**Week 3 Exercises**

**Problem 1: Password Strength Checker**

Create a program that checks the strength of a password entered by the user. The program should evaluate the password based on the following criteria:

* At least 8 characters long.
* Contains only uppercase letter.
* Contains only lowercase letter.
* Contains only one digit.
* Contains at least one special character (e.g., !, @, #, $).

The program should display the password's strength as "Weak," "Moderate," or "Strong" based on how many of these criteria are met.

***I did not completely follow the instructions, since containing only uppercase/lowercase/digit is not generally considered as safe.***

Paste the screenshot of your source code below:

password = **input**("Your password: ")

crit\_met = 0

if **len**(password) >= 8:

crit\_met += 1

if **any**(map(str.**isupper**, password)):

crit\_met += 1

if **any**(map(str.**islower**, password)):

crit\_met += 1

if **any**(map(str.**isdigit**, password)):

crit\_met += 1

if not password.**isalnum**():

crit\_met += 1

if crit\_met <= 2:

strength = "Weak"

elif crit\_met >= 4:

strength = "Strong"

else:

strength = "Moderate"

**print**("Your password's strength is", strength)

Paste the screenshot of your output below:

**A screen shot of a computer

Description automatically generated**

**Problem 2: Email Validator**

Create a program that validates an email address entered by the user. The program should check if the email address meets the following criteria:

* Contains the "@" symbol.
* Contains at least one period (".") after the "@" symbol.
* Does not contain spaces.

The program should display whether the email address is valid or not.

Paste the screenshot of your source code below:

def **email\_checker**(email: str) -> bool:

if email.**count**('@') != 1:

return False

if not '.' in email[email.**find**('@'):]:

return False

if ' ' in email:

return False

return True

email = **input**("Your email: ").**strip**()

**print**(f"Your email is {'' if **email\_checker**(email) else 'not '}valid")

Paste the screenshot of your output below:

**A screen shot of a computer

Description automatically generated**