

# Phase 5: Project Development Phase

ServiceNow Project: Prevent User Deletion if Assigned to an Incident

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## **1. Development Overview**

This phase documents the implementation steps performed in ServiceNow to develop the solution. The development work includes creating test users, assigning roles, creating and assigning incidents, implementing the Business Rule, and validating the final output with screenshots.

## **2. Environment Setup**

<b>Parameter</b>	<b>Value</b>
Platform	ServiceNow
Instance Type	Personal Developer Instance (PDI)
Application Scope	Global
Module Used	Incident Management
Tables Used	sys_user, incident

### 3. Development Steps (with Evidence)

#### Step 1: Create User 1

A new user (User 1) is created in the sys\_user table. This user is later assigned to an incident to test the delete-blocking condition.

The screenshot shows the ServiceNow User creation interface. The User ID is set to 'raju'. The First name is 'Rudraraju' and the Last name is 'Jogi Subrahmanyam Raju'. The Title is empty. The Department is also empty. The Email is 'rudrarajujogisubrahmanyamraju@gmail.com'. The Language is set to '-- None --'. The Calendar integration is set to 'Outlook'. The Time zone is 'System (America/Los\_Angeles)'. The Date format is 'System (yyyy-MM-dd)'. There are empty fields for Business phone and Mobile phone. A 'Photo' field has a placeholder 'Click to add...'. The 'Active' checkbox is checked. The 'Identity type' is set to 'Human'. The 'Internal Integration User' checkbox is unchecked. At the bottom, there are 'Update', 'Set Password', and 'Delete' buttons. Below the main form, under 'Related Links', are links to 'View linked accounts', 'View Subscriptions', and 'Reset a password'. At the very bottom, tabs for 'Entitled Custom Tables', 'Roles (43)', 'Groups (1)', 'Delegates', 'Subscriptions', and 'User Client Certificates' are visible.

#### Step 2: Assign Role to User 1

A role is assigned to User 1. Although roles are not required for the Business Rule logic, it is part of standard ServiceNow user setup.

The screenshot shows the ServiceNow Roles list interface. The table lists various roles with their details:

Role	State	Inherited	Inheritance Count
sn_request_read	Active	true	1
sn_itam_recomm.recommendations_read	Active	true	1
sn_sow.it_agent_dashboard_user	Active	true	1
sn_incident_read	Active	true	1
sn_gd_guidance.guidance_user	Active	true	7
viz_creator	Active	true	1
data_manager_user	Active	true	1
interaction_agent	Active	true	6
cmdb_ms_user	Active	true	1
sn_request_approver_read	Active	true	1
certification	Active	true	1
sn_sow.sow_list	Active	true	5
sn_change_read	Active	true	1

#### Step 3: Create an Incident and Assign to User 1

An incident record is created and assigned to User 1 using the Assigned to field. The incident is set to In Progress to represent an active scenario.

servicenow All Favorites History Admin : Incident - INC0010003 Search

Incident INC0010003

Number: INC0010003

\* Caller: Rudraraju Jogi Subrahmanyam Raji

Category: Inquiry / Help

Subcategory: -- None --

Service:

Service offering:

Configuration item:

\* Short description: Test incident for user deletion validation

Description:

Channel: -- None --

State: In Progress

Impact: 3 - Low

Urgency: 3 - Low

Priority: 5 - Planning

Assignment group:

Assigned to: Rudraraju Jogi Subrahmanyam Raji

Related Search Results >

Notes Related Records Resolution Information

Watch list

Work notes list

Work notes

## Step 4: Create Business Rule (When to run)

A Business Rule is created on the User table (sys\_user) with When = Before and Delete = true.

The screenshot shows the ServiceNow interface for creating a business rule. The title bar says "Business Rule - Prevent User Deletion". The main area has tabs for "Name" (Prevent User Deletion), "Table" (User [sys\_user]), "Application" (Global), "Active" (checked), and "Advanced" (checked). Below these are sections for "When to run", "Actions", and "Advanced". The "When to run" section specifies "When: before" and "Order: 100". It also includes checkboxes for "Insert", "Update", "Delete" (checked), and "Query". Buttons for "Filter Conditions", "Add Filter Condition", and "Add OR Clause" are at the bottom. The "Actions" tab is currently selected.

