

**Cognex Designer Advanced – Section 2**  
**User Control & Auditing Lab**  
**Approximate Duration: 30 minutes**

**EXPECTED OUTCOMES:**

- Add User Control to the application
- Audit any changes that happen with regards to a new user

**EXPECTED VISUAL RESULT:**



**OUTLINE OF LAB:**

- 1. Add User Control**
  - a. Add User Account information**
  - b. Add a login page to come up at start-up**
  - c. Display on main page the current user logged in**
- 2. Reset to default user after 1 minute of inactivity**
  - a. Add an Inactivity Monitor**
- 3. Add Audit Trail for changes in User Account**
  - a. Display table on Login Screen**

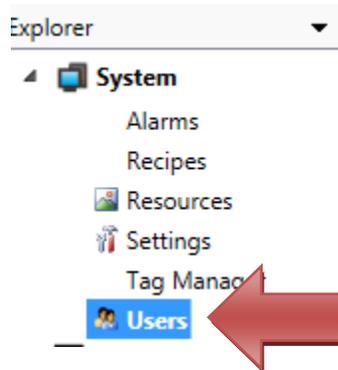
**Challenge: Add Audit Table to a separate page that pops up from a button on the login page. Only certain levels can see the Audit Table.**

## Steps for the Lab:

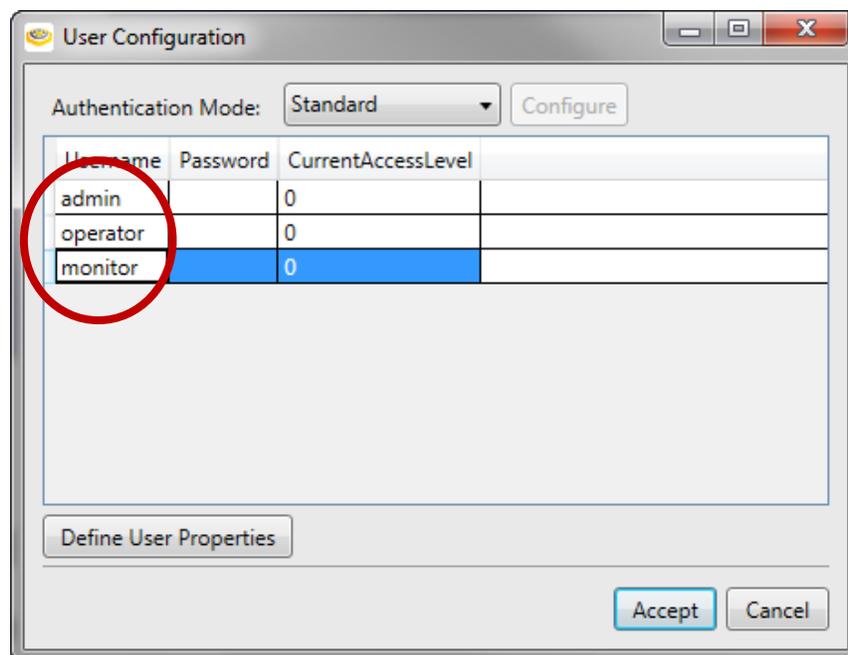
### 1. Add User Control

#### a. Add User Account information

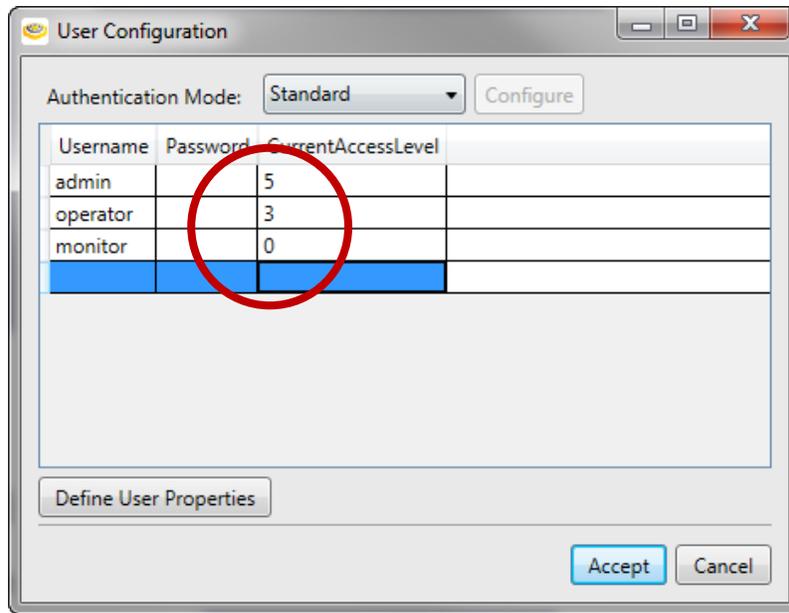
- i. Go to the System area under the Explorer pane and double-click on Users.



