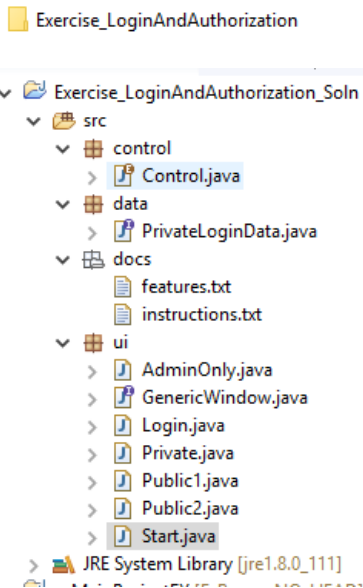# Login and Authorization Demo

Complete the coding exercise given in the Eclipse project

Exercise_LoginAndAuthorization – download from the ebazaar/code directory.

📁 Exercise_LoginAndAuthorization

```
∨ 📂 Exercise_LoginAndAuthorization_Soln
   ∨ 🗁 src
      ∨ ⊞ control
         › 🗾 Control.java
      ∨ ⊞ data
         › 🗾 PrivateLoginData.java
      ∨ 🗄 docs
            📄 features.txt
            📄 instructions.txt
      ∨ ⊞ ui
         › 🗾 AdminOnly.java
         › 🗾 GenericWindow.java
         › 🗾 Login.java
         › 🗾 Private.java
         › 🗾 Public1.java
         › 🗾 Public2.java
         › 🗾 Start.java
   › 📚 JRE System Library [jre1.8.0_111]
```
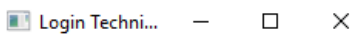
Note: Here are the logins for this application:

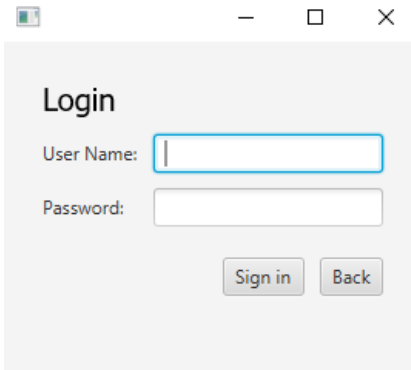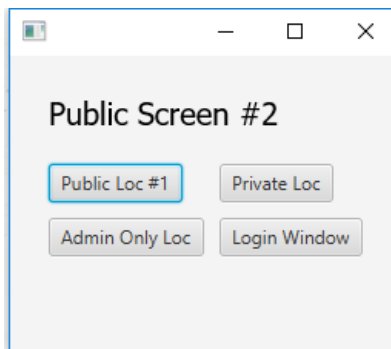userid = 1   password = 1

userid = 2   password = 2

Refactor the code provided here to support single sign-on and proper authorization levels. Your solution should guarantee the following:
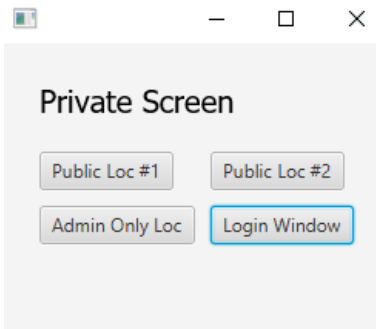

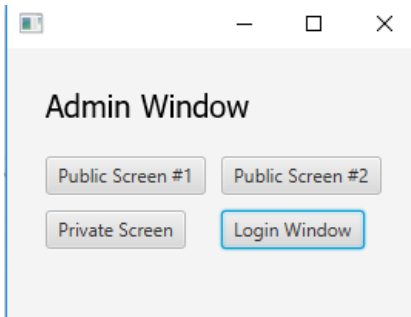1. Any user can access screens Public1, Public2, Login

Public Screen #2

Public Loc #1	Private Loc
Admin Only Loc	Login Window

Login

User Name: |

Password:

| Sign in | Back |

---

2. Users with id = 1 or id = 2 who have logged in may

access Public1, Public2, Login, and Private

Private Screen

Public Loc #1	Public Loc #2
Admin Only Loc	Login Window

3. Users with id = 2 who have logged in may access
all screens.

Admin Window

Public Screen #1	Public Screen #2
Private Screen	Login Window

4. After a user logs out, he may access only Public1, Public 2, Login

5. Once a user logs in, he may access any of the windows he is authorized to view without logging in again (this is "single sign-on")

6. Whenever a user attempts to login using the Login window, and
login is not successful, a message should be shown at the bottom
of the login window -- in red -- stating "Login failed"

7. If a user has chosen the "login" option from anywhere in the application,
the Login window should be displayed. If his attempt to login is successful,
a message should be shown at the bottom of the login window -- in green --
stating "Login successful".

8. If a user who has not logged in attempts to access

Private, the Login window should be displayed. If login is successful, the Private window should be displayed.

9. If a user who has not logged in attempts to access AdminOnly, the Login window should be displayed. If login is successful and the login name is "2", the AdminOnly window should be displayed. If the login name is "1" and password is "1", a message, in red, stating "Not authorized" should be displaed on the Login window.

```java
private static class UserState {
    private static boolean isLoggedIn = false;
    private static boolean hasAdminAccess = false;
    private static GenericWindow currentTarget = null;
    private static void reset() {
        isLoggedIn = false;
        hasAdminAccess = false;
        currentTarget = null;
    }
}
```