

PREVENT USER DELETION IF ASSIGNED TO AN INCIDENT

PROJECT DESCRIPTION:

In an IT Service Management (ITSM) environment powered by ServiceNow, users play a critical role in handling incidents and ensuring service continuity. However, the current system allows user records to be deleted even if they are actively assigned to ongoing incidents. This creates several challenges, such as:

- Broken data references within the **Incident** table.
- Loss of accountability when incidents no longer show the responsible user.
- Workflow disruptions due to missing assignee details.

The objective of this project is to implement a **safeguard mechanism** that prevents deletion of any user record if they are still assigned to one or more active incidents. The mechanism ensures data integrity, accountability, and smooth ITSM operations by requiring all active incidents to be closed or reassigned before a user can be deleted.

This safeguard will be implemented using **Business Rules**, **GlideRecord API**, and **user/group management practices** within ServiceNow.

Key Features:

1. **Deletion Validation Rule**
 - A **before-delete Business Rule** will be created on the **sys_user** table.
 - The rule will check if the user is currently assigned to any incident records.
2. **Incident Status Check**
 - The rule ensures only **active incidents** (e.g., New, In Progress, On Hold) are considered.
 - Users with only **closed incidents** can be safely deleted.
3. **GlideRecord Query**
 - Utilizes **GlideRecord API** to query the Incident table (incident.assigned_to).
 - Prevents deletion if matching active records exist.
4. **Error Handling and Messaging**
 - Displays a **user-friendly error message** when deletion is blocked (e.g., *"This user cannot be deleted because they are assigned to one or more"*

active incidents.").

5. **Audit and Accountability**

- Ensures that all incidents retain valid assignment references.
- Prevents accidental loss of responsibility tracking.

6. **Extensibility**

- Can be extended to check other related tables (e.g., Change Requests, Problems, Tasks).
- Configurable to align with organizational policies.

Start Building an Instance

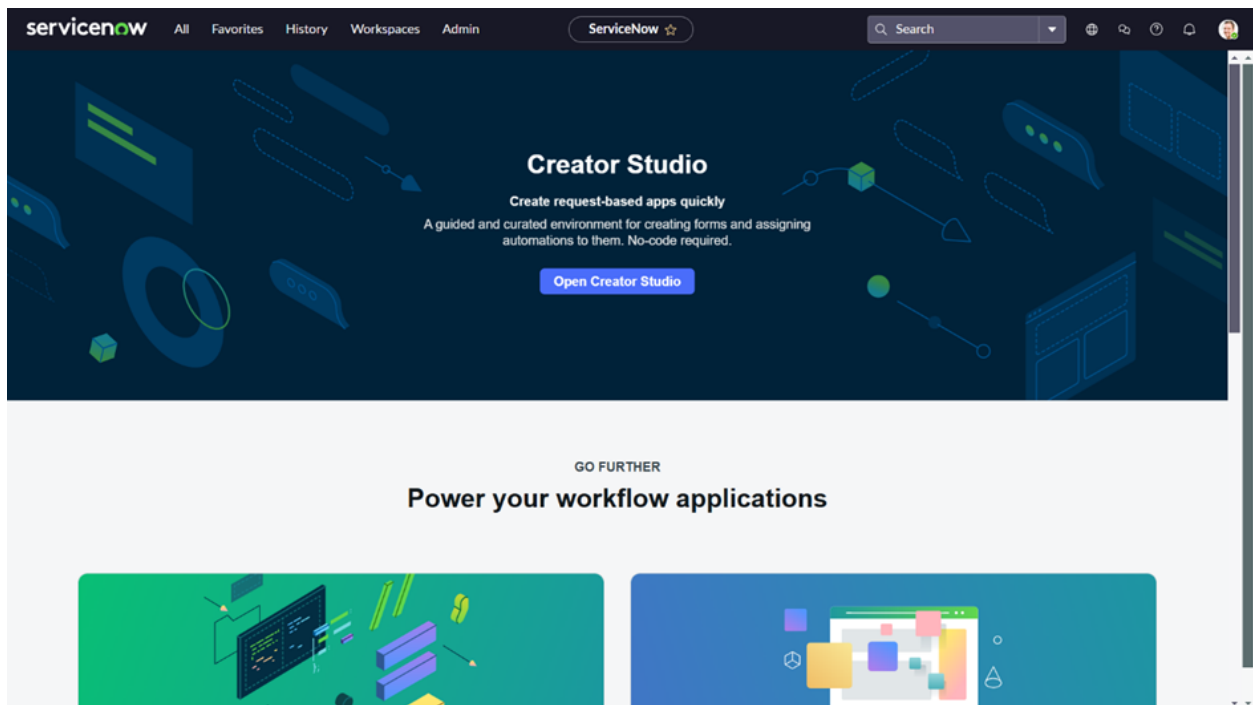
The screenshot shows the ServiceNow Developer portal. At the top is a dark navigation bar with the ServiceNow logo and links for MyNow, Products, Industries, Learning, Support, Partners, and Company. Below this is a secondary navigation bar with 'Developer' and links for Home, Learn, Reference, Guides, and Connect. On the right of the secondary bar are buttons for 'Manage my instance' and 'Start building'. The main content area features a large 'Hello, Aneesha' greeting, a 'Welcome to ServiceNow!' message, and a description of the Now Platform. A prominent 'Start Building' button is visible. To the right is an illustration of three people working on laptops. At the bottom, there's a section for 'Content available for' with options for Zurich, Yokohama (selected), and Xanadu, followed by a 'Learn to build' link.

