

Project

Prevent User Deletion if Assigned to Incident

Team ID: LTVIP2026TMIDS26598

Team Members: 04

Team Leader: Pachigolla Devi Likitha

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Problem Statement:

This project develops a server-side validation mechanism in ServiceNow to prevent accidental deletion of users who are assigned to active incidents. In IT Service Management systems, deleting a user record linked to incidents can cause workflow disruption, data inconsistency, and accountability loss. The solution implements a **Before Delete Business Rule** on the sys_user table, which checks the incident table using GlideRecord. If related incidents exist, deletion is blocked with an appropriate error message. This project enhances data integrity, workflow continuity, and system reliability within ServiceNow-based IT environments.

Objective:

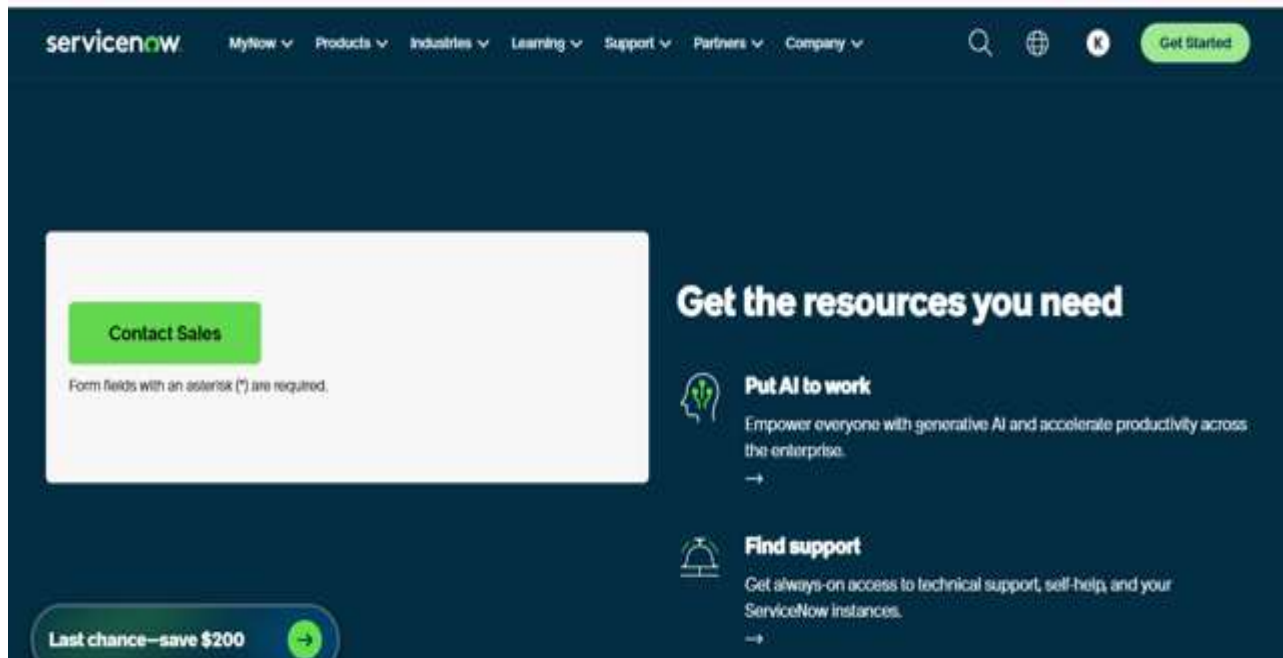
The main objective of this project is to develop a centralized Incident Management System using ServiceNow that enables users to report incidents digitally and allows support teams to track, assign, prioritize, and resolve issues efficiently.

