

# PROJECT DESIGN

## a) proposed solution

Sno	Parameters	Description
1	Problem statement	In the current system, users can be deleted without checking whether they are actively assigned to ongoing incidents.
2	Idea	The idea is to enhance data integrity and operational reliability by adding a validation rule that checks if a user is linked to any open or historical incidents before allowing deletion.
3	Novelty	The novelty of this idea lies in introducing intelligent dependency checks before allowing user deletion—going beyond traditional user management.
4	Social Impact	Ensures every incident retains a clear record of who was responsible. This promotes a culture of ownership and responsibility, which is vital for building trust within teams and with stakeholders.
5	Business Model	The business model for this idea focuses on delivering value through system integrity, risk reduction, and operational efficiency.
6	Scalability of solution	The solution is highly scalable and adaptable across various organizational sizes, ITSM platforms, and incident management frameworks.

**Prevent user deletion if assigned to an incident**

**MILESTONE-1** : user creation

**PURPOSE** : The primary purpose of creating a test user account is to prevent accidental deletion or modification of critical data, especially when that user is associated with an active incident or task. By designating a separate test user, you ensure that routine operations, such as user deletion, don't inadvertently disrupt ongoing investigations or processes.

**USES** : To prevent the accidental deletion of users, particularly in a system where user accounts are linked to critical incidents, a combination of strategies is recommended. These include implementing robust access controls, using "soft deletes" or archival systems, and leveraging testing and validation processes. Testing should be integrated throughout the system lifecycle, including creating test users to simulate real-world scenarios and identify potential vulnerabilities before they impact live data.

**ACTIVITY-1** : create test users

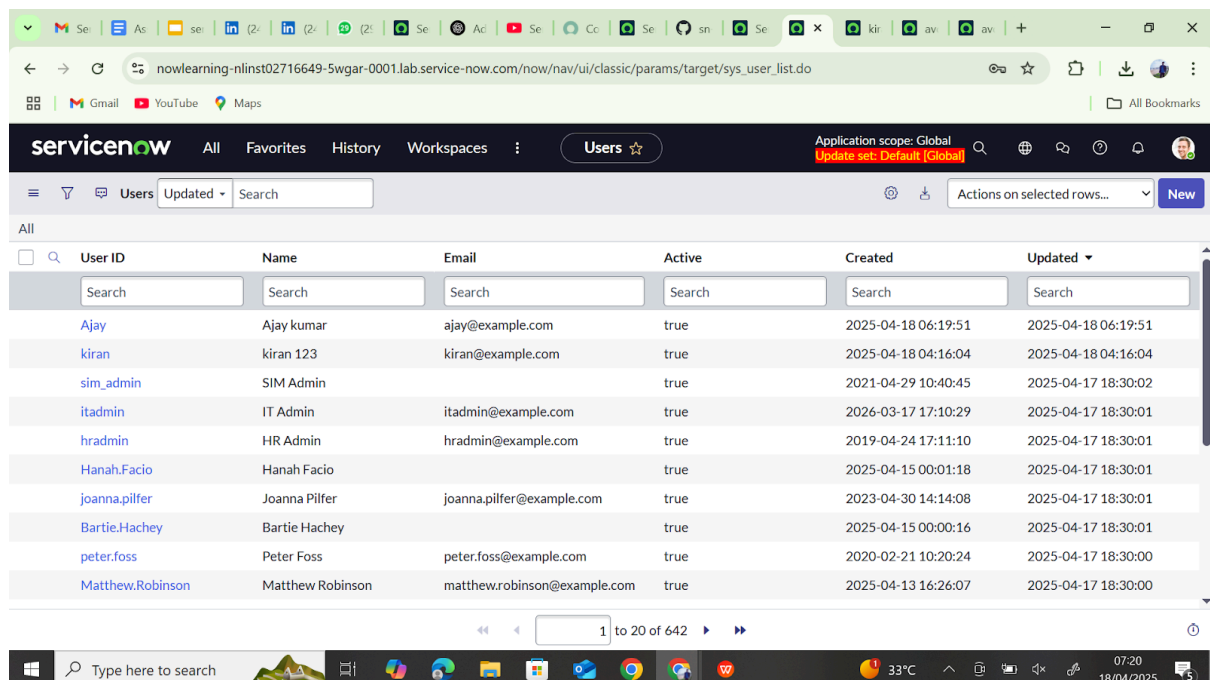
**STEPS** :

Go to ServiceNow ? All ? Users (under System Security)

Click on New

Create two users (e.g., kiran123,ajaykumar)

Submit and verify user records.