On the welcome page, click **Start Building**.

Choose an **Instance location** if prompted (for example: Zurich, Yokohama, or the region closest to you).

Click **Request Instance** or **Start Building** again.

Wait while ServiceNow provisions your **personal developer instance** (this may take a minute or two).



user creation

Create Test Users

- 1.Go to ServiceNow ? All ? Users (under System Security)
- 2.Click on New
- 3.Create two users (e.g., Harshika potnuru,Aneesha Boyina)
- 4.Submit and verify user records.

1.Harshika potnuru

servicenow

AllFavoritesHistoryWorkspacesAdmin

User - Harshika Potnuru

Search

UpdateSet PasswordDelete

User IDHarshika

First nameHarshika

Last namePotnuru

Title

Department

Password needs reset

Locked out

Active

Internal Integration User

Emailharshika@example.com

Identity typeHuman

Language-- None --

Calendar integrationOutlook

Time zoneSystem (America/Los_Angeles)

Date formatSystem (yyyy-MM-dd)

Business phone

Mobile phone

PhotoClick to add...

UpdateSet PasswordDelete

Related Links

[View linked accounts](#)

[View Subscriptions](#)

[Reset a password](#)

Entitled Custom TablesRolesGroupsDelegatesSubscriptionsUser Client Certificates

RoleSearch

Edit...

User = Harshika Potnuru

2.Aneesha Boyina

servicenow

AllFavoritesHistoryWorkspacesAdmin

User - Aneesha Boyina

Search

UpdateSet PasswordDelete

User IDAneesha

First nameAneesha

Last nameBoyina

Title

Department

Password needs reset

Locked out

Active

Internal Integration User

Emailaneesha@example.com

Identity typeHuman

Language-- None --

Calendar integrationOutlook

Time zoneSystem (America/Los_Angeles)

Date formatSystem (yyyy-MM-dd)

Business phone

Mobile phone

PhotoClick to add...

UpdateSet PasswordDelete

Related Links

[View linked accounts](#)

[View Subscriptions](#)

[Reset a password](#)

Entitled Custom TablesRoles (43)GroupsDelegatesSubscriptionsUser Client Certificates

RoleSearch

Actions on selected rows...Edit...

User = Aneesha Boyina

Assign Incident to User

Assign Incidents

1. Navigate to the Incident table.
2. Create a new incident and assign it to one of the created users (e.g., Aneesha Boyina)
3. Keep the incident Active = true and State = In Progress.

