Prevent User Deletion if Assigned to an Incident

Category: ServiceNow Application Developer

Skills Required:

Script, Business Rules, Glide Records and APIs, User and Group Management
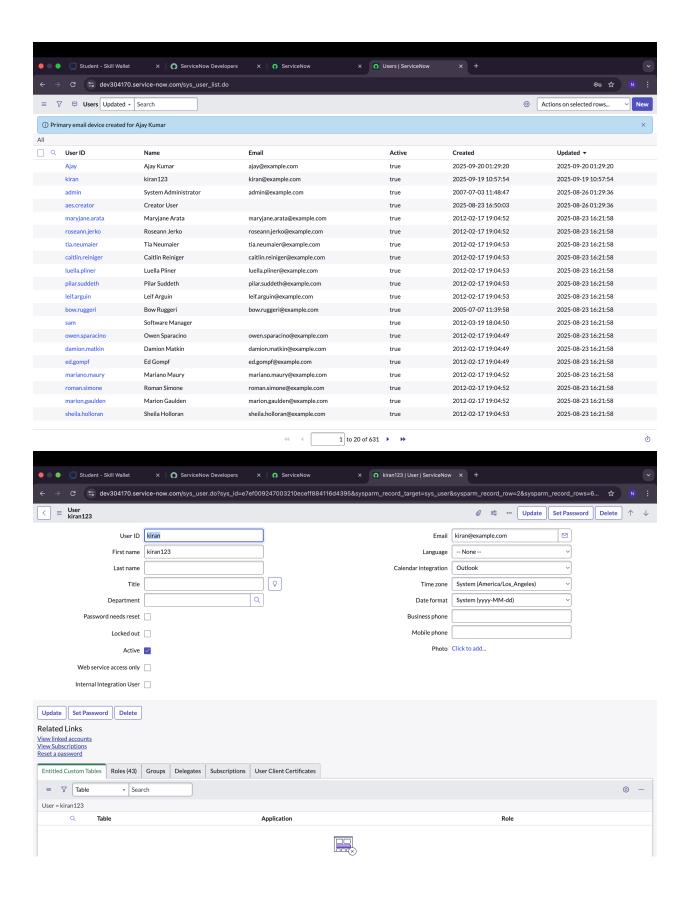
Problem Statement:

In an IT Service Management environment, users are frequently assigned to incidents for issue resolution and tracking. However, the current system lacks a validation mechanism to prevent the deletion of a user who is still actively assigned to incidents. This can lead to broken data references, loss of accountability, and disruption in workflow continuity.
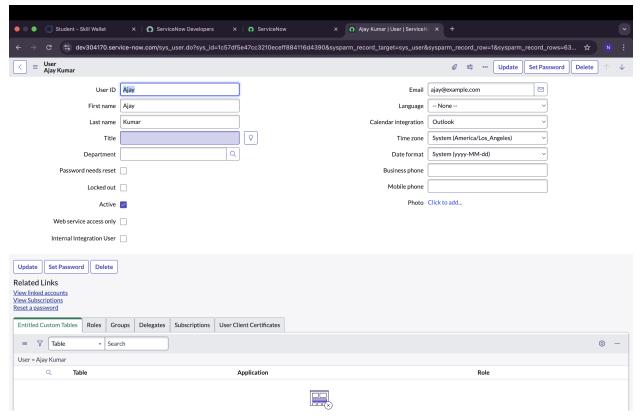There is a need to implement a safeguard that prevents such deletions unless all assigned incidents are closed or reassigned.

User Creation

Create Test Users

1. Go to ServiceNow >> All >> Users (under System Security)
2. Click on New
3. Create two users (e.g., kiran123,ajaykumar)
4. Submit and verify user records.

