Lecture 7 questions

(These exercises are taken from chapter 4 in Dierbach. Page 164.)

A1. Write a Python program which loops through a list of numbers (you have to supply the list of numbers) and prints the number times two.

A2. Write a Python program where you loop through a list of words:

my_words = ['sahara', 'gobi', 'patagonia', 'kalahari']

and prints the words with capitalized first letter. You can use "word.capitalize()" to capitalize a word.

A3. Write a Python program which has a list of lists:

my_list_of_lists = [['a', 'b', 'c'], ['d', 'e', 'f']]

Here, the entries of the main list are themselves lists.

Use a for loop to print the two elements in the main list (print the sub-lists).

A4. Write a Python program to print the elements in the sub lists (each character) from the list in A3. (now you have to use two for-loops, one inside the other)

P4. Write a Python program that prompts the user to enter a list of first names and stores them in a list. The program should display how many times the letter 'a' appears within the list. Use a for-loop to loop over names in the list, and another for-loop to loop over the letters in the name.

P5. Write a Python program that prompts the user to enter a list of words and stores them in a list only those words whose first letter occurs again within the word (for example, 'Baboon', where b is both the first letter and occurs in the word). The program should display the resulting list.

P6. Write a Python program that prompts the user to enter types of fruit, and how many kilos of fruit there are for each type. The program should then display the information on the form:

fruit , weight

listed in alphabetical order, one fruit type per line as shown in the example below:

Apple, 6 kgs
Banana, 11 kgs
Pineapple, 12 kgs