Practical Session · Tech Foundations · 17/04/2018

Introduction to Platform Technologies: Python

Duration: 1 hour

PART 1

An international bank's website requires the users to input **username** and **password** to register in their website.

Using ***OOP*** and ***functions***, write a program to

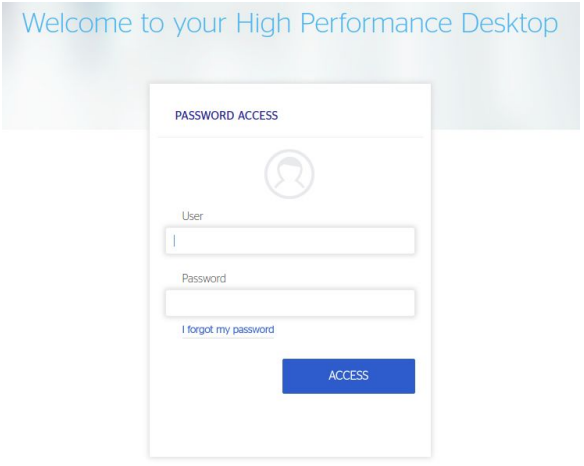
- Ask the user to *enter his username and password.*
- *Check the validity* of the entered password.
- If the password is correct then save the logged in time.

Following are the criteria for checking the password:

1. At least 1 number between [0-9]
2. At least 1 letter between [A-Z]
3. At least 1 character from [$#@]
4. Minimum length of transaction password: 6
5. Maximum length of transaction password: 12

Hint

- You can use the following list to check lowercase and uppercase chars in the password. ['a','b','c','d','e','f','g','h','i','j','k','l','m','n','o','p','q','r','s','t','u','v','w','x','y','z']
- To assign inputs from console to variables use the function: **input(**"message"**)**
- To return the present time you can use the function: **now()** from **datetime.datetime**



PART 2

Choosing a new password is not an easy task. *afernandez* has been trying to choose a correct password for an entire day, and finally he has got some of them.

Help him to detect what mistakes he did while trying to type a valid password and show him which of his passwords were totally fine.

For this part you will use the file **userlogs.csv**.

- Load the file as a **dataframe** using the knowledge acquired in the *pandas session*.
- Create two new columns,
    - One indicates whether the password is valid or not.
    - The other one describes the mistake made
- Save the resulting dataframe in **userlogserrors.csv**. Check ***pd.DataFrame.to_csv?***
- Print the valid passwords.

Hint

- Make use of the password validation function developed in Part 1.
- Possible errors in password: **["Longitud", "Letra minúscula", "Letra mayúscula", "Dígito del 0 al 9", "$,@,#", "None"]**