

IT 210 – Fundamentals of Programming – Lab 7

This program requires you to work in a group of two or three write Python code that implements problem R8_20, parts a, b, and c in your text on page 437. That problem is restated here:

Given three sets, `set1`, `set2`, and `set3`, write Python statements to perform the following actions:

- Create a new set of all elements that are in `set1` or `set2`, but not both.
- Create a new set of all elements that are in only one of the three sets `set1`, `set2`, and `set3`.
- Create a new set of all elements that are in exactly two of the sets `set1`, `set2`, and `set3`.

Implementation comments:

- You may find it useful to define a function whose definition starts: `def makeStr(collection):` that returns a string containing all the elements of a collection (set, list, tuple, etc).
- I will test your program using only strings of characters
- The outputs should contain the characters in sorted order.
- For part b first find the elements that are only found in `set1`, in `set2`, in `set3`, then combine these results
- For part c you will need to do three pair-wise intersections, an intersection of all three and then use union and difference to compute the resulting set.
- DISCUSS how to approach each of the parts with your team members.

A sample run of your program should look like this:

```
Enter a string to be used as set1: abcdefg
Enter a string to be used as set2: cdefghijkl
Enter a string to be used as set3: fghijklmnop
Part A: abhijkl
Part B: abmnop
Part C: cdehijkl
```

Each member of the group must make a submission to D2L with your own name as a comment on line 1 and the name or names of other group members on the next line. If you do the lab solo, I will deduct 20 points. Submit a copy of the lab to the Lab 7 D2L dropbox not later than **11:59 pm Friday** evening. Name your file Lab07.py.