Extra Credit Assignment

Due date: Apr 15th, 6 pm

Password Strength Indicator

Functions help you abstract away complex operation, but they also help you build reusable components.

Create a MATLAB function that determines the complexity of a given password based on these rules:

- A very weak password contains only numbers and is fewer than eight characters.
- A very weak password contains only letters and is fewer than eight characters.
- A weak password contains letters and at least one number and is fewer than eight characters.
- A strong password contains only numbers and is at least eight characters.
- A strong password contains letters and is at least eight characters.
- A very strong password contains letters and numbers and is at least eight characters.

Constraints:

Create a **`PasswordValidator`** function that takes in password as its argument and returns a string specifying the password strength. Test your function for passwords given below. Submit two files in Canvas: a pdf document with a copy of your function and tests output and your function m-file.

> This is an individual work. You may NOT seek help or guidance from any other person. This includes current students, former students, students in other classes, scientists, relatives, industry personnel, and anybody else in the universe. The only person you may ask questions of is your instructor, Dr. Nataliya Altukhova, however you should understand that she reserves the right to not provide you with answers to your questions.

Example Output

```
The password '12345' is a very weak password
The password 'adcd' is a very weak password
The password 'adcd5' is a weak password
The password 'adcdefgh' is a strong password
The password '123456789' is a strong password
The password 'abcd123xyz' is a very strong password
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