☰ ▽ 💬 Users | Updated ▾ | Search | ⚙ | Actions on selected rows... ▾ | New

ⓘ Primary email device created for Ajay Kumar   ✕

All

☐ 🔍	User ID	Name	Email	Active	Created	Updated ▾
	Ajay	Ajay Kumar	ajay@example.com	true	2025-09-20 01:29:20	2025-09-20 01:29:20
	kiran	kiran123	kiran@example.com	true	2025-09-19 10:57:54	2025-09-19 10:57:54
	admin	System Administrator	admin@example.com	true	2007-07-03 11:48:47	2025-08-26 01:29:36
	aes.creator	Creator User		true	2025-08-23 16:50:03	2025-08-26 01:29:36
	maryjane.arata	Maryjane Arata	maryjane.arata@example.com	true	2012-02-17 19:04:52	2025-08-23 16:21:58
	roseann.jerko	Roseann Jerko	roseann.jerko@example.com	true	2012-02-17 19:04:52	2025-08-23 16:21:58
	tia.neumaier	Tia Neumaier	tia.neumaier@example.com	true	2012-02-17 19:04:53	2025-08-23 16:21:58
	caitlin.reiniger	Caitlin Reiniger	caitlin.reiniger@example.com	true	2012-02-17 19:04:53	2025-08-23 16:21:58
	luella.pliner	Luella Pliner	luella.pliner@example.com	true	2012-02-17 19:04:53	2025-08-23 16:21:58
	pilar.suddeth	Pilar Suddeth	pilar.suddeth@example.com	true	2012-02-17 19:04:53	2025-08-23 16:21:58
	leif.arguin	Leif Arguin	leif.arguin@example.com	true	2012-02-17 19:04:53	2025-08-23 16:21:58
	bow.ruggeri	Bow Ruggeri	bow.ruggeri@example.com	true	2005-07-07 11:39:58	2025-08-23 16:21:58
	sam	Software Manager		true	2012-03-19 18:04:50	2025-08-23 16:21:58
	owen.sparacino	Owen Sparacino	owen.sparacino@example.com	true	2012-02-17 19:04:49	2025-08-23 16:21:58
	damion.matkin	Damion Matkin	damion.matkin@example.com	true	2012-02-17 19:04:49	2025-08-23 16:21:58
	ed.gompf	Ed Gompf	ed.gompf@example.com	true	2012-02-17 19:04:49	2025-08-23 16:21:58
	mariano.maury	Mariano Maury	mariano.maury@example.com	true	2012-02-17 19:04:52	2025-08-23 16:21:58
	roman.simone	Roman Simone	roman.simone@example.com	true	2012-02-17 19:04:52	2025-08-23 16:21:58
	marion.gaulden	Marion Gaulden	marion.gaulden@example.com	true	2012-02-17 19:04:52	2025-08-23 16:21:58
	sheila.holloran	Sheila Holloran	sheila.holloran@example.com	true	2012-02-17 19:04:53	2025-08-23 16:21:58

⏮ ◀ | 1 | to 20 of 631 ▶ ⏭   ⓘ

‹ ☰ User
      kiran123   📎 ⚙ ⋯ | Update | Set Password | Delete | ↑ ↓

User ID	kiran		Email	kiran@example.com ✉
First name	kiran123		Language	-- None -- ▾
Last name			Calendar integration	Outlook ▾
Title		💡	Time zone	System (America/Los_Angeles) ▾
Department		🔍	Date format	System (yyyy-MM-dd) ▾
Password needs reset	☐		Business phone	
Locked out	☐		Mobile phone	
Active	☑		Photo	Click to add...
Web service access only	☐			
Internal Integration User	☐			

| Update | Set Password | Delete |

Related Links

View linked accounts
View Subscriptions
Reset a password

| Entitled Custom Tables | Roles (43) | Groups | Delegates | Subscriptions | User Client Certificates |