## Step 5: Add Script Logic in Business Rule

The Business Rule script checks the incident table for any record where assigned\_to matches the current user sys\_id. If found, deletion is blocked.

The screenshot shows the "Advanced" tab of the business rule configuration. It includes a "Condition" field and a "Script" editor. The "Script" editor has a "Turn on ECMAScript 2021 (ES12) mode" toggle. The script code is:

```
1 (function executeRule(current, previous /*null when async*/) {
2     var incGr = new GlideRecord('incident');
3     incGr.addQuery('assigned_to', current.sys_id);
4     incGr.setLimit(1);
5     incGr.query();
6
7     if (incGr.next()) {
8         gs.addErrorMessage('This user cannot be deleted because they are assigned to one or
9             more incidents.');
10        current.setAbortAction(true);
11    }
12
13 })(current, previous);
```

Buttons for "Update" and "Delete" are at the bottom left. A "Related Links" section with "Run Point Scan" is at the bottom right.

## Step 6: Test Deletion for Assigned User (User 1)

When attempting to delete User 1, ServiceNow blocks the deletion and displays an error message. This confirms the rule is working correctly.

The screenshot shows the ServiceNow 'Users' grid interface. At the top, there is a search bar with the placeholder 'Search' and a dropdown menu set to 'Users'. Below the header, a red error message box contains the text: '☒ This user cannot be deleted because they are assigned to one or more incidents.' To the right of the message box is a close button (X). The main grid table has columns: 'User ID', 'Name', 'Email', 'Active', 'Created', and 'Updated'. A single row is visible, representing a user named 'raju2003' with the following details: Name = 'Rudraraju Jogi Subrahmanyam Raju', Email = 'rudrarajujogisubrahmanyamraju@gmail.com', Active = 'true', Created = '2026-02-03 05:02:02', Updated = '2026-02-03 06:50:55'. The bottom of the grid shows navigation buttons for page 1 of 1.

User ID	Name	Email	Active	Created	Updated
raju2003	Rudraraju Jogi Subrahmanyam Raju	rudrarajujogisubrahmanyamraju@gmail.com	true	2026-02-03 05:02:02	2026-02-03 06:50:55

## Step 7: Create User 2 and Test Deletion

A second user (User 2) is created without assigning any incident. Deleting User 2 succeeds normally, confirming that the rule does not block unrelated users.

The screenshot shows the ServiceNow 'Users' grid. At the top, there's a search bar with 'Search' and a 'New' button. Below the header, there are filters for 'User ID', 'Name', 'Email', 'Active', 'Created', and 'Updated'. A single record is listed: 'rajuuser2' with Name 'Raju User2', Email 'rajuuser2@gmail.com', Active status 'true', Created on '2026-02-03 06:30:08', and Updated on '2026-02-03 06:30:08'. At the bottom, there's a navigation bar with icons for back, forward, and search.

## 4. Business Rule Script Used

The following script was implemented in the Business Rule (Advanced) section:

```
var incGr = new GlideRecord('incident');
incGr.addQuery('assigned_to', current.sys_id);
incGr.setLimit(1);
incGr.query();

if (incGr.next()) {
    gs.addErrorMessage('This user cannot be deleted because they are assigned to
one or more incidents.');
    current.setAbortAction(true);
}
```

## 5. Testing Summary

Test Case	Input Condition	Expected Result	Actual Result	Status
TC-01	Delete User 1 (Assigned to <del>Incident</del> )	Deletion should be blocked	Deletion blocked with error message	PASS
TC-02	Delete User 2 (No incident assigned)	Deletion should be allowed	Deletion successful	PASS

## 6. Conclusion

The development phase successfully implemented the required Business Rule and validated the solution using test users and incidents. The final output confirms that the system blocks deletion of users who are assigned to incidents while allowing deletion for users with no incident assignments.