

Python for Informatics

Assignment 4

“Files, Lists, and Split”

Description:

1. Write a program that prompts the user for a filename. Open the file, and read it one line at a time. For each line split the line into a *list* of words called *line_list*. For each word in the current *line_list*, look to see if it is in a list called *script_list*. If the word is not in *script_list*, add it to the *script_list*. Sort the *script_list* alphabetically.
2. Within the same program define a function called *freq_count()*. This function accepts a *str* and a *list* of words as arguments. It traverses the *list* of words and searches each word and counts the occurrences of the substring *str* within each word. Print each word along with the number of substring occurrences found with the associated word.
3. Test your program with the *romeo.txt* file that comes as a text file resource with our textbook. Your program should accept the *filename* and the substring *str* as input from the user. After reading the file to build and sort *script_list*, pass *script_list* into the *freq_count()* function.

Deliverable:

Two files as attachments at our course shell assignment page. The first file should be a Python .py file with the specified functionality. The second file should be a screenshot image file (.png or .jpg) demonstrating the correct execution of your program with “romeo.txt” entered as the filename by the user. Please ensure that your full name is specified as a Python comment at the top of the .py file.