☰ ▽ | Table ▾ | Search | ⚙ —

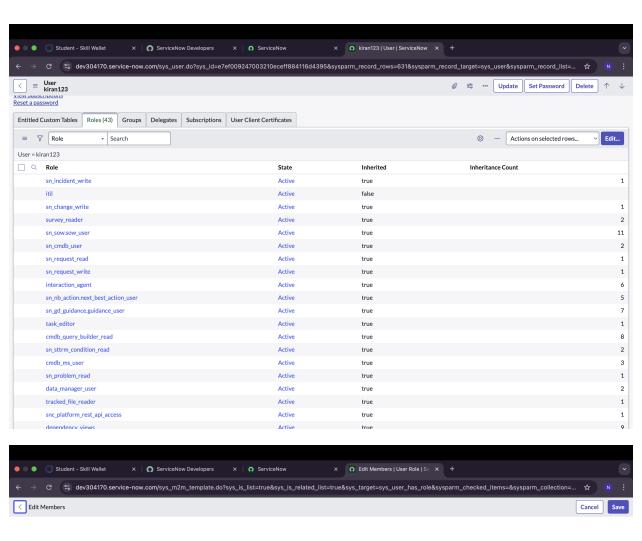User = kiran123

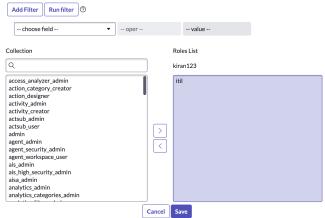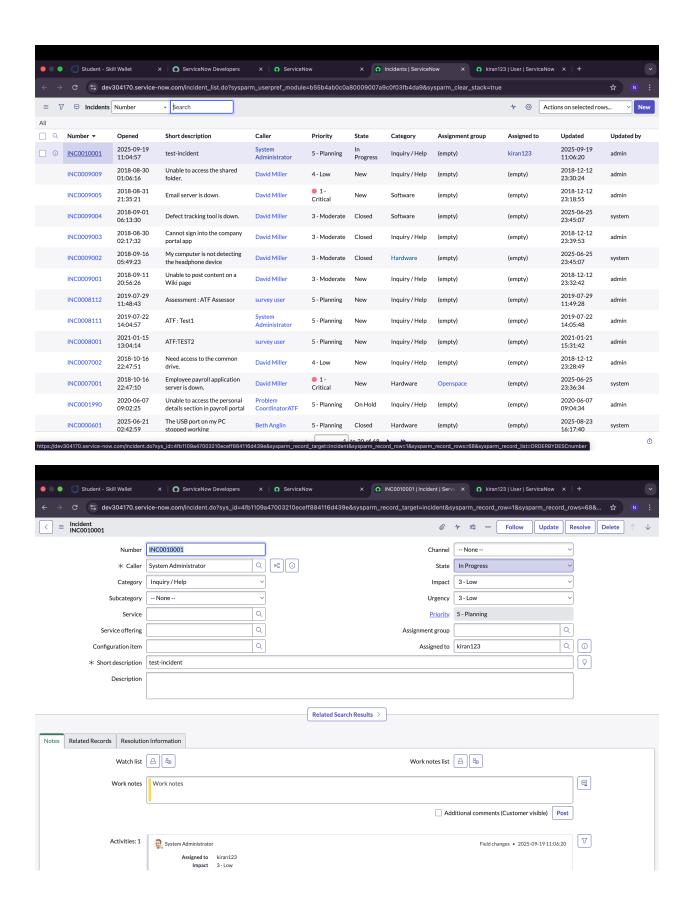| 🔍	Table	Application	Role

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., kiran123)
3. Keep the incident Active = true and State = In Progress

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

● ● ● | Student - Skill Wallet ✕ | 🔵 ServiceNow Developers ✕ | 🔵 ServiceNow ✕ | 🔵 kiran123 | User | ServiceNow ✕ | +

◁ ▷ ↻   🔒 dev304170.service-now.com/sys_user.do?sys_id=e7ef009247003210eceff884116d4395&sysparm_record_rows=631&sysparm_record_target=sys_user&sysparm_record_list=... ☆ Ⓝ ⋮

◁ ≡ **User**
    kiran123

📎 ⚙ ⋯   [Update] [Set Password] [Delete] ↑ ↓

View Subscriptions
Reset a password

| Entitled Custom Tables | Roles (43) | Groups | Delegates | Subscriptions | User Client Certificates |

≡ ▽ | Role ▾ | Search   ⚙ — | Actions on selected rows... ▾ | Edit...

