

Python In-class Programming Assignment
Sets

Liang, section 14.3, pp. 479-485

Sets are another powerful tool in Python. With sets you can quickly and easily organize massive amounts of data when your goal is to ensure that you have unique values (no duplicates). As a reminder: *"Sets are like lists in that you use them for storing a collection of elements. Unlike lists, however, the elements in a set are non-duplicates and are not placed in any particular order."*¹

Update your repo if necessary (using `git pull`) and copy all the files in the following directory to a location of your choosing: `~/repo201/classwork/cw40/`. This directory contains a template file called (`findUnique.py`) to get you started.

Write a Python program that takes one input from the command line: A file of alpha codes, separated one per line. The `cw40` directory also contains a file called `alphas.txt` with 1,000 alpha codes, but there's a much smaller number of unique alpha codes in the file. Your program should open the file, *and using sets*, determine: (1) The number of unique alpha codes, (2) the smallest alpha code and (3) the largest alpha code. For alpha codes *smallest* and *largest* indicate their numerical order.

You may assume that the entered file exists and that alpha codes are properly formatted. You don't need to perform exception handling now, but you can add it later if you wish.

Since sets are unordered, what if I asked you to print all the unique alpha codes in numerical order?

¹ Liang p. 479