**Group HW: Problem 1 – Number & Letter Filter**

Assume you have a string, such as "Hello 34215 World 5620 From 384 Bloomington"

Your mission will be to do the following:

1. (20 points) Use a list comprehension to separate out the words from the numbers, and separate them with a space.

2. (15 points) Use a list comprehension to separate out the digits from the words, and put them together in order from smallest to largest.

3. (5 points) Print out both of these, separated by a “|”. The output for the example given above would be:

**>>>**

**Hello World From Bloomington | 012233445568**

4. (10 points) Do this using as few lines of code as possible. The best solution uses 2 lines, including the definition of the string. You will be penalized 5 points for each line of code over 2.

**Group HW: Problem 2 – Real Numbers**

Given a text file such as this one (available on Oncourse as “HW 2 Sample.txt”) :

**REAL: 45**

**FAKE: 20**

**REAL: -10**

**FAKE: 30**

**REAL: 5**

**FAKE: 40**

**REAL: 12**

**FAKE: 50**

**REAL: 1**

**FAKE: 60**

**REAL: -15**

**FAKE: 70**

**REAL: 0**

**FAKE: 80**

**REAL: 35**

**FAKE: 90**

Your mission will be to do the following:

1. (20 points) Use a list comprehension to separate out the lines of the file that start with “REAL:” .

2. (20 points) Add up the sum of the numbers marked as REAL, and print this out. For the file given above, the output would be:

**>>>**

**The sum of the REAL numbers is 73 .**

3. (10 points) Do this using as few lines of code as possible. The best solution uses 1 line, with a fixed filename (you can assume the name, and don’t have to ask the user). You will be penalized 5 points for each line of code over 1.

**Submission**

Upload your program (.py) to Oncourse under Assignments -> Assignment 2 (Group) as a ***.py file***. Name your file as ***YourUsername\_A2\_group.py***

e.g. If I were to upload, it would be johfdunc\_A2\_group.py

Include the following information as a comment at the top of the file you submit:

 Your name

 Your group number

Make sure you submit a copy of the I211 Homework Team Feedback Form (found on Oncourse). You must submit a copy of this form with every homework or lose 50% of your grade!

**Each member of the group must submit their own copy of the homework!**

Test your code thoroughly!