User = kiran123

☐ 🔍	Role	State	Inherited	Inheritance Count
	sn_incident_write	Active	true	1
	itil	Active	false	
	sn_change_write	Active	true	1
	survey_reader	Active	true	2
	sn_sow.sow_user	Active	true	11
	sn_cmdb_user	Active	true	2
	sn_request_read	Active	true	1
	sn_request_write	Active	true	1
	interaction_agent	Active	true	6
	sn_nb_action.next_best_action_user	Active	true	5
	sn_gd_guidance.guidance_user	Active	true	7
	task_editor	Active	true	1
	cmdb_query_builder_read	Active	true	8
	sn_sttrm_condition_read	Active	true	2
	cmdb_ms_user	Active	true	3
	sn_problem_read	Active	true	1
	data_manager_user	Active	true	2
	tracked_file_reader	Active	true	1
	snc_platform_rest_api_access	Active	true	1
	dependency_views	Active	true	9

● ● ● | Student - Skill Wallet ✕ | 🔵 ServiceNow Developers ✕ | 🔵 ServiceNow ✕ | 🔵 Edit Members | User Role | S ✕ | +

◁ ▷ ↻   🔒 dev304170.service-now.com/sys_m2m_template.do?sys_is_list=true&sys_is_related_list=true&sys_target=sys_user_has_role&sysparm_checked_items=&sysparm_collection=... ☆ Ⓝ ⋮

◁ **Edit Members**   [Cancel] [Save]

[Add Filter] [Run filter] ⓘ

| -- choose field -- ▾ | -- oper -- | -- value -- |

Collection

🔍 [   ]

Roles List

kiran123

| access_analyzer_admin |
| action_category_creator |
| action_designer |
| activity_admin |
| activity_creator |
| actsub_admin |
| actsub_user |
| admin |
| agent_admin |
| agent_security_admin |
| agent_workspace_user |
| ais_admin |
| ais_high_security_admin |
| aisa_admin |
| analytics_admin |
| analytics_categories_admin |

❯
❮

itil

[Cancel] [Save]

⏻

Incidents List (Browser: Incidents | ServiceNow)

URL: dev304170.service-now.com/incident_list.do?sysparm_userpref_module=b55b4ab0c0a80009007a9c0f03fb4da9&sysparm_clear_stack=true

Incidents — Number — Search

All

	Number	Opened	Short description	Caller	Priority	State	Category	Assignment group	Assigned to	Updated	Updated by
	INC0010001	2025-09-19 11:04:57	test-incident	System Administrator	5 - Planning	In Progress	Inquiry / Help	(empty)	kiran123	2025-09-19 11:06:20	admin
	INC0009009	2018-08-30 01:06:16	Unable to access the shared folder.	David Miller	4 - Low	New	Inquiry / Help	(empty)	(empty)	2018-12-12 23:30:24	admin
	INC0009005	2018-08-31 21:35:21	Email server is down.	David Miller	● 1 - Critical	New	Software	(empty)	(empty)	2018-12-12 23:18:55	admin
	INC0009004	2018-09-01 06:13:30	Defect tracking tool is down.	David Miller	3 - Moderate	Closed	Software	(empty)	(empty)	2025-06-25 23:45:07	system
	INC0009003	2018-08-30 02:17:32	Cannot sign into the company portal app	David Miller	3 - Moderate	Closed	Inquiry / Help	(empty)	(empty)	2018-12-12 23:39:53	admin
	INC0009002	2018-09-16 05:49:23	My computer is not detecting the headphone device	David Miller	3 - Moderate	Closed	Hardware	(empty)	(empty)	2025-06-25 23:45:07	system
	INC0009001	2018-09-11 20:56:26	Unable to post content on a Wiki page	David Miller	3 - Moderate	New	Inquiry / Help	(empty)	(empty)	2018-12-12 23:32:42	admin
	INC0008112	2019-07-29 11:48:43	Assessment : ATF Assessor	survey user	5 - Planning	New	Inquiry / Help	(empty)	(empty)	2019-07-29 11:49:28	admin
	INC0008111	2019-07-22 14:04:57	ATF : Test1	System Administrator	5 - Planning	New	Inquiry / Help	(empty)	(empty)	2019-07-22 14:05:48	admin
	INC0008001	2021-01-15 13:04:14	ATF:TEST2	survey user	5 - Planning	New	Inquiry / Help	(empty)	(empty)	2021-01-21 15:31:42	admin
	INC0007002	2018-10-16 22:47:51	Need access to the common drive.	David Miller	4 - Low	New	Inquiry / Help	(empty)	(empty)	2018-12-12 23:28:49	admin
	INC0007001	2018-10-16 22:47:10	Employee payroll application server is down.	David Miller	● 1 - Critical	New	Hardware	Openspace	(empty)	2025-06-25 23:36:34	system
	INC0001990	2020-06-07 09:02:25	Unable to access the personal details section in payroll portal	Problem CoordinatorATF	5 - Planning	On Hold	Inquiry / Help	(empty)	(empty)	2020-06-07 09:04:34	admin
	INC0000601	2025-06-21 02:42:59	The USB port on my PC stopped working	Beth Anglin	5 - Planning	Closed	Hardware	(empty)	(empty)	2025-08-23 16:17:40	system