- ii. Add some users to the list like "admin", "operator", and "monitor". Give them passwords if you'd like.



iii. Assign them some level of access



iv. Press Accept

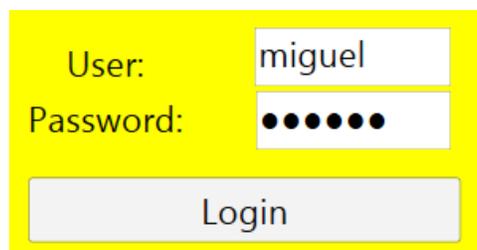
b. Add a login page to come up at start-up

i. Add a new page and call it "LoginPage".

LoginPage

MainPage

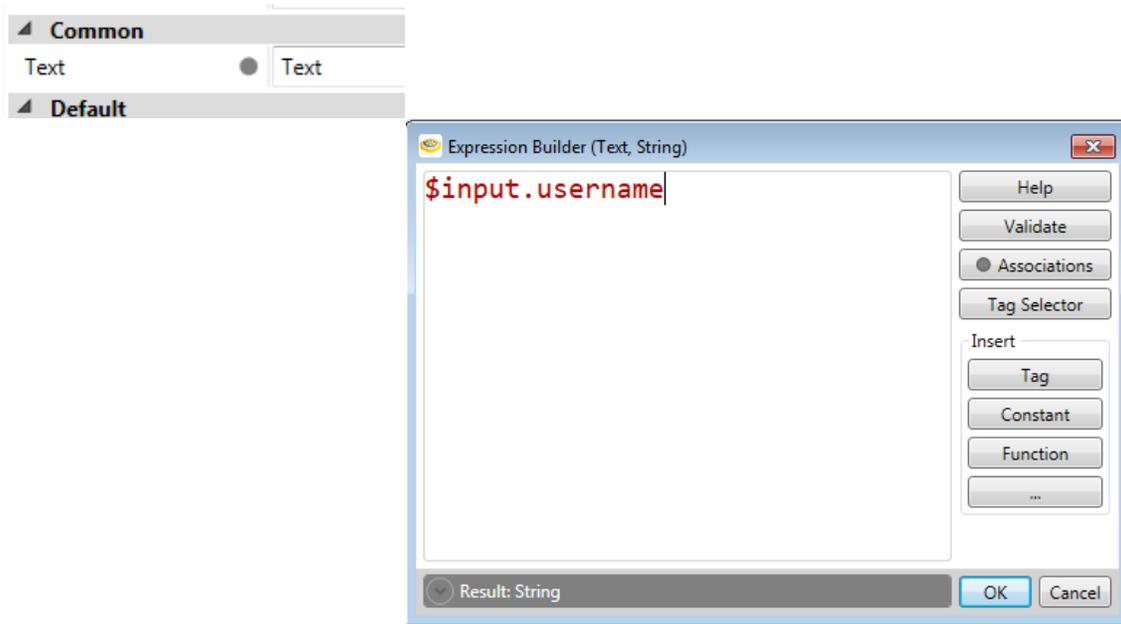
ii. Add some text, a TextBox, PasswordBox, and a button to the page.