(To assign any user the user should have at least one role so assigned a role to the user before assigning incident)

The screenshot shows the ServiceNow interface for creating or editing an incident. The top navigation bar includes 'servicenow', 'All', 'Favorites', 'History', 'Workspaces', 'Admin', and a search bar. The incident title is 'Incident - INC0010007'. The form is divided into two main sections: 'Incident' and 'Assignment'. The 'Incident' section includes fields for Number (INC0010007), Caller (System Administrator), Category (Inquiry / Help), Subcategory (-- None --), Service, Service offering, Configuration item, Short description (test incident), and Description. The 'Assignment' section includes fields for Channel (-- None --), State (In Progress), Impact (3 - Low), Urgency (3 - Low), Priority (5 - Planning), Assignment group, and Assigned to (Aneesha Boyina). Below the form is a 'Related Search Results' section. At the bottom, there are tabs for 'Notes', 'Related Records', and 'Resolution Information', and a 'Work notes' section.

Business Rule Creation

Create Business Rule

1. Go to System Definition ? Business Rules
2. Click on New
3. Fill in:
4. Name: Prevent User Deletion if Assigned to an Incident

5. Table: sys_user
6. When: Before
7. Delete: Checked
8. Script:

```
(function executeRule(current,previous /*null when async*/) {
```

```
var incGr = new GlideRecord('incident');
```

```
incGr.addQuery('assigned_to',current.sys_id);
```

```
incGr.setLimit(1); // Just need to check existence
```

```
    // incGr.addQuery('active',true); we can use the above or this line of code to  
    check where the user is assigned with any incident
```

```
    incGr.query();
```

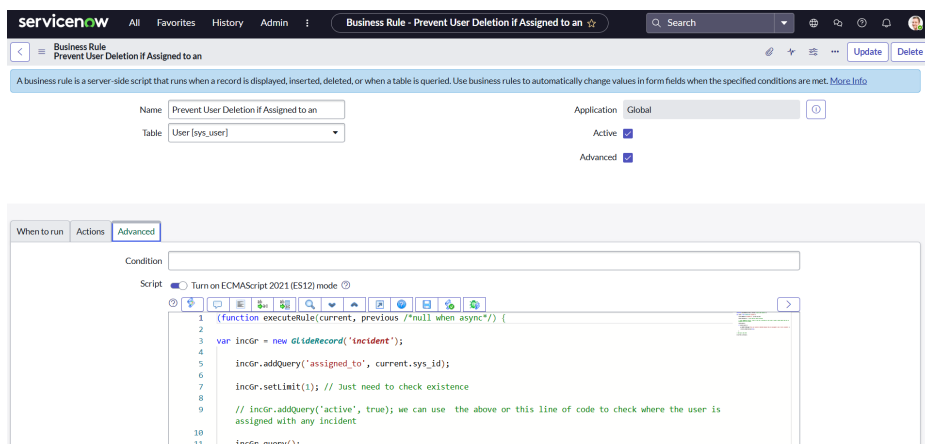
```
    if (incGr.next()) {
```

```
        gs.addErrorMessage("This user cannot be deleted because they are assigned  
to one or more incidents.");
```

```
        current.setAbortAction(true);}

// Add your code here

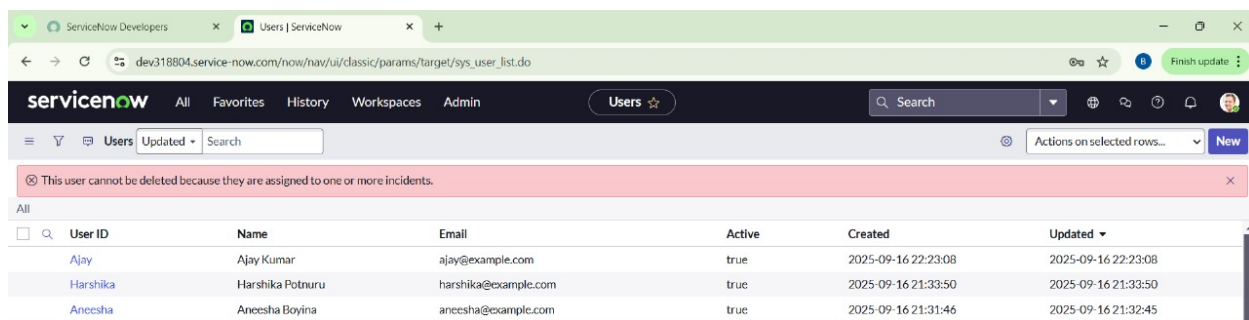
})(current,previous);
```