Skills:

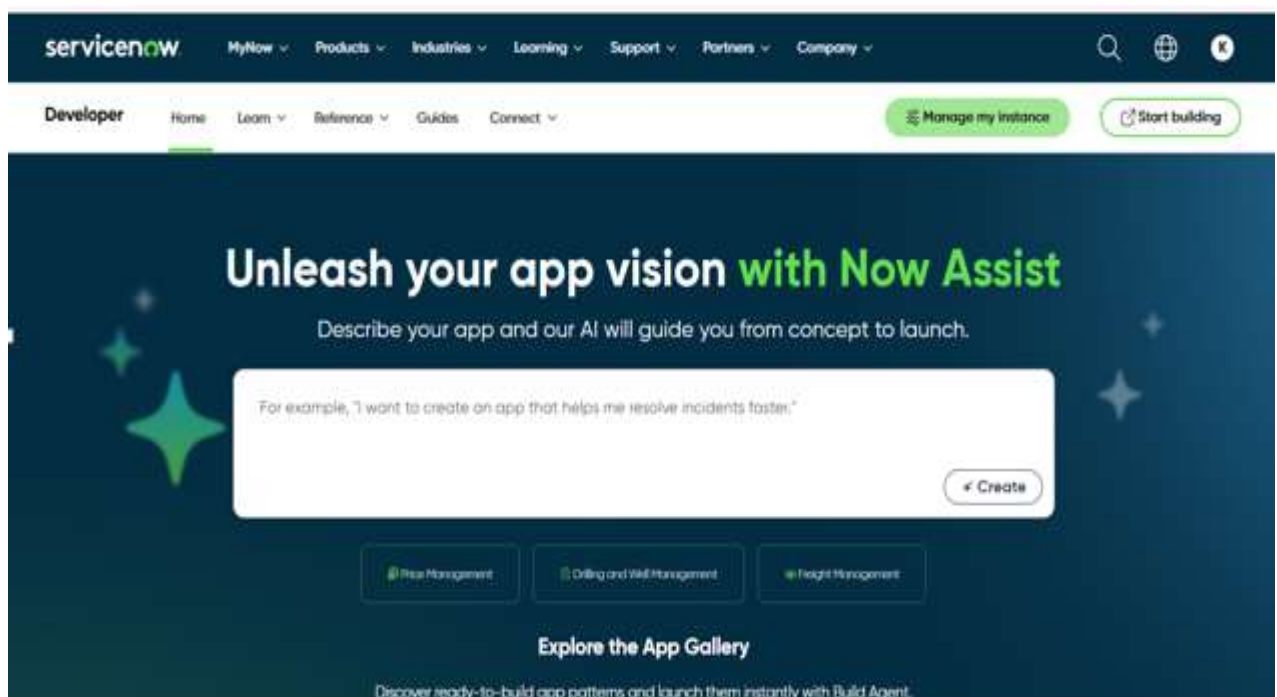
- ❖ ServiceNow Platform Knowledge
- ❖ ITIL Concepts (Incident Management)
- ❖ JavaScript (Client Scripts & Business Rules)
- ❖ Database Concepts
- ❖ Workflow Automation
- ❖ Problem-Solving
- ❖ Analytical Thinking
- ❖ Team Collaboration
- ❖ Project Documentation

