

Project name: Exceptions at the Lowest Level

Module name: Login-v5 Module

Developer: First Name Last Name

Course: CEN 4078 Secure Software Development

Date: Date

Table 1. Login Module Test report

<b>Data</b>	<b>Proof</b>
	<ul style="list-style-type: none"> <li>- <i>may be copy of code snippet</i></li> <li>- <i>may be screen captures</i></li> <li>- <i>may be written proof but must have data not just prose</i></li> <li>- <i>check it after you submit. Make sure it is readable.</i></li> <li>- <i>How about you make a table of inputs and results in addition to the above?</i></li> </ul>
Create a password-handler class in your login module	<pre> 3 // Version 5.0 - Added passwordHandler class 4 5 public class passwordHandler { 6     private static final SecureRandom random = new SecureRandom(); 7     private static final String CHARACTERS = "ABCDEFGHIJKLMNOPQRSTUVWXYZ"; 8     private static final int MIN_PASSWORD_LENGTH = 8; 9     public static final String ALPHA_KEY = "ARGOSROCK"; 10    public static final String NUMBER_KEY = "1963"; 11    private static final String ALPHABET = "ABCDEFGHIJKLMNOPQRSTUVWXYZ"; 12 13    // Version 3.0 - Restricting Password characters </pre>
List all password handling moved or created in this password-handler.	<p><b>isValidPassword</b></p> <p><b>encryptVigenere</b></p> <p><b>decryptVigenere</b></p> <p><b>encryptNumber</b></p> <p><b>decryptNumber</b></p> <p><b>vigenereCipher</b></p> <p><b>createDefaultPassword()</b></p>

List all password handling which is not the password-handler class. Justify why.	All password handling has been transferred to passwordHandler class to improve code read ability and modularity
List the exceptions created. Include which classes and methods they are in.	passwordPolicyException and passwordValidationException are thrown in the isValidPassword method  defaultPasswordException is thrown in the createDefaultPassword
Validate the exception handling.	<p>Enter a new username: 7CharacterTest Create a new password: Password validation failed: Password must be at least 8 characters long. Create a new password: █</p> <p>Enter your username: 8CharacterTest Enter your password: Password validation failed: Password must include:            - At least 8 characters            - At least one uppercase letter (A-Z)            - At least one lowercase letter (a-z)            - At least one digit (0-9)</p> <pre> try {     if (!isValidPassword(password.toString())) {         throw new defaultPasswordException("Failed to create a valid default pas     } } catch (passwordPolicyException   passwordValidationException e) {     throw new defaultPasswordException("Failed to create a valid default passwor }  return password.toString(); } </pre>
Justify why your exceptions	The exceptions are at the lowest level by detecting and reporting precisely as they occur.

are at the lowest level.	
Did you meet all the requirements. If not, describe why?	yes
Did you make changes to code from past assignments? If so, please describe including what requirements were tied to the code.	<p>Yes a decent bit of changing I transferred all password related logic to a dedicated password handler class which helps code organization</p> <p>Created exception handling</p> <p>Changed login attempts to 3 to allow for exception testing</p>