

## CS001X Intro to Computer Programming with Python

### IF-ELSE-ELIF recap - Login and nested tests

In this lab you will need to put in practice what we learned about the IF/ELIF/ELSE statement and conditions involving numerical ranges.

You were hired by a clinic to develop a program to be used by doctors that consists of 3 steps:

- 1- User authentication - login
- 2- Displaying a basic menu with two blood test options
- 3- Displaying the test results for a given level of a substance found in the patient's blood.

#### Step1 – User authentication

As soon as the program starts it must display “**username:** “

Once the doctor enters their username your program must display “**password:** ” For this program there will be only one account registered:

Username: **doctorpill**

Password: **justacold**

In case the user (doctor) gets either the username or password wrong, your program should display: “**invalid username and/or password**”, if both are correct, the program should go to the next step.

#### Step2 – Test Selection

After a successful login, your program should ask if they want to evaluate the patient's **LDL** (low density lipoprotein) levels or the patient's **triglycerides** levels.

\*One way of making this task simpler for the user and for you is by giving each option a number instead of having the user to type complicated words, doing it this way you reduce the chance of typos or words formatted in unexpected ways. For example:

```
*****  
BLOOD TESTER 2020  
*****
```

- 1) LDL
- 2) Triglycerides

Please select a test to run (1/2): “user will enter selection here”

If the user entered **anything other than 1 or 2** your program should display “**Invalid option.**”

#### Step3 – Evaluation

After the test selection your program should ask for the **level of LDL** (in case of option 1) or for **the level of triglycerides** (in case of option 2) that was found in the patient's blood (**integer**) and then print the result according to the tables bellow:

LDL (Bad) Cholesterol - Level	LDL (Bad) Cholesterol - Category	Triglycerides - Level	Triglycerides - Category
Less than 100 mg/dL	Optimal or ideal	Less than 150 mg/dL	Optimal or ideal
100-129 mg/dL	Near optimal/above optimal	150-199 mg/dL	Borderline high
130-159 mg/dL	Borderline high	200-499 mg/dL	High
160-189 mg/dL	High	500 mg/dL and above	Very high
190 mg/dL and above	Very high		

For example, if the doctor selected **LDL** and entered **145**, your program should print “**Borderline high**”.

For example, if the doctor selected **triglycerides** and entered **999**, your program should print “**Very high**”.

For example, if the doctor selected **LDL** and entered **36**, your program should print “**Optimal or Ideal**”.

To check if a value is within a specific range you can use `>`, `>=`, `<`, `<=` and combine them using logical operators **and** , **or**

\*if you want you can format the output using `/n /t` or the **format()** function

**\*\*Please note that these tests, and the numbers you see, are fictional.**