TASK INITIATION

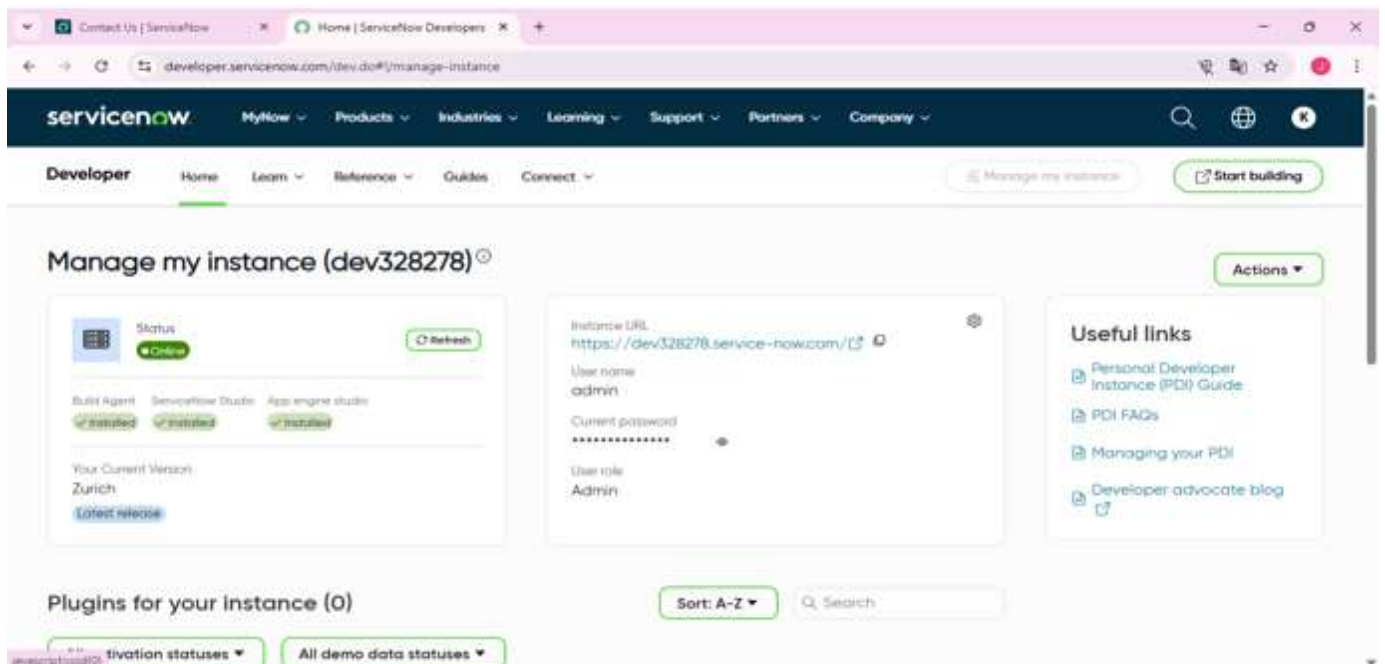
■ Module 1: User Creation



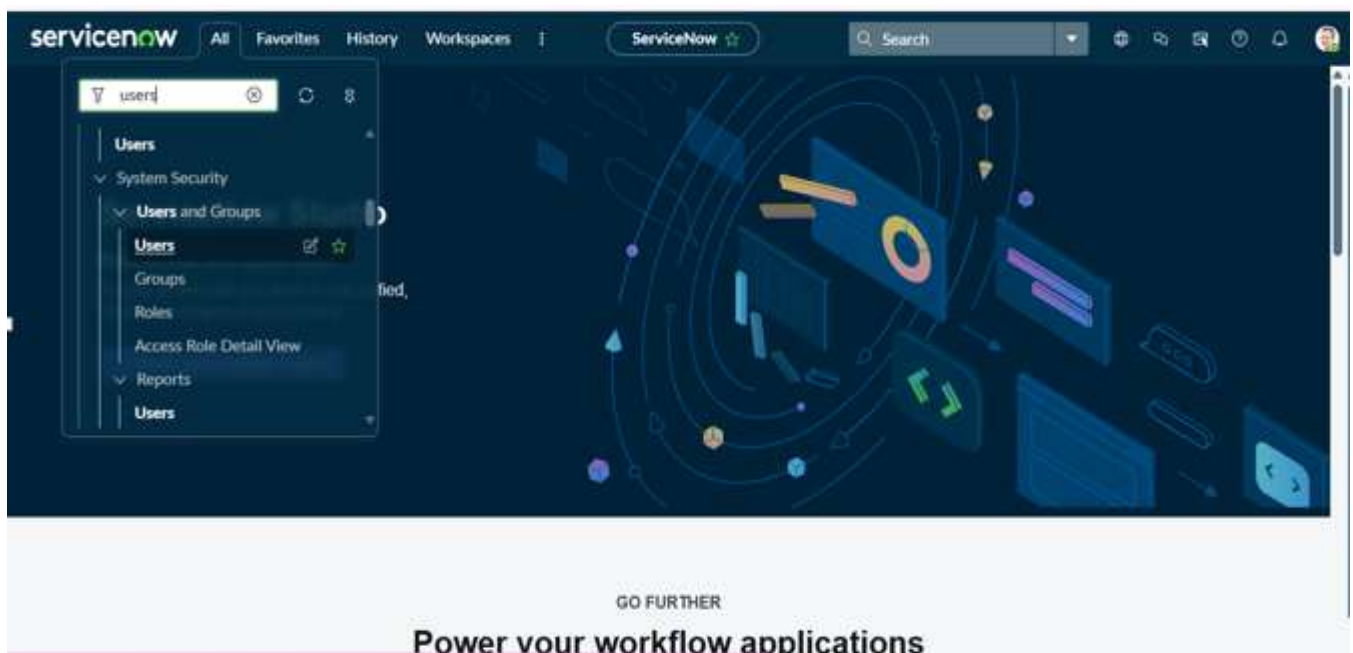
