Lab 8 - Username and Password Set-up

** Learning Objectives: Demonstrate understanding of string methods slicing, isdigit, isupper, and len() **

To create accounts most of us are given a username and validated a password. This lab part 1 will cover the process of creating a username and validating a password. Usernames are usually assigned by your first name, last name, and number. Passwords have to satisfy certain requirements to reach higher-level security.

Step 1: Create a function that generates and displays the username

Write a function called *get_login_name* that takes three parameters: first, last, year born. The function should set up the following:

Takes the first three characters of the first name.
Takes the first three characters of the last name.
Takes the last three characters of the year born.
Concatenate to create the login name and display it by using the print function. Return the login name.

Step 2: Create a function that asks the user for a password, validates it, and returns the password

Write a function called *valid_password* that does not take any parameters. Use a while loop to make sure the user inputs a valid password. The function should set up the following:

Create boolean variables for size, digit, character, capital_letter.
Display the requirements for the password to the user. "Make sure your password is at least 8 characters long, at least one digit, at least one character (@,#,$), and at least one capital."
Use a while to make sure the password satisfies all the requirements
Take input from the user by displaying "Enter a password: ".
Use conditional statements to check for conditions satisfied.
If the password does not satisfy the requirements display the instructions again "Make sure your password is at least 8 characters long, at least one digit, at least one character, and at least one capital."
Return the password.

Step 3: Create the main function and prompt the user for information

Write the main function. The function should set up the following:

Prompts the user "Enter your first name: " and takes an input.
Prompts the user "Enter your last name: " and takes an input.
Prompts the user "Enter your year born: " and takes an input.
Displays the "Your system login name is: " with the login name. Call the get_login_name function.
Call the valid_password.
Well done, you have created a user login name and validated a password.

Test

Try out your functions with different values to check if it is working correctly. There are two unit test created for you to test your *get_login_name* and *valid_password*

Submit

There are automated tests for this lab so make sure they pass before submitting. As always, stop by student hours, send an email, check in with a peer, or stop by the STEM Center if you need any assistance.