User ID	Name	Email	Active	Created	Updated
Ajay	Ajay kumar	ajay@example.com	true	2025-04-18 06:19:51	2025-04-18 06:19:51
kiran	kiran 123	kiran@example.com	true	2025-04-18 04:16:04	2025-04-18 04:16:04
sim_admin	SIM Admin		true	2021-04-29 10:40:45	2025-04-17 18:30:02
itadmin	IT Admin	itadmin@example.com	true	2026-03-17 17:10:29	2025-04-17 18:30:01
hradmin	HR Admin	hradmin@example.com	true	2019-04-24 17:11:10	2025-04-17 18:30:01
Hanah.Facio	Hanah Facio		true	2025-04-15 00:01:18	2025-04-17 18:30:01
joanna.pilfer	Joanna Pilfer	joanna.pilfer@example.com	true	2023-04-30 14:14:08	2025-04-17 18:30:01
Bartie.Hachey	Bartie Hachey		true	2025-04-15 00:00:16	2025-04-17 18:30:01
peter.foss	Peter Foss	peter.foss@example.com	true	2020-02-21 10:20:24	2025-04-17 18:30:00
Matthew.Robinson	Matthew Robinson	matthew.robinson@example.com	true	2025-04-13 16:26:07	2025-04-17 18:30:00

**MILESTONE-2** : Assign incident to user

**PURPOSE** : Assigning incidents in an efficient manner prevents user deletion by ensuring that the appropriate personnel are notified and involved in the resolution process,

thereby avoiding unnecessary or accidental deletion of incidents. This process also helps in tracking the incident's lifecycle and ensuring that all necessary actions are taken to resolve it.

**USES** : Assigning incidents efficiently prevents user deletion by ensuring that only authorized personnel can take action on critical incidents, thus mitigating the risk of accidental or malicious deletion. This structured approach to incident management, with clearly defined roles and responsibilities, also allows for better tracking, accountability, and timely resolution.

**ACTIVITY-1** : Assign incidents

**Steps** :

Navigate to the Incident table.

Create a new incident and assign it to one of the created users (e.g., kiran123)

Keep the incident Active = true and State = In Progress

The screenshot shows the ServiceNow web interface for creating or editing an incident. The browser address bar shows the URL: `nowlearning-nlinst02716649-5wgar-0001.lab.service-now.com/now/nav/ui/classic/params/target/incident.do%3Fsys_id%3D566f402483012...`. The ServiceNow header includes the logo, navigation tabs (All, Favorites, History), and the incident title "Incident - INC0010001". The form fields are organized into two columns. The left column contains: "Number" (INC0010001), "Caller" (System Administrator), "Category" (Inquiry / Help), "Subcategory" (-- None --), "Service" (empty), "Service offering" (empty), "Configuration item" (empty), "Short description" (test incident), and "Description" (empty). The right column contains: "Channel" (-- None --), "State" (In Progress), "Impact" (3 - Low), "Urgency" (3 - Low), "Priority" (5 - Planning), "Assignment group" (empty), and "Assigned to" (kiran 123). At the bottom of the form is a "Related Search Results" button. The Windows taskbar at the bottom shows the date and time as 07:30 on 18/04/2025.

**Note:** To assign any user the user should have at least one role so assigned a role to the user before assigning incident

**MILESTONE-3** : Business rule creation

**PURPOSE** : The primary purpose of creating a business rule to prevent user deletion when assigned to an incident is to maintain data integrity and avoid orphaned records. This

ensures that critical information related to incidents remains associated with active users and prevents issues like broken links or inaccurate reporting.

**Uses** : Business rules can be effectively used to prevent the deletion of users who are currently assigned to active incidents. This ensures data integrity and prevents orphaned incident records. By creating a "before delete" business rule on the user table, you can check if the user is linked to any open incidents. If a user is found to be assigned to an active incident, the deletion can be prevented, and an informative message can be displayed to the user attempting the deletion.

