



CODE CHALLENGE
CHAMPIONSHIP

PYTHON MISSION 3

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JUNIOR CATEGORY

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Account Password Validator

Overview:

An online courses platform wants to enhance its security by ensuring that users create strong passwords that meet specific criteria. To help users choose strong passwords and protect their accounts, the platform needs to build a function that checks the strength of a password and provides feedback based on its complexity.

Mission:

- 1- Create a function named **"check_password"** that takes one parameter named **"password"** of type string.
- 2- The function will validate the password based on the following:
 - It must be at least 8 characters long.
 - Contains at least one lowercase letter (a-z).
 - Contains at least one uppercase letter (A-Z).
 - Contains at least one digit (0-9).
- 3- For each character, print whether it is **"passed"** or **"failed"** based on the previous criteria.
- 4- After checking all characters, it should classify the password's strength based on its length as the following:
 - From 8 to 11 characters → **Weak password.**
 - From 12 to 15 characters → **Medium password.**
 - 16 characters or more → **Strong password.**
- 5- The program will be working as long as **"stop"** is not entered.

As a bonus part, add an empty list that will collect all invalid passwords **which lack one or more** of the previous criteria and print them at the end of the program.

Useful Hints:

- ✓ Use the string methods: **islower()**, **isupper()**, and **isdigit()** to easily check the needed criteria.
- ✓ Use the **len()** function to calculate the length of each password.
- ✓ For the bonus part, use the **append()** method to add the invalid passwords into the empty list.

Expected Output:

Example of a valid password but its strength is weak

```
Enter a password (or 'stop' to end): Python123
```

```
'P': Passed -> Uppercase  
'y': Passed -> Lowercase  
't': Passed -> Lowercase  
'h': Passed -> Lowercase  
'o': Passed -> Lowercase  
'n': Passed -> Lowercase  
'1': Passed -> Digit  
'2': Passed -> Digit  
'3': Passed -> Digit
```

```
'Python123' is weak  
It passed the criteria.
```

The entered password passed the criteria mentioned but is a weak password.

Example of an invalid password its strength is weak too

```
Enter a password (or 'stop' to end): Python_123
```

```
'P': Passed -> Uppercase  
'y': Passed -> Lowercase  
't': Passed -> Lowercase  
'h': Passed -> Lowercase  
'o': Passed -> Lowercase  
'n': Passed -> Lowercase  
'_': Failed -> Invalid  
'1': Passed -> Digit  
'2': Passed -> Digit  
'3': Passed -> Digit
```

```
'Python_123' is weak  
It failed to meet the criteria.
```

The entered password doesn't meet the criteria mentioned due to the _

Example of another invalid password and the bonus part

Enter a password (or 'stop' to end): Python

'P': Passed -> Uppercase

'y': Passed -> Lowercase

't': Passed -> Lowercase

'h': Passed -> Lowercase

'o': Passed -> Lowercase

'n': Passed -> Lowercase

'Python' is too short!

It failed to meet the criteria.

Enter a password (or 'stop' to end): stop

Invalid passwords: ['Python_123', 'Python']

The entered password doesn't contain digits, and its length is less than 8 characters.

Bonus part

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