variant of this script was used to generate the file **`gadsby_stripped.txt`** from **`gadsby.txt`** (you use the **`gadsby_stripped.txt`** in Question 3).

   (a) Edit the shell script **`strip.sh`** to begin with the appropriate **`#!`** Command to launch a **`bash`** interpreter. Add a comment below with your name and student number.

   (b) Construct a pipeline within **`strip.sh`** that removes the leading *k* lines and the trailing *m* lines from a text file and prints the result to the screen. The script **`strip.sh`** should accept three command-line arguments (in the order as follows):

   - *k*, the number of lines to strip from the top of the file;
   - *m*, the number of lines to strip from the bottom of the file; and
   - *filename*, the name of the file to process.

   Hint: **`head -n -`***m* prints all but the last *m* lines and **`tail -n +`***k* prints all but the first *k* lines.

   As a check, your **`script.sh`** should be able to generate the file **`gadsby_stripped.txt`** as follows:

   ```
   $ ./strip.sh 26 2 gadsby.txt > gadsby_stripped.txt
   ```

   That is, the first 26 lines and the last 2 lines are removed from the input file to yield the stripped version.

   (c) When finished, commit your changes to version control with the message **`"Assignment 2: completed strip.sh"`**.

3. The goal of this question is to write a Python function that returns **`True`** if the given word doesn't have the specified letter in it.

   In 1939 *Ernest Vincent Wright* published a 50,000 word novel called *Gadsby* that does not contain the letter '*e*'. Since '*e*' is the most common letter in English, that's not easy to do.

   (a) Edit the **`has_no_e.py`** to contain a Python function **`has_no_e()`**. Your function should accept a string as an input and return **`True`** if the input string doesn't have the letter '*e*' in it, **`False`** otherwise.
   (b) Add some code to **`has_no_e.py`** to read the **`gadsby_stripped.txt`** file line by line and call **`has_no_e()`** function, passing the line as parameter to check whether there is any '*e*'.
   (c) When finished, commit your changes to version control with the message **`"Assignment 2: completed has_no_e.py"`**.

- Make sure all your files have been added and committed to your **`csci-2000-personal`** repository. That is, the following files should all have been added and committed:
  - **`gadsby.txt`**
  - **`gadsby_stripped.txt`**
  - **`strip.sh`**
  - **`has_no_e.py`**
- When ready, push your changes to your remote GitHub repository.