Step 1: Click on My instance



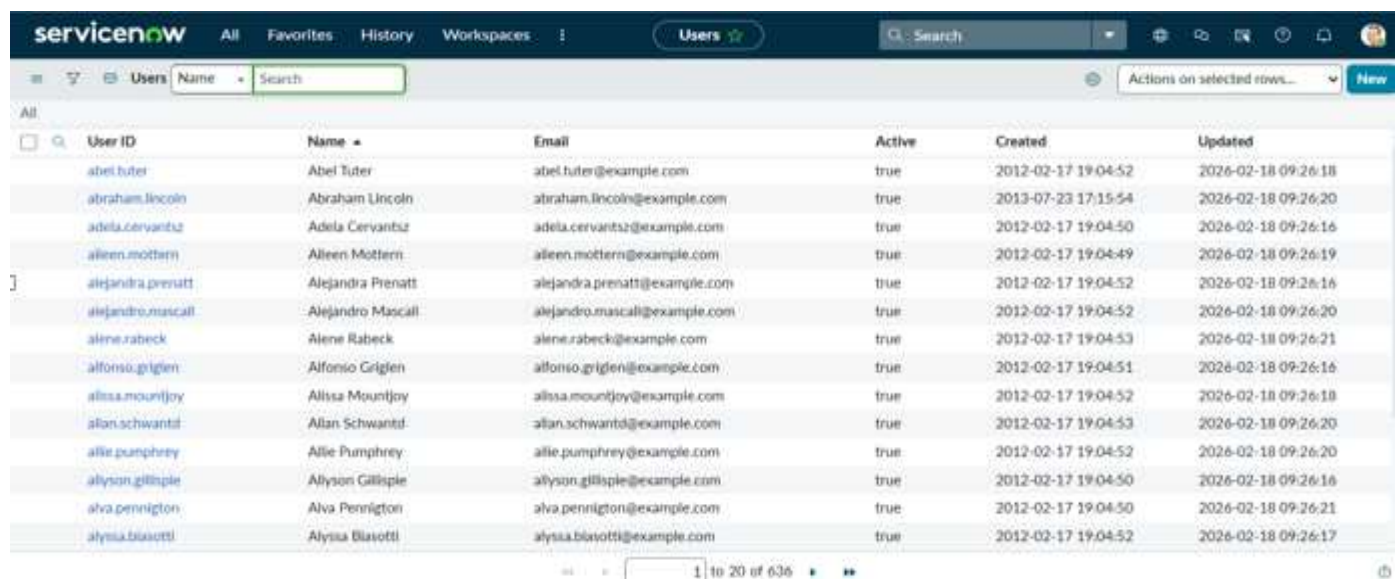
Step 2: Click on Instance url



Step 3: Click on All>>Users (System Security)