**ACTIVITY-1** : Create business rules

**Steps** :

Go to System Definition ? Business Rules

Click on New

Fill in:

Name: Prevent User Deletion if Assigned to an Incident

Table: sys\_user

When: Before

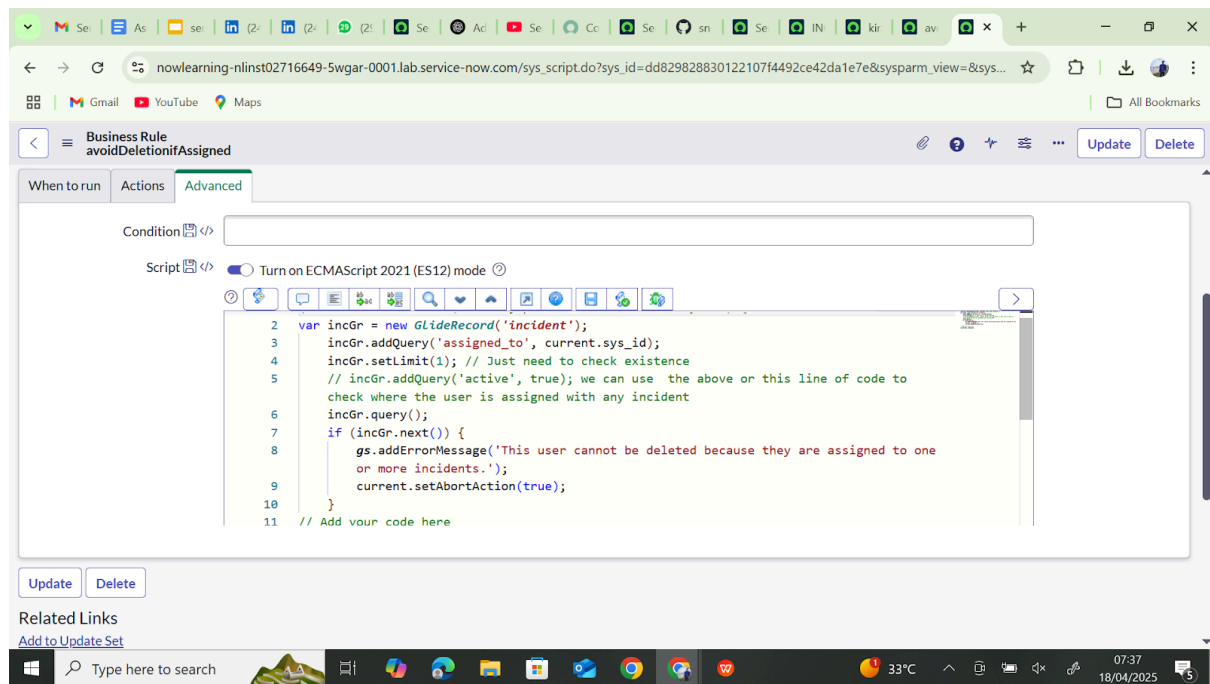
Delete: Checked

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.');
```

// Add your code here

