Lab 03

CS457 Big Data Security

Assignment: Password Validator

Assignment given on : 03-Feb-2025

Assignment to be shown on: 10-Feb-2025

Part 1. Handwritten Assignment

The hand written assignment will be of at least 2 pages [1 sheet back to back] (excluding figures) of handwritten text on choosing secure passwords and the best practices associated with it.

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Part 2: Password Validator with Skip from user input

Password Validator with Skip: Write a Python program that checks a list of passwords using the criteria. All password should be min 8 length else its always invalid. First ask the user for the criteria it wants to check. These are four criteria:

Uppercase letters (A-Z)

Lowercase letters (a-z)

Numbers (0-9)

Special characters (!, @, #) [Only 3 characters allowed]

Lets say, user will select: 1, 3, 4 so that means all the passwords should match criteria 1, 3, 4. Its AND clause. So criteria 1 & 3 & 4 should be matched.

If user will select: 1, 2, 3, 4 so that means all the passwords should match criteria 1, 2, 3, 4. If a password has a length less than 8, use pass to proceed without any validation and notify the user about the password length issue.

Example:

password_list = [

"abc12345", # Invalid password. Special characters missing

"abc", # Invalid password. Less than 8 Characters. Missing Special characters, Uppercase letters, Numbers

"123456789", # Invalid password. Missing Special characters, Uppercase letters, lowercase letters

"abcdefg$", # Invalid password. Missing Uppercase letters, Numbers

"abcdefgABHD!@313", # Valid password.

"abcdefgABHD$$!@313", # Invalid password. It contains $ which is not allowed.

]

Take input from user.

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Part 3: Password Validator with Skip from input file input.txt

Make the input.txt with at least 1000 passwords.

Same as prev but it should read passwords from file input.txt. This is self study. It should read the file input.txt and display total count of valid and invalid passwords.