Test Deletion

Attempt to Delete Assigned User

1. Go to the user record (Aneesha Boyina)
2. Click Delete
3. Verify that deletion is blocked with an error message



ServiceNow Developers | Users | ServiceNow | dev318804.service-now.com/now/nav/ui/classic/params/target/sys_user_list.do

servicenow | All | Favorites | History | Workspaces | Admin | Users ☆ | Search | Actions on selected rows... | New

⚠ This user cannot be deleted because they are assigned to one or more incidents.

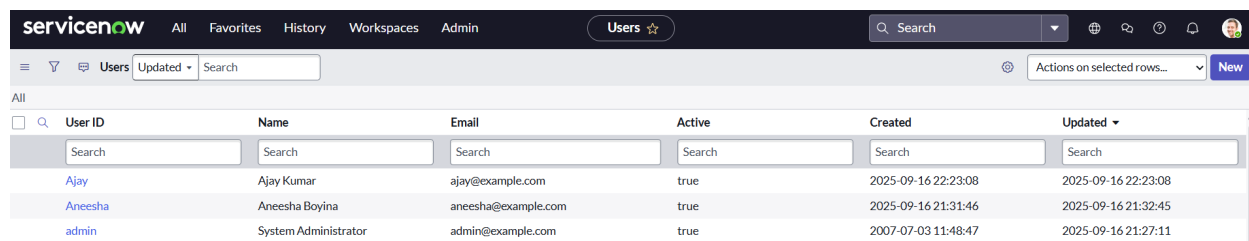
All

<input type="checkbox"/>	User ID	Name	Email	Active	Created	Updated
<input type="checkbox"/>	Ajay	Ajay Kumar	ajay@example.com	true	2025-09-16 22:23:08	2025-09-16 22:23:08
<input type="checkbox"/>	Harshika	Harshika Potnuru	harshika@example.com	true	2025-09-16 21:33:50	2025-09-16 21:33:50
<input type="checkbox"/>	Aneesha	Aneesha Boyina	aneesha@example.com	true	2025-09-16 21:31:46	2025-09-16 21:32:45

Test with unassigned User

Attempt to Delete Unused User

1. Try deleting the second user (Harshika potnuru) who is not assigned to any active incidents.
2. Deletion should succeed.



servicenow | All | Favorites | History | Workspaces | Admin | Users ☆ | Search | Actions on selected rows... | New

All

<input type="checkbox"/>	User ID	Name	Email	Active	Created	Updated
<input type="checkbox"/>	Ajay	Ajay Kumar	ajay@example.com	true	2025-09-16 22:23:08	2025-09-16 22:23:08
<input type="checkbox"/>	Aneesha	Aneesha Boyina	aneesha@example.com	true	2025-09-16 21:31:46	2025-09-16 21:32:45
<input type="checkbox"/>	admin	System Administrator	admin@example.com	true	2007-07-03 11:48:47	2025-09-16 21:27:11

Conclusion

The implementation of the **Prevent User Deletion if Assigned to an Incident** safeguard in ServiceNow ensures greater reliability, accountability, and continuity within IT Service Management processes. By leveraging **Business Rules, GlideRecord queries, and user management controls**, the solution prevents accidental or unauthorized deletion of users who are still actively responsible for incident resolution.

This project not only enhances **data integrity** by maintaining valid references between users and incidents but also ensures **operational efficiency** by avoiding disruptions in service workflows. Furthermore, it strengthens compliance with IT governance standards and provides a scalable foundation that can be extended to other ITSM modules, such as Change and Problem Management.

In summary, this solution provides a **robust safeguard** that supports organizational accountability, minimizes service risks, and upholds best practices in ServiceNow application development.