

COSC 251 – Lab #4

Let's use Python for what it's good for!

Purpose: Do some work with REs and lambda!

Task: Utilizing IDLE, build two unrelated functions in Python. Create a file called lab4.py and put in two functions:

- 1.) **retest(s)**: retest is a regular expression function. It takes in a single string and then prints a sequence of Trues or Falses depending on whether or not it satisfies certain patterns:
 - a.) Does s start with an uppercase letter?
 - b.) Does s have the substring "yolo"?
 - c.) Does s have a substring of two upper case letters followed by two numbers and a standard terminating punctuation symbol (.?!)? For example, abcbbadAA31!oakdnova returns True, but abcAdB31?a does not.
- 2.) **lambdatest(mylist, i)**: lambdatest takes in a list, mylist, and an integer, i. Depending on the value of i, we filter and return elements of mylist:

Option 1: all values that are multiples of 3 and are even

Option 2: all values where the square root is an integer

Option 3: all values that start with the letter 'A'

We have provided a driver for this lab. As a note, you must follow all of the naming conventions from above (and summarized below) in order for the driver to function. If the driver does not work with your solution, that will be a minimum 5 point deduction. To test your code on the server, upload your lab4.py and a copy of our driver and run the following command (make sure both source files are in the same directory):

```
python3 lab4driver.py
```

Naming Requirements:

Solution File: lab4.py

RE Function: retest(s)

Lambda Function: lambdatest(mylist, i)

Deliverable: the .py file that contains your source. It should be well commented. You may work in pairs for this lab.

Deductions (beyond incorrect tests):

-5 to -10 does not work with the driver

-3 per incorrect function (fails one or more tests)

-2 no regular expression useage in retest

-2 no lambda usage in lambdatest

-2 lack of comments

Due: By 11:59pm Tuesday. No exceptions. To be turned in via Blackboard.