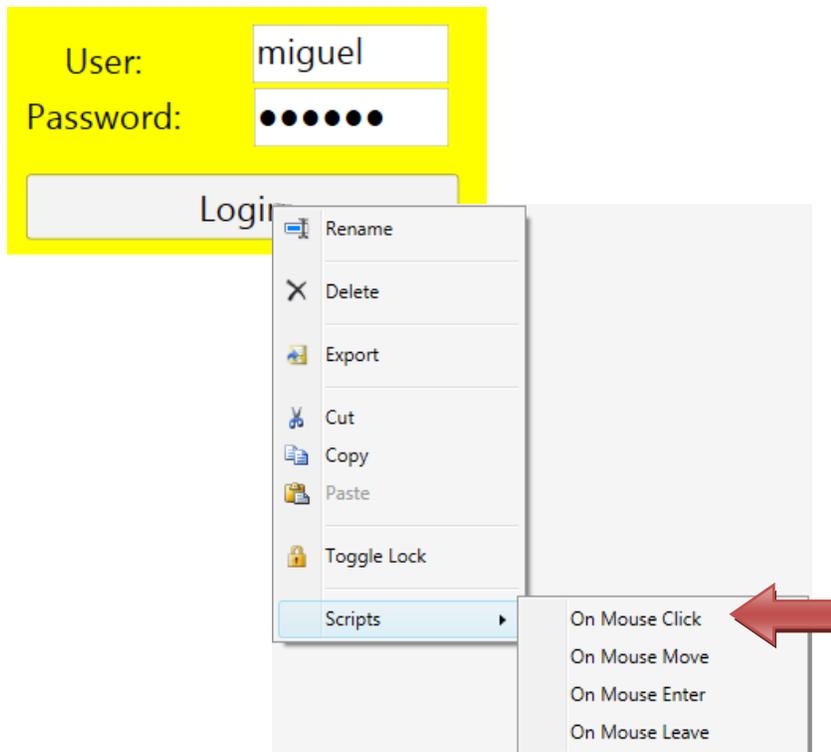
iii. In the Tag Manager, add a tag named "Input.Username" and one called "Input.Password". Make them both be strings.

Input.Username		String
Input.Password		String

- iv. Assign \$Input.Username to the Text Property of the TextBox.



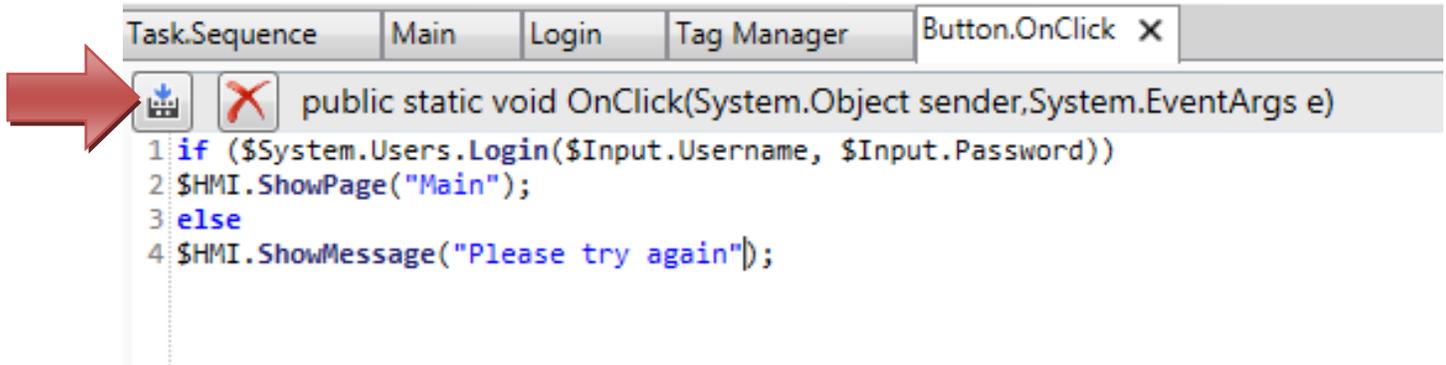
- v. Assign \$Input.Password to the Password Property of the PasswordBox
- vi. Since we want to do more than one command, we need to enter a script for the button. Right-click on the “Login” button and choose “Scripts” and then “On Mouse Click”



