import javax.swing.JOptionPane;

public class LoginP2 {

//decalre necessary variables

static String username;

private static String password;

private static String firstName;

private static String lastName;

public static void main(String[] args) {

registerUser();

//method to execute register user

loginUser();

//method to execute login user

}

public static boolean checkUserName(String username) {

//https://stackoverflow.com/questions/65926273/how-to-set-a-character-limit-in-java

//add the username requirements

return username.contains("\_") && username.length() <= 5;

}

public static boolean checkPasswordComplexity(String password) {

//add the password requirements

return password.length() >= 8 && password.matches(".\*[A-Z].\*") && password.matches(".\*[a-z].\*") && password.matches(".\*\\d.\*") && password.matches(".\*[!@#$%^&()].\*");

//\*\\d.\* is a meta chatracter that matches any didgit from 0-9. useful in code that requires integers

// https://stackoverflow.com/questions/47341745/java-password-checker-with-strings

//https://stackoverflow.com/questions/12885821/checking-if-a-character-is-a-special-character-in-java

}

public static boolean registerUser() {

//Ibironke, A. (2021). Java Code: Login System. [Source code]. GitHub. https://gist.github.com/oyinibosi/a7cbce720d925f2c3a3a9aa90d1bf317

firstName = JOptionPane.showInputDialog(null, "Enter first name:");

//prompt user to enter first name

lastName = JOptionPane.showInputDialog(null, "Enter last name:");

//prompt user to enter last name

username = JOptionPane.showInputDialog(null, "Enter username:");

//prompt user to enter username

if (checkUserName(username)) {

//https://stackoverflow.com/questions/36392749/if-statements-and-usernames-password

//message to be displayed if username matches requirements

JOptionPane.showMessageDialog(null, "Username successfully captured");

} else {

//error message to be displayed if username doesnt meet requirements

JOptionPane.showMessageDialog(null, "Username is not correctly formatted, please ensure that your username contains an underscore and is no more than 5 characters in length.");

return false;

}

password = JOptionPane.showInputDialog(null, "Enter password:");

if (checkPasswordComplexity(password)) {

//https://java2blog.com/validate-password-java/

//message to be displayed if password matches requirements

JOptionPane.showMessageDialog(null, "Password successfully captured");

return true;

} else {

//error message to be displayed if username doesnt meet the requirements

JOptionPane.showMessageDialog(null, "Password is not correctly formatted, please ensure that the password contains at least 8 characters, a capital letter, a lowercase letter, a number, and a special character.");

return false;

}

}

public static boolean loginUser() {

//prompt user to confirm username and password. if they do not match then the code wont allow them to proceed further

String enteredUsername = JOptionPane.showInputDialog(null, "Confirm username:");

String enteredPassword = JOptionPane.showInputDialog(null, "Confirm password:");

if (enteredUsername.equals(username) && enteredPassword.equals(password)) {

//message to be displayed if the login has been successful

JOptionPane.showMessageDialog(null, "Welcome to EasyKanban" + " , " + firstName + " " + lastName + " ! ");

return true;

} else {

//error message to be displayed if the login was unsuccessful

JOptionPane.showMessageDialog(null, "Username or password incorrect, please try again.");

return false;

}

}

}