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CMSC 204

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Pseudocode

Using the given java doc, I will construct the class PasswordCheckerUtility();

Declare a method IsValidPassword()

{

LengthException - thrown if length is less than 6 characters

NoUpperAlphaException - thrown if no uppercase alphabetic

NoLowerAlphaException - thrown if no lowercase alphabetic

NoDigitException - thrown if no digit

NoSpecialCharacterException - thrown if does not meet SpecialCharacter requirement

InvalidSequenceException - thrown if more than 2 of same character.

The method checks for the above exceptions and returns false if an invalid password

}

Declare a method IsWeakPassword()

{

The method checks whether the password >6&&<10 and returns true if the number of characters is between six and ten otherwise false.

}

Declare a method getInvalidPassword() {

The method returns ArrayList String of invalid passwords reads a file of passwords and the passwords that failed the check will be added to an invalidPasswords with the reasons listed below

· the number of characters <6 or

· No at least one upper case letter or

· No at least one lower case letter or

· No at least one numeric character or

· No character is repeated more than twice in the sequences

}

Create public static boolean hasUpperAlpha {

Checks the password alpha character requirement - Password must contain an uppercase alpha character  
Throws:

NoUpperAlphaException - thrown if does not meet alpha character requirement

}

Create public static boolean hasSpecialChar {

Checks the password SpecialCharacter requirement - Password must contain a Special Character

Throws:

NoSpecialCharacterException - thrown if does not meet SpecialCharacter requirement

}

Create public static boolean hasSameCharInSequence {

Checks the password Sequence requirement - Password should not contain more than 2 of the same character in sequence

Returns:

false if does NOT meet Sequence requirement

Throws:

InvalidSequenceException - thrown if does not meet Sequence requirement

}

Use the given expression to check for a special symbol

Pattern pattern = Pattern.*compile*("[a-zA-Z0-9]\*");  
 Matcher matcher = pattern.matcher(str);

And return (!matcher.matches());

Test table

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test case # | Input | Actual  input | Expected  output | Actual  output | Did the test pass? |
| 1 | Beautiful | Beautiful | Valid | Must contain at least 1 special char letter | No |
| 2 | check00@ | check00@ | Valid | Must contain at least 1 upper letter | No |
| 3 | pas | pas | valid | Weak password | No |
| 4 | Hello1@23 | Hello1@23 | Valid | Valid Password | yes |

Learning Experience

Doing Assignment 1 open my eyes for me to look at every ways of coding I used to do on C++ and Java 203 classes. It really helped me get back to my studies and look at ways to fix bugs and conjugate my knowledge to work on the assignment.

I had some difficulties on getting the main point of the assignment and I finally find a way to do the assignments by using the Javadoc given. After I created two of the classes which are BasicDoubleLinkedList and SortedDoublyLinkedList, I used the assignment sheet to write the codes.

If I was the instructor, I would reduce the load of the assignment. It is a lot of work for students that are new to coding and have not much of previous experience.

All in all, the assignment was helpful to finalize what we learned so far. Even though it was challenging to do assignments on an online class, the videos posted on blackboard and the Saturday lecture helps.