https://dev304170.service-now.com/incident.do?sys_id=4fb1109a47003210eceff884116d439e&sysparm_record_target=incident&sysparm_record_row=1&sysparm_record_rows=68&sysparm_record_list=ORDERBYDESCnumber

---

Incident INC0010001 (Browser: INC0010001 | Incident | ServiceNow)

URL: dev304170.service-now.com/incident.do?sys_id=4fb1109a47003210eceff884116d439e&sysparm_record_target=incident&sysparm_record_row=1&sysparm_record_rows=68&...

Incident INC0010001

Follow | Update | Resolve | Delete

Field	Value	Field	Value
Number	INC0010001	Channel	-- None --
* Caller	System Administrator	State	In Progress
Category	Inquiry / Help	Impact	3 - Low
Subcategory	-- None --	Urgency	3 - Low
Service		Priority	5 - Planning
Service offering		Assignment group	
Configuration item		Assigned to	kiran123
* Short description	test-incident		
Description			

Related Search Results

Tabs: Notes | Related Records | Resolution Information

Watch list | Work notes list

Work notes

☐ Additional comments (Customer visible) Post

Activities: 1

System Administrator — Field changes · 2025-09-19 11:06:20
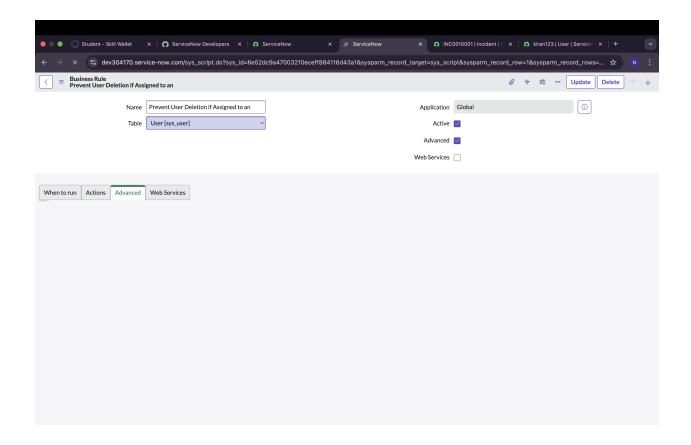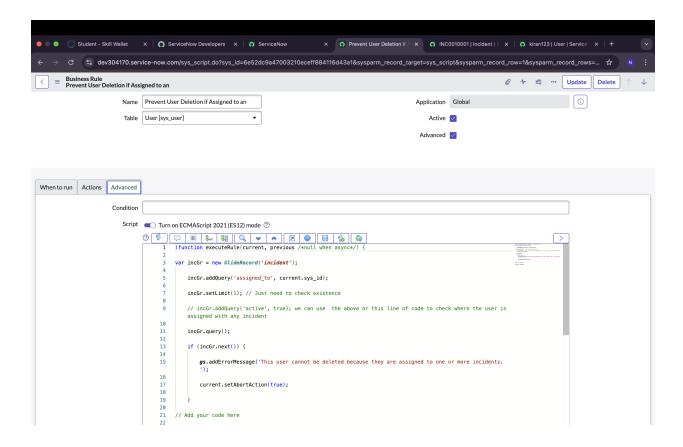
Assigned to   kiran123
Impact   3 - Low