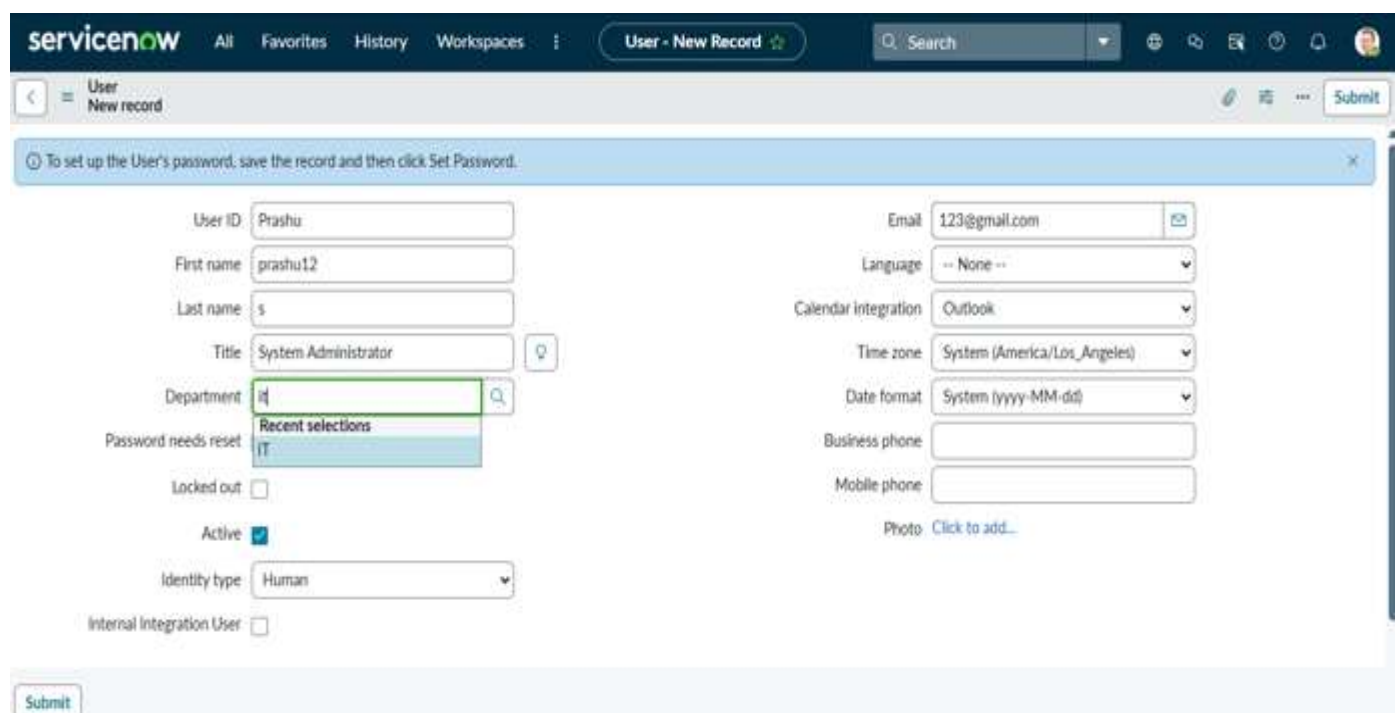
Step 4:click on New



servicenow All Favorites History Workspaces Users Search Actions on selected rows... New						
All						
<input type="checkbox"/>	User ID	Name	Email	Active	Created	Updated
<input type="checkbox"/>	abel.tuter	Abel Tuter	abel.tuter@example.com	true	2012-02-17 19:04:52	2026-02-18 09:26:18
<input type="checkbox"/>	abraham.lincoln	Abraham Lincoln	abraham.lincoln@example.com	true	2013-07-23 17:15:54	2026-02-18 09:26:20
<input type="checkbox"/>	adela.cervantsz	Adela Cervantsz	adela.cervantsz@example.com	true	2012-02-17 19:04:50	2026-02-18 09:26:16
<input type="checkbox"/>	aleen.mottern	Aleen Mottern	aleen.mottern@example.com	true	2012-02-17 19:04:49	2026-02-18 09:26:19
<input type="checkbox"/>	alejandra.prenatt	Alejandra Prenatt	alejandra.prenatt@example.com	true	2012-02-17 19:04:52	2026-02-18 09:26:16
<input type="checkbox"/>	alejandro.mascali	Alejandro Mascali	alejandro.mascali@example.com	true	2012-02-17 19:04:52	2026-02-18 09:26:20
<input type="checkbox"/>	alene.rabeck	Alene Rabeck	alene.rabeck@example.com	true	2012-02-17 19:04:53	2026-02-18 09:26:21
<input type="checkbox"/>	alfonso.griglen	Alfonso Griglen	alfonso.griglen@example.com	true	2012-02-17 19:04:51	2026-02-18 09:26:16
<input type="checkbox"/>	alissa.mountjoy	Alyssa Mountjoy	alissa.mountjoy@example.com	true	2012-02-17 19:04:52	2026-02-18 09:26:18