**vii.** Write the following code into the script:

```
if ($System.Users.Login($Input.Username, $Input.Password))  
$HMI.ShowPage("Main");  
else  
$HMI.ShowMessage("Please try again");
```

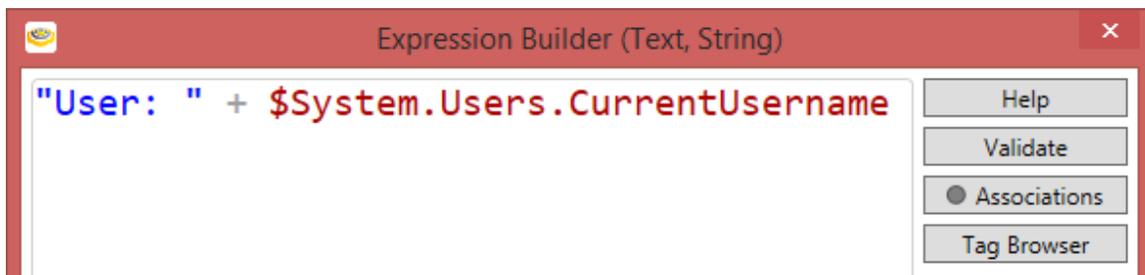
viii. Compile and make sure everything looks OK.



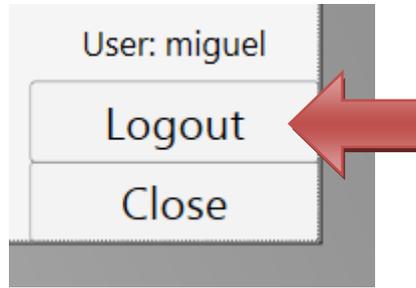
```
Task.Sequence | Main | Login | Tag Manager | Button.OnClick X  
public static void OnClick(System.Object sender, System.EventArgs e)  
1: if ($System.Users.Login($Input.Username, $Input.Password))  
2: $HMI.ShowPage("Main");  
3: else  
4: $HMI.ShowMessage("Please try again");
```

c. Display on main page the current user logged in

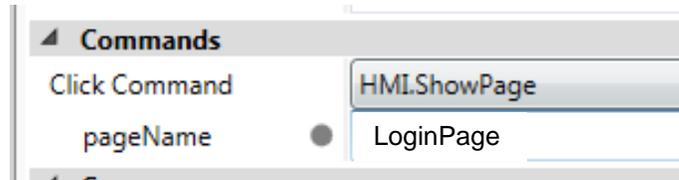
i. On the Main page, add a label to display the current user.



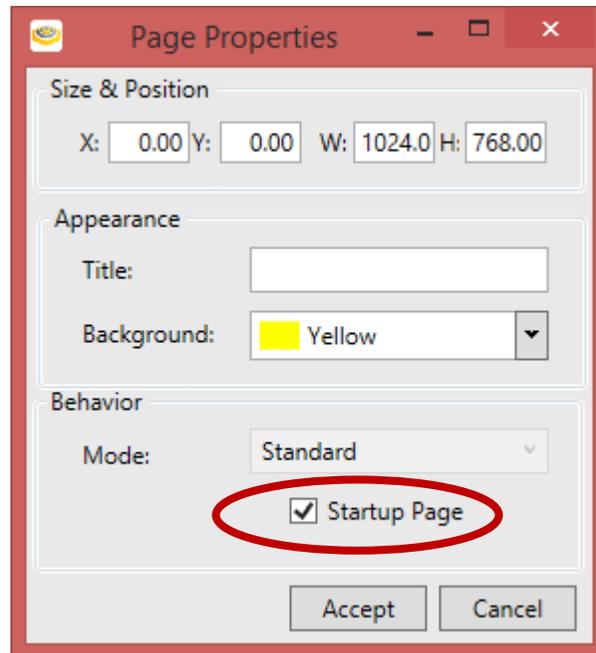
- ii. Also add a button that allows the user to login again



- iii. Use the Click Command Showing the



- iv. Set the login to be the start-up page by going to the page Properties (right-click on page name).



