Module 7 Assignment Results Document

Listing or PassValidation.java

/\* *Edgar Rosales*

*\* 25 Apr 2024*

*\* CSD320-J318 Programming with Java (2245-DD)*

*\**

*\* Module 7 Assignment:*

*\* Some Websites impose certain rules for passwords.*

*\* Write a method that checks whether a user's input String is a valid password.*

*\* Suppose the password rules are as follows:*

*\**

*\* A password must have at least eight characters.*

*\* A password must contain both letters and digits.*

*\* A password must contain at least one uppercase character.*

*\* A password must contain at least one lowercase character.*

*\**

*\* This looks like a great opportuinity to create and use a class*

*\* to pass a password validation in any other program*

\*/

*public* *class* PassValidator {

    // *Method for checking the password*

*public* *static* boolean isValid(String password) {

        // *Check if the password length is at least eight characters*

        if (password.length() < 8) {

            return false;

        }

        // *Check if the password contains both letters and digits*

        boolean hasLetter = false;

        boolean hasDigit = false;

        for (char index : password.toCharArray()) {

            if (Character.isLetter(index)) {

                hasLetter = true;

            } else if (Character.isDigit(index)) {

                hasDigit = true;

            }

        }

        if (!hasLetter || !hasDigit) {

            return false;

        }

        // *Check if the password contains at least one uppercase character*

        boolean hasUppercase = false;

        for (char index : password.toCharArray()) {

            if (Character.isUpperCase(index)) {

                hasUppercase = true;

                break;

            }

        }

        if (!hasUppercase) {

            return false;

        }

        // *Check if the password contains at least one lowercase character*

        boolean hasLowercase = false;

        for (char index : password.toCharArray()) {

            if (Character.isLowerCase(index)) {

                hasLowercase = true;

                break;

            }

        }

        // *all other tests have passed, returning last true value*

        return hasLowercase;

    }

}

Listing Module7.java

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*\* The class PassValidator.class is used in this program,*

*\* however I was not able to "import" it as it is in the same package.*

\*/

import *java*.*util*.*Scanner*;

*public* *class* Module7 {

*public* *static* void main(String[] args) {

        // *Create Scanner object*

        Scanner scanner = new Scanner(System.*in*);

        // *Initialize variable for while loop*

        boolean next = true;

        // *Main loop will repeat if user types anyhting stating with "y"*

        while (next) {

            System.*out*.print("\nEnter your password: ");

            String password = scanner.nextLine();

            // *Use the PassValidator class, if it returns true it passed validation*

            if (PassValidator.isValid(password)) {

                System.*out*.println("Valid password.");

            } else {

                System.*out*.println("Invalid password.");

            }

            // *Ask user if they want to try another check*

            System.*out*.print("\n\nAgain? ");

            String doagain = scanner.nextLine();

            // *This takes the first character of the user input, then changes it to lower case*

            if (!doagain.isEmpty()) {

                char firstChar = Character.toLowerCase(doagain.charAt(0));

                if (firstChar != 'y') {

                    // *If the was not "y" then end the loop*

                    next = false;

                }

            }

        }

        // *Close the scanner bject*

        scanner.close();

    }

}

GitHub Links:

<https://github.com/erosales48/csd/blob/master/csd-320/Module-7/Module7.java>

<https://github.com/erosales48/csd/blob/master/csd-320/Module-7/PassValidator.java>

Example 1:

A computer screen shot of a computer screen

Description automatically generated

Example 2:

A black screen with white text

Description automatically generated

Example 3:

A screen shot of a computer

Description automatically generated