<input type="checkbox"/>	alon.schwandt	Alan Schwandt	alon.schwandt@example.com	true	2012-02-17 19:04:53	2026-02-18 09:26:20
<input type="checkbox"/>	allie.pumphrey	Allie Pumphrey	allie.pumphrey@example.com	true	2012-02-17 19:04:52	2026-02-18 09:26:20
<input type="checkbox"/>	alysyn.gillisple	Alyson Gillisple	alysyn.gillisple@example.com	true	2012-02-17 19:04:50	2026-02-18 09:26:16
<input type="checkbox"/>	alva.pennigton	Alva Pennigton	alva.pennigton@example.com	true	2012-02-17 19:04:50	2026-02-18 09:26:21
<input type="checkbox"/>	alysia.blasotti	Alyssa Blasotti	alysia.blasotti@example.com	true	2012-02-17 19:04:52	2026-02-18 09:26:17

Step 5: Create Two users

Enter the Details >> Click on Submit.



servicenow All Favorites History Workspaces User - New Record Search

< = User New record Submit

To set up the User's password, save the record and then click Set Password.

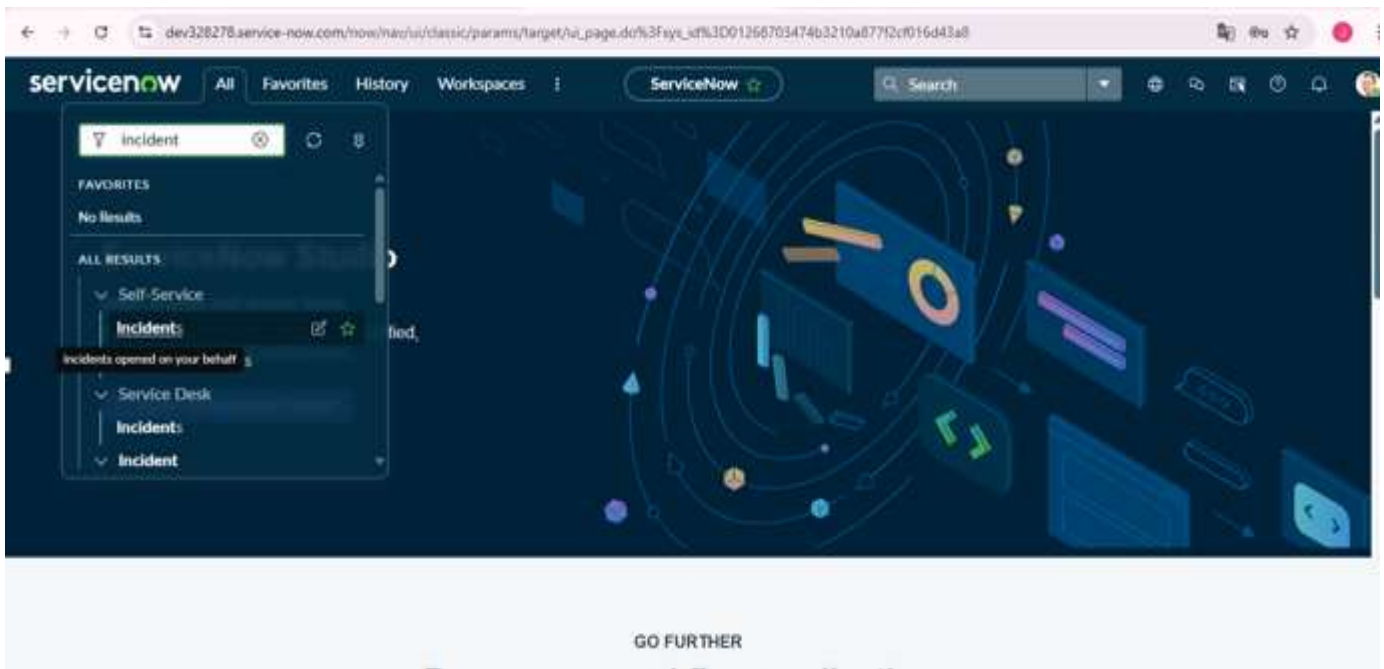
User ID	Prashu	Email	123@gmail.com
First name	prashu12	Language	-- None --
Last name	s	Calendar integration	Outlook
Title	System Administrator	Time zone	System (America/Los_Angeles)
Department	IT	Date format	System (yyyy-MM-dd)
Recent selections	IT	Business phone	
IT		Mobile phone	
Locked out	<input type="checkbox"/>	Photo	Click to add...
Active	<input checked="" type="checkbox"/>		
Identity type	Human		
Internal Integration User	<input type="checkbox"/>		