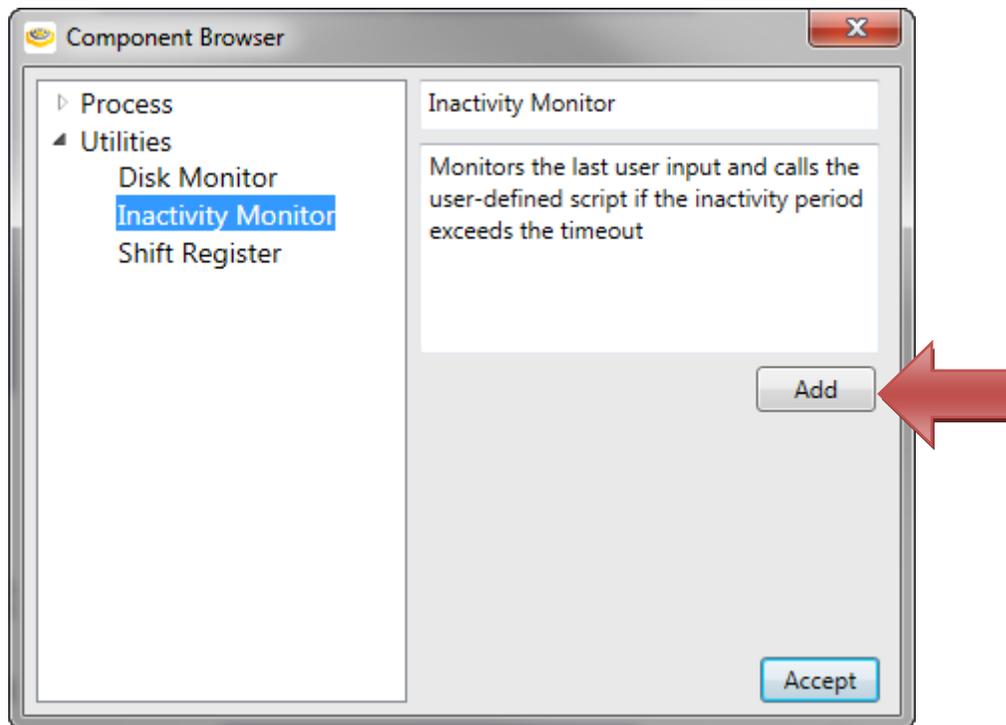
- v. Try it out in Test Mode.



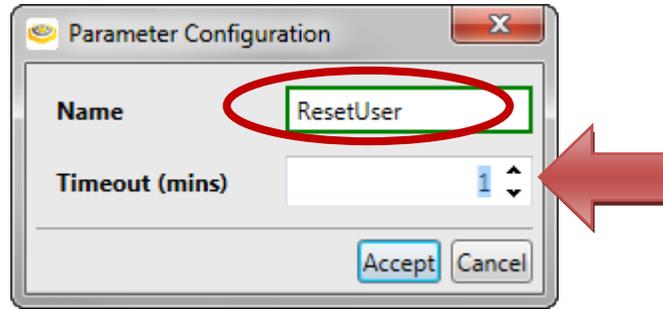
**2. Reset to default user after 1 minute of inactivity**

**a. Add an Inactivity Monitor**

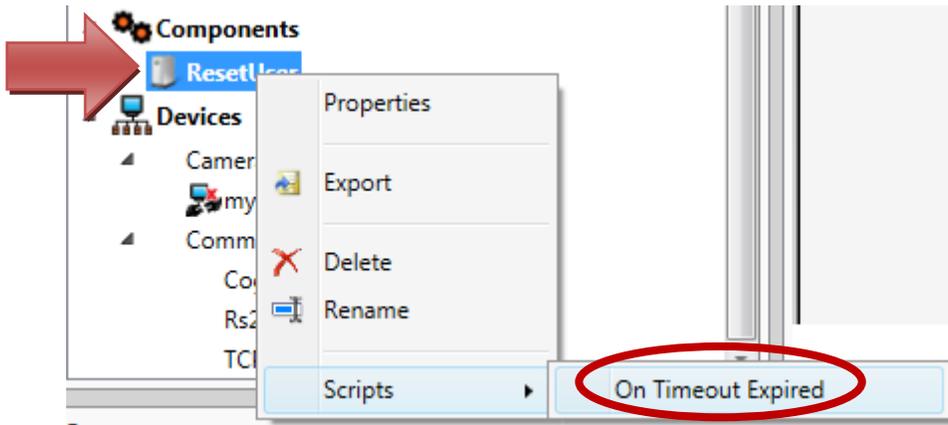
- i. Right-Click on Component and add InactivityMonitor under Utilities.