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
```
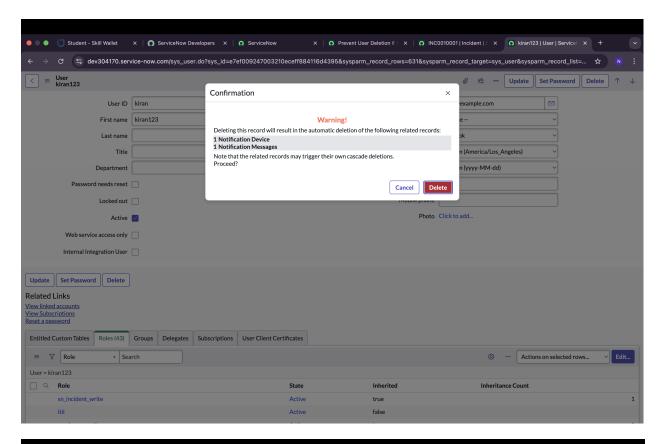
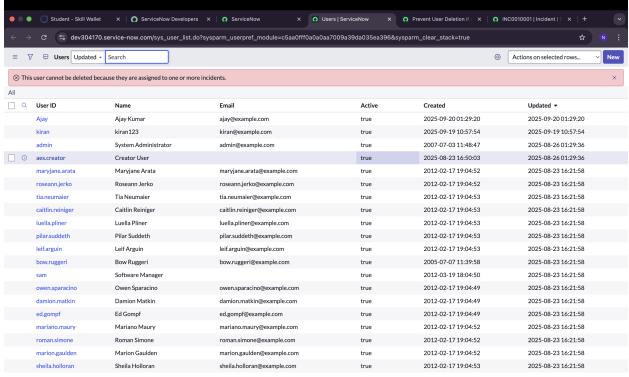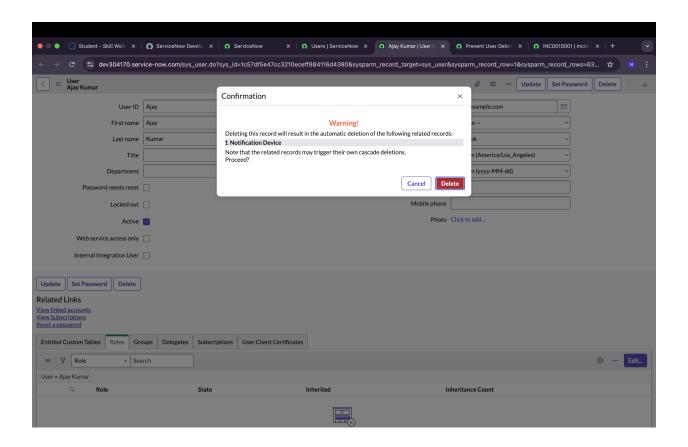})(current, previous);

Attempt to Delete Assigned User

1. Go to the user record (kiran123)
2. Click Delete
3. Verify that deletion is blocked with an error message

Student – Skill Wallet × | ServiceNow Developers × | ServiceNow × | Prevent User Deletion if × | INC0010001 | Incident | × | kiran123 | User | ServiceN × | +

dev304170.service-now.com/sys_user.do?sys_id=e7ef009247003210eceff884116d4395&sysparm_record_rows=631&sysparm_record_target=sys_user&sysparm_record_list=...

User
kiran123

Update | Set Password | Delete

User ID   kiran
First name   kiran123
Last name
Title
Department

Password needs reset ☐
Locked out ☐
Active ☑
Web service access only ☐
Internal Integration User ☐

example.com
-- -- ─
ok
n (America/Los_Angeles)
n (yyyy-MM-dd)

Mobile phone
Photo   Click to add...

Confirmation ✕

Warning!

Deleting this record will result in the automatic deletion of the following related records:

1 Notification Device
1 Notification Messages

Note that the related records may trigger their own cascade deletions.
Proceed?

Cancel | **Delete**

Update | Set Password | Delete

Related Links
View linked accounts
View Subscriptions
Reset a password

Entitled Custom Tables | Roles (43) | Groups | Delegates | Subscriptions | User Client Certificates

Role ▾ | Search

Actions on selected rows... | Edit...

User = kiran123

☐ Q	Role	State	Inherited	Inheritance Count
	sn_incident_write	Active	true	1
	itil	Active	false	

Student – Skill Wallet × | ServiceNow Developers × | ServiceNow × | Users | ServiceNow × | Prevent User Deletion if × | INC0010001 | Incident | × | +

dev304170.service-now.com/sys_user_list.do?sysparm_userpref_module=c5aa0fff0a0a0aa7009a39da035ea396&sysparm_clear_stack=true

Users | Updated ▾ | Search

Actions on selected rows... | New

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

All

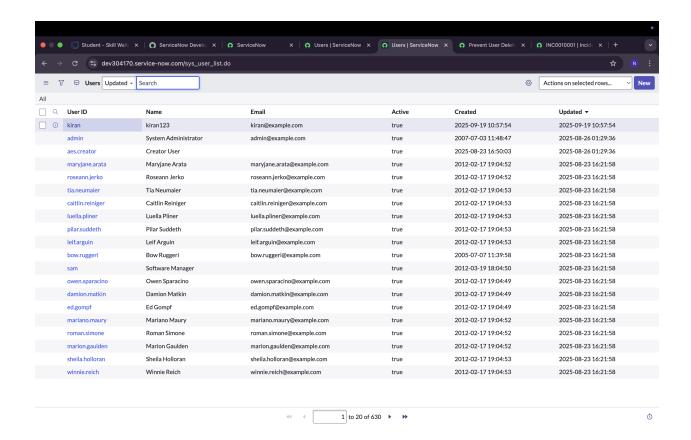| ☐ Q	User ID	Name	Email	Active	Created	Updated ▾
	Ajay	Ajay Kumar	ajay@example.com	true	2025-09-20 01:29:20	2025-09-20 01:29:20
	kiran	kiran123	kiran@example.com	true	2025-09-19 10:57:54	2025-09-19 10:57:54