Submit

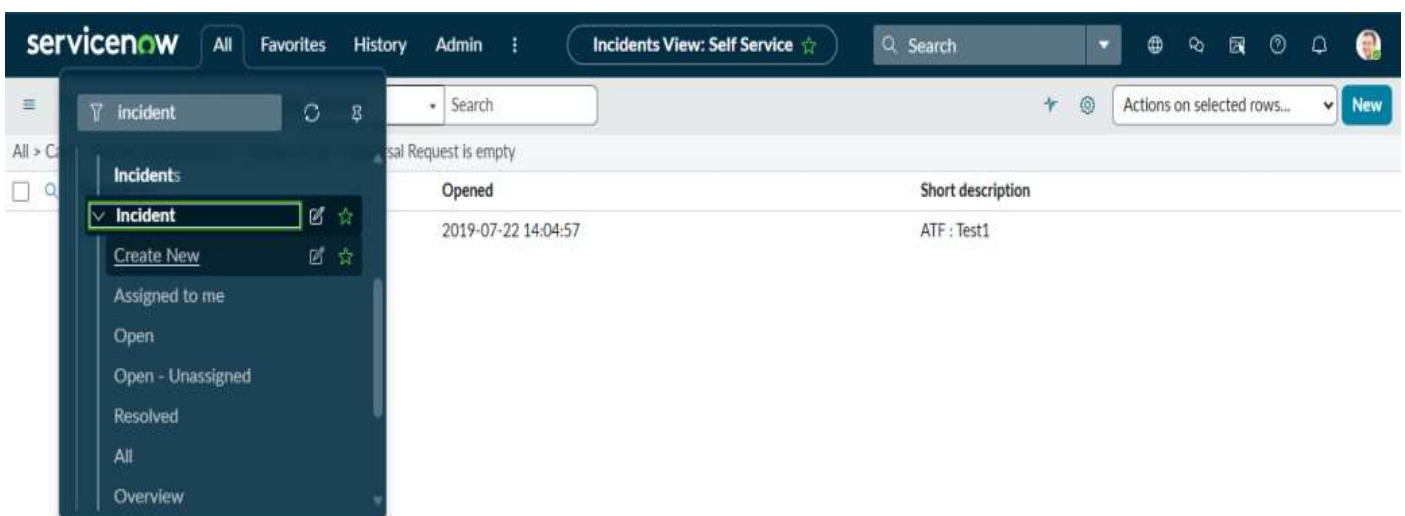
■ Module 2: Assign incident to user

Step 1: Navigate to the incident

All>>incident



Step 2: Click On Create New incident



Step 3: Enter the Details: caller,state,assigned to >> Click on submit

servicenow All Favorites History Admin Incident - Create INC0010008 Search

Incident New record

Number INC0010008

Channel -- None --

State New

Impact

Urgency

Priority

Assignment group

Assigned to

Short description

Description

Related Search Results

Related Search Knowledge & Catalog (All)