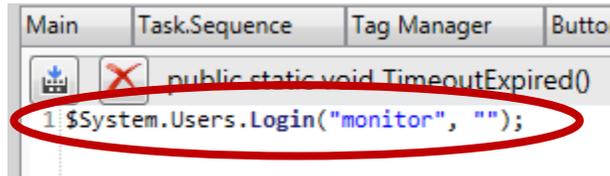
- ii. Name it "ResetUser" and have the Timeout set to 1 minute



- iii. Right-Click on ResetUser and go to the Script -> OnTimeoutExpired

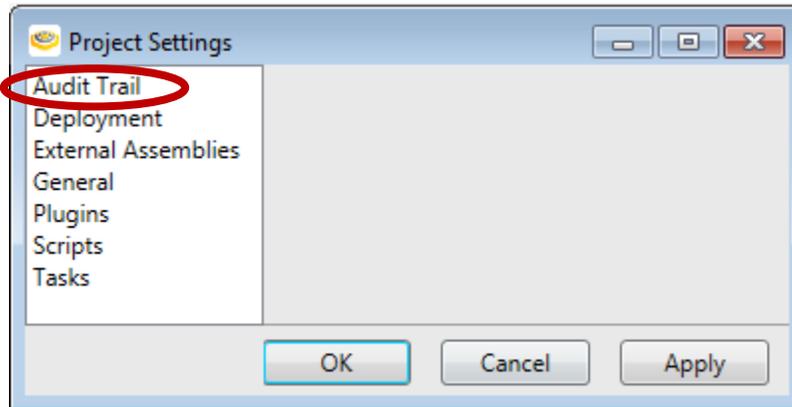


- iv. Add the following line to your script and compile

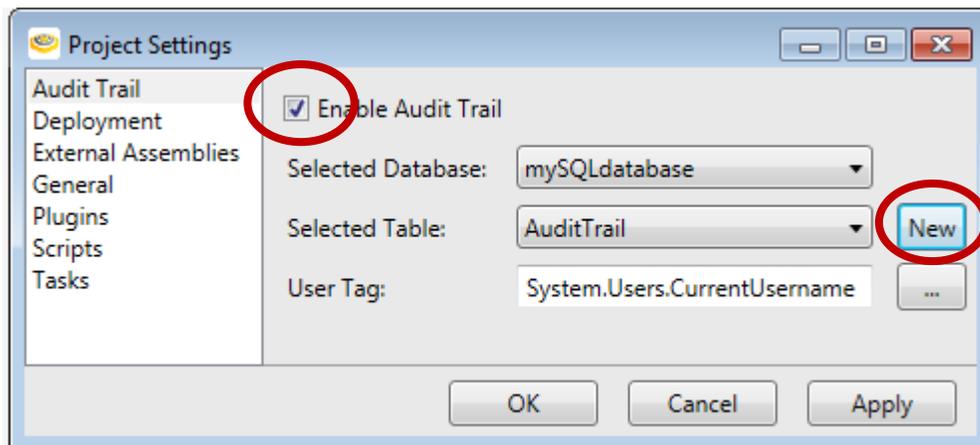