	admin	System Administrator	admin@example.com	true	2007-07-03 11:48:47	2025-08-26 01:29:36
☐ ⓘ	aes.creator	Creator User		true	2025-08-23 16:50:03	2025-08-26 01:29:36
	maryjane.arata	Maryjane Arata	maryjane.arata@example.com	true	2012-02-17 19:04:52	2025-08-23 16:21:58
	roseann.jerko	Roseann Jerko	roseann.jerko@example.com	true	2012-02-17 19:04:52	2025-08-23 16:21:58
	tia.neumaier	Tia Neumaier	tia.neumaier@example.com	true	2012-02-17 19:04:52	2025-08-23 16:21:58
	caitlin.reiniger	Caitlin Reiniger	caitlin.reiniger@example.com	true	2012-02-17 19:04:53	2025-08-23 16:21:58
	luella.pliner	Luella Pliner	luella.pliner@example.com	true	2012-02-17 19:04:53	2025-08-23 16:21:58
	pilar.suddeth	Pilar Suddeth	pilar.suddeth@example.com	true	2012-02-17 19:04:53	2025-08-23 16:21:58
	leif.arguin	Leif Arguin	leif.arguin@example.com	true	2012-02-17 19:04:53	2025-08-23 16:21:58
	bow.ruggeri	Bow Ruggeri	bow.ruggeri@example.com	true	2005-07-07 11:39:58	2025-08-23 16:21:58
	sam	Software Manager		true	2012-03-19 18:04:50	2025-08-23 16:21:58
	owen.sparacino	Owen Sparacino	owen.sparacino@example.com	true	2012-02-17 19:04:49	2025-08-23 16:21:58
	damion.matkin	Damion Matkin	damion.matkin@example.com	true	2012-02-17 19:04:49	2025-08-23 16:21:58
	ed.gompf	Ed Gompf	ed.gompf@example.com	true	2012-02-17 19:04:49	2025-08-23 16:21:58
	mariano.maury	Mariano Maury	mariano.maury@example.com	true	2012-02-17 19:04:52	2025-08-23 16:21:58
	roman.simone	Roman Simone	roman.simone@example.com	true	2012-02-17 19:04:52	2025-08-23 16:21:58
	marion.gaulden	Marion Gaulden	marion.gaulden@example.com	true	2012-02-17 19:04:52	2025-08-23 16:21:58
	sheila.holloran	Sheila Holloran	sheila.holloran@example.com	true	2012-02-17 19:04:53	2025-08-23 16:21:58

1 to 20 of 631

Attempt to Delete Unused User

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

Conclusion

This project provides a safeguard mechanism against accidental or improper deletion of users who are still involved in active incidents. By using a Business Rule on the sys_user table, ServiceNow administrators can ensure that incident ownership and workflow integrity remain intact. This solution upholds data consistency and promotes operational continuity within IT service processes.