

Classless Script Includes

- hasRoleExactly

Lab 8.1A

10-15 minutes

Lab objectives

You will perform the following in this lab:

- Create, test, and debug a classless Script Include to validate if a user has an admin or itil role.

Note: In the baseline, the `gs.hasRole('role')` method returns true for every role as long as the current user has the admin role. In this example, you build a server-side version of the `g_form.hasRoleExactly()` method that returns true or false based on whether the user has the admin or itil role.

A. Create a Classless Script Include

1. Navigate to **System Definition > Script Includes**.
2. Select **New**.
3. Configure the record:

Name: **hasRoleExactly**

Accessible from: **This application scope only**

Description: **Lab 8.1A hasRoleExactly server-side logging**

4. Delete the Script Include template code stub currently in the *Script* field.
5. Examine the pseudo-code for the script:
 - Create a new function that is passed a user's `sys_id` and a role as a string when it is called.
 - Create a new GlideRecord object on the Roles (`sys_user_role`) table.
 - Query for the record of the given role and retrieve the `sys_id` of that role.
 - Create a new GlideRecord object on the User Roles (`sys_user_has_role`) table
 - Query for the record where the user's role assignment is stored, if he/she has the role which we are looking for, using the role's `sys_id` and the user's `sys_id`.

Hint: Examine the table structure of the User Roles table if you are unsure about this.

- If the record is found, meaning the user has the required role and returns true. If no, return false.

6. Write the script:

```
1  function hasRoleExactly(userSysID, roleString) {
2      try {
3
4          var roleGr = new GlideRecord("sys_user_role");
5          if (roleGr.get('name', roleString)) {
6
7              var role = roleGr.getValue('sys_id');
8
9              var gr = new GlideRecord("sys_user_has_role");
10             gr.addQuery("user", userSysID);
11             gr.addQuery("role", role);
12             gr.query();
13             if (gr.next()) {
14                 return true;
15             } else {
16                 return false;
17             }
18         }
19     }
20     catch (error) {
21         gs.error("Error in Script Include hasRoleExactly: " + error);
22     }
23 }
```

7. Select **Submit**.

B. Use the Classless Script Include

1. Create a new Business Rule.

Name: **Lab 8.1A Script Include Logging**

Table: **Incident [incident]**

Active: **Selected (checked)**

Advanced: **Selected (checked)**

When: **after**

Insert: **Selected (checked)**

Update: **Selected (checked)**

Condition: **current.category=='hardware'** (on Advanced tab)

Note: By setting the **Category** to **Hardware** we are ensuring that the Business Rule does not execute on every Incident during testing.

2. Examine the pseudo-code for the script:
 - Call the previously built Script Include two times.
 - Once for the current user and the admin role
 - Once for the current user and the itil role
 - Write and log a debugging statement that logs the results of these two calls in the syslog table.
3. Write the script:

```
1 (function executeRule(current, previous /*null when async*/ ) {  
2   try {  
3  
4     var admin = hasRoleExactly(gs.getUserID(), 'admin');  
5     var itil = hasRoleExactly(gs.getUserID(), 'itil');  
6  
7     var debug = 'User Has Role Admin? ' + admin + ' | User Has Role itil? ' + itil;  
8  
9     gs.info("DEBUG: " + debug);  
10  
11   } catch (error) {  
12     gs.error("Error in Business Rule Lab 8.1A Script Include Logging: " + error);  
13   }  
14  
15 })(current, previous);
```

4. Select **Submit**.

C. Test Your Work

1. Create a new Incident with **Category** as **Hardware** and populate the required fields with values of your choice.
2. Select **Submit**.
3. Open **System Logs > System Log > Script Log Statements**. Do the logging statements display the role information that you expected as a system administrator?
4. Impersonate Beth Anglin and repeat steps 1 and 2.
5. End your impersonation. Repeat step 3. Is the role information the same or different from the previous results? Why might they differ?

6. Make the Lab 8.1A Script Include Logging Business Rule **inactive**.

7. Do you need to make the **hasRoleExactly** Script Include inactive? Why or why not? Is there a performance impact if it remains active? Explain your reasoning:

Lab Completion

Well done! You have successfully created a classless Script Include and called it from a Business Rule!