```
  }  
  current.setAbortAction(true);  
})(current, previous);
```



9. Click Submit

#### MILESTONE-4 : Test deletion

**ACTIVITY-1** : Attempt to delete assigned user

**PURPOSE** : The purpose of preventing user deletion when assigned to an incident is to ensure data integrity and prevent the loss of crucial information related to the incident. If a user is associated with an incident, deleting that user could lead to incomplete or inaccessible data, making it difficult to track the incident's history, analyze its cause, or fulfill audit requirements.

**Uses** : In incident management systems, test deletion functionality is crucial for ensuring that users cannot accidentally delete incidents, especially when those incidents are actively being worked on. This prevents data loss and disruption to incident resolution processes.

**ACTIVITY-1** : Attempt to delete assigned user

**Steps** :

Go to the user record (kiran123)

Click Delete

Verify that deletion is blocked with an error message

**servicenow** All Favorites History Workspaces Users Application scope: Global Update set: Default (Global)

Users Updated Search Actions on selected rows... New

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

All

User ID	Name	Email	Active	Created	Updated
<a href="#">kiran</a>	kiran 123	kiran@example.com	true	2025-04-18 04:16:04	2025-04-18 04:16:04
<a href="#">sim_admin</a>	SIM Admin		true	2021-04-29 10:40:45	2025-04-17 18:30:02
<input type="checkbox"/> <a href="#">itadmin</a>	IT Admin	itadmin@example.com	true	2026-03-17 17:10:29	2025-04-17 18:30:01
<a href="#">hradmin</a>	HR Admin	hradmin@example.com	true	2019-04-24 17:11:10	2025-04-17 18:30:01
<a href="#">Hanah.Facio</a>	Hanah Facio		true	2025-04-15 00:01:18	2025-04-17 18:30:01
<a href="#">joanna.pilfer</a>	Joanna Pilfer	joanna.pilfer@example.com	true	2023-04-30 14:14:08	2025-04-17 18:30:01
<a href="#">Bartie.Hachey</a>	Bartie Hachey		true	2025-04-15 00:00:16	2025-04-17 18:30:01
<a href="#">peter.foss</a>	Peter Foss	peter.foss@example.com	true	2020-02-21 10:20:24	2025-04-17 18:30:00
<a href="#">Matthew.Robinson</a>	Matthew Robinson	matthew.robinson@example.com	true	2025-04-13 16:26:07	2025-04-17 18:30:00

1 to 20 of 641

Type here to search 29°C 05:39 18/04/2025

**MILESTONE-5** : Test with unassigned user

**PURPOSE** : The test, attempting to delete a user who is assigned to an incident, is designed to verify that the system prevents the deletion of users who are actively involved in ongoing incidents. This prevents data loss, ensures incident continuity, and maintains system integrity.

**Uses** : To prevent the deletion of a user who is currently assigned to an incident, a system should implement a check before allowing deletion. This check verifies if the user is associated with any open incidents. If they are, the deletion should be prevented, and an appropriate message or notification should be displayed to the user attempting the deletion.

**ACTIVITY** : Attempt to delete unused user

**Steps** :

Try deleting the second user (Ajaykumar) who is not assigned to any active incidents. Deletion should succeed.

Se: | As | se: | (2: | (2: | Se: | Ac | Se | Cc | sn | Se | kir | av | av | +

nowlearning-nlinst02716649-5wgar-0001.lab.service-now.com/now/nav/ui/classic/params/target/sys\_user\_list.do

Gmail | YouTube | Maps | All Bookmarks

servicenow

All | Favorites | History | Workspaces | Users

Application scope: Global  
Update set: Default (Global)

Users

Updated

Search

Actions on selected rows...

New

All

<input type="checkbox"/>	User ID	Name	Email	Active	Created	Updated
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	kiran	kiran 123	kiran@example.com	true	2025-04-18 04:16:04	2025-04-18 04:16:04
	sim_admin	SIM Admin		true	2021-04-29 10:40:45	2025-04-17 18:30:02
<input type="checkbox"/>	itadmin	IT Admin	itadmin@example.com	true	2026-03-17 17:10:29	2025-04-17 18:30:01
	hradmin	HR Admin	hradmin@example.com	true	2019-04-24 17:11:10	2025-04-17 18:30:01
	Hanah.Facio	Hanah Facio		true	2025-04-15 00:01:18	2025-04-17 18:30:01
	joanna.pilfer	Joanna Pilfer	joanna.pilfer@example.com	true	2023-04-30 14:14:08	2025-04-17 18:30:01
	Bartie.Hachey	Bartie Hachey		true	2025-04-15 00:00:16	2025-04-17 18:30:01
	peter.foss	Peter Foss	peter.foss@example.com	true	2020-02-21 10:20:24	2025-04-17 18:30:00
	Matthew.Robinson	Matthew Robinson	matthew.robinson@example.com	true	2025-04-13 16:26:07	2025-04-17 18:30:00
	Athena.Cantu	Athena Cantu		true	2025-04-14 23:53:36	2025-04-17 18:30:00

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07:48  
18/04/2025