### 3. Add Audit Trail for changes in User Account

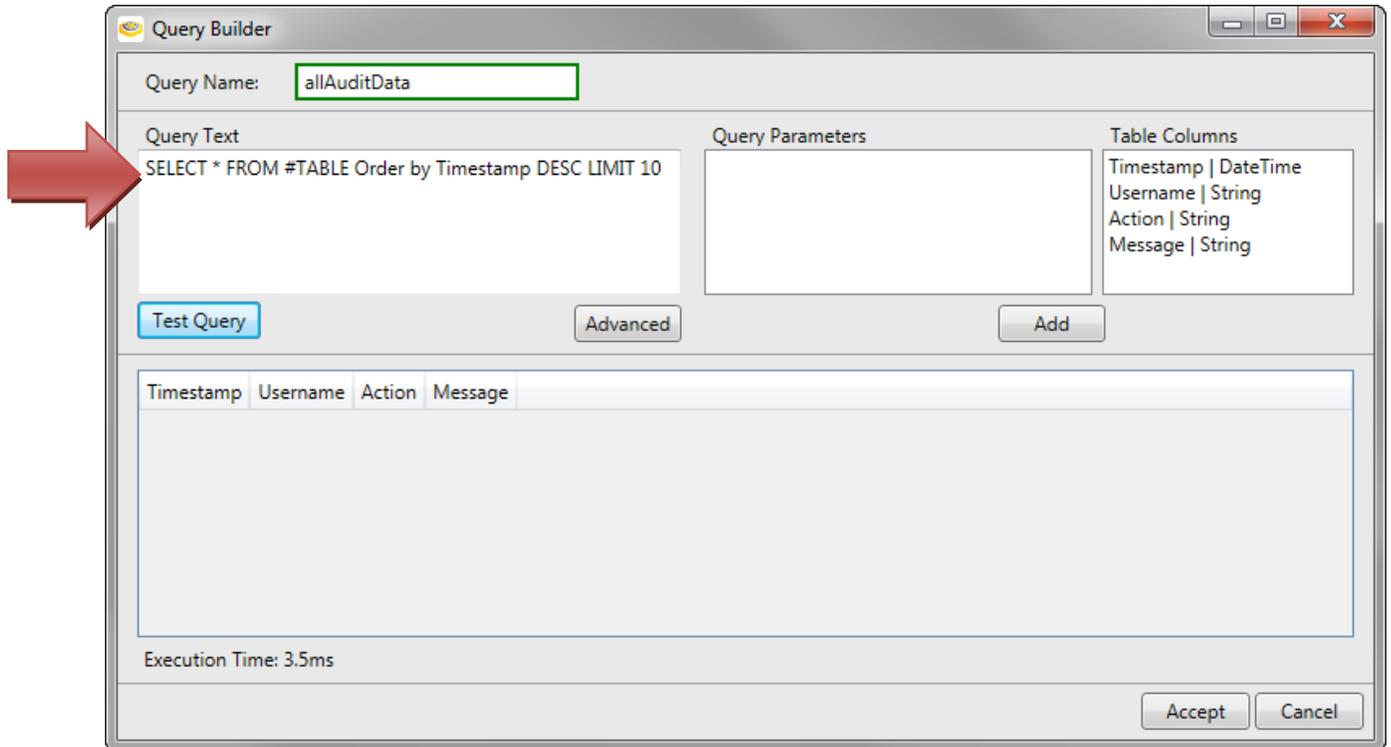
- Go to Settings in the Explorer and choose Audit Trail



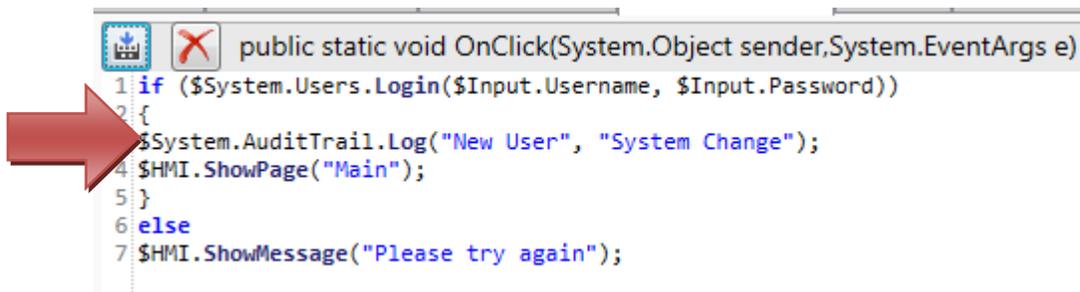
- Enable it and choose “mySQLdatabase” for the Selected Database and select “New” to create “AuditTrail” as the Selected Table.



- Add a query named “allAuditData” to AuditTrail Table that shows all data. Make it limit to 10 and give information from most recent first.



- Go back to the script for the “Login” button on the Login page and add the following to the script – make sure you compile.

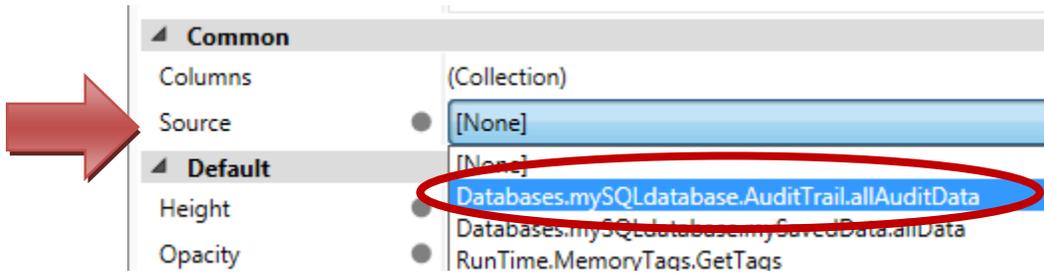


a. Display table on Login Screen

- i. Add a table to the login screen and link it to the AuditTrail query.



Timestamp	Username	Action	Message
2/19/2015 11:19:48 AM	miguel	Logging In	Successful
2/19/2015 11:19:49 AM		Logging Out	Successful
2/19/2015 11:21:13 AM	miguel	Logging In	Successful
2/19/2015 11:21:15 AM	miguel	Logging Out	Successful
2/19/2015 12:03:21 PM	miguel	Logging In	Successful
2/19/2015 1:51:51 PM	miguel	Logging In	Successful
2/19/2015 1:57:22 PM	miguel	Logging In	Successful
2/19/2015 1:57:31 PM	miguel	Logging Out	Successful
2/19/2015 1:57:33 PM	miguel	Logging In	Successful
2/19/2015 2:07:08 PM	miguel	Logging In	Successful
2/19/2015 2:08:41 PM	miguel	Logging In	Successful
2/19/2015 2:22:25 PM	miguel	Logging In	Successful
2/19/2015 2:51:11 PM	miguel	Logging In	Successful
2/19/2015 3:10:02 PM	miguel	Logging In	Successful
2/19/2015 3:50:49 PM	miguel	Logging In	Successful
2/19/2015 3:57:01 PM	miguel	Logging In	Successful
2/19/2015 4:00:03 PM	miguel	Logging In	Successful



- ii. Go into Test Mode and try out the changes

Timestamp	Username	Action	Message
2/19/2015 11:19:48 AM	miguel	Logging In	Successful
2/19/2015 11:19:49 AM		Logging Out	Successful
2/19/2015 11:21:13 AM	miguel	Logging In	Successful
2/19/2015 11:21:15 AM	miguel	Logging Out	Successful
2/19/2015 12:03:21 PM	miguel	Logging In	Successful
2/19/2015 1:51:51 PM	miguel	Logging In	Successful
2/19/2015 1:57:22 PM	miguel	Logging In	Successful
2/19/2015 1:57:31 PM	miguel	Logging Out	Successful
2/19/2015 1:57:33 PM	miguel	Logging In	Successful
2/19/2015 2:07:08 PM	miguel	Logging In	Successful
2/19/2015 2:08:41 PM	miguel	Logging In	Successful
2/19/2015 2:22:25 PM	miguel	Logging In	Successful
2/19/2015 2:51:11 PM	miguel	Logging In	Successful
2/19/2015 3:10:02 PM	miguel	Logging In	Successful
2/19/2015 3:50:49 PM	miguel	Logging In	Successful
2/19/2015 3:57:01 PM	miguel	Logging In	Successful
2/19/2015 4:00:03 PM	miguel	Logging In	Successful

**Challenge: Add Audit Table to a separate page that pops up from a button on the login page. Only certain levels can see the Audit Table.**