Module 3: Business Rule Creation

Step 1: Go to System Definition >> Business Rule

servicenow All Favorites History Workspaces Business Rules Search

business

FAVORITES

No Results

ALL RESULTS

Self-Service

Business Applications

Activity Subscriptions

Administration

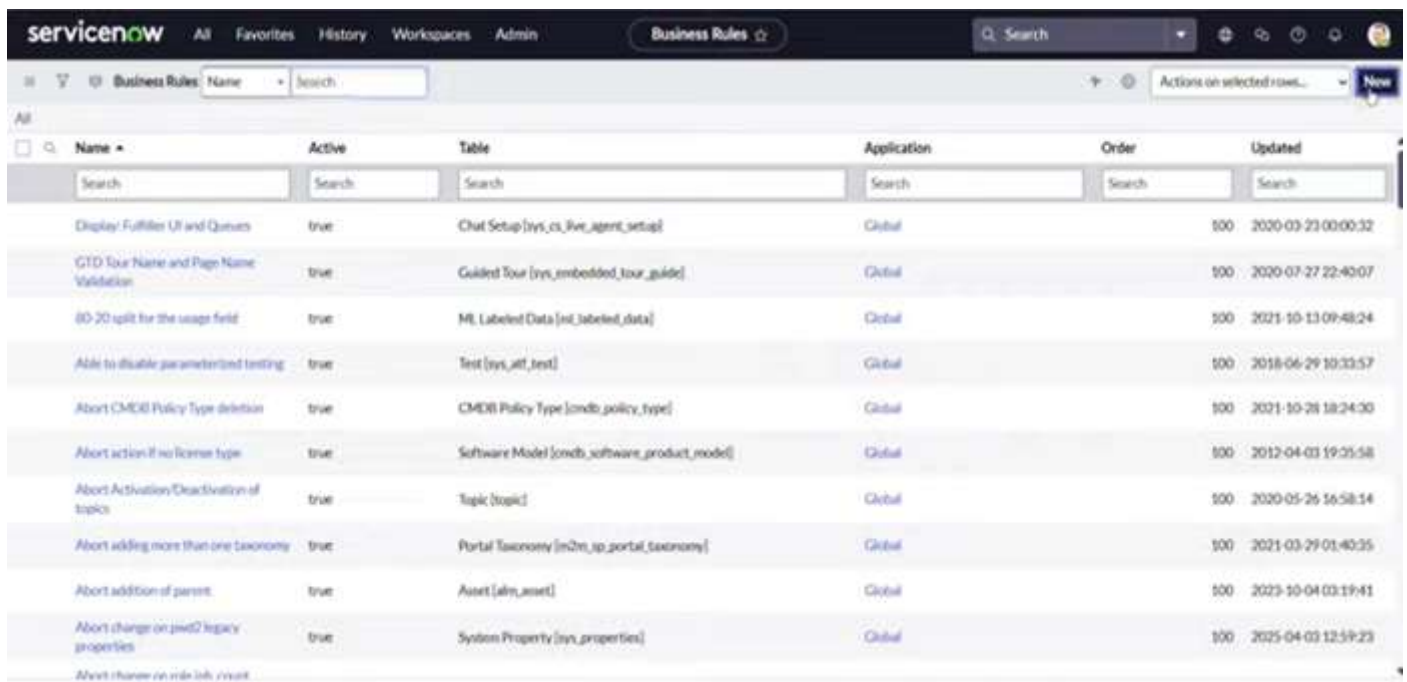
Business Rules

Business Calendar

Table	Application	Order	Updated
Activity [sn_actsub_activity]	Global	100	2017-02-01 17:17:01
Activity [sn_actsub_activity]	Global	100	2017-12-25 22:04:21
Activity Type [sn_actsub_activity_type]	Global	100	2019-08-30 05:09:44
Activity Facet [sn_actsub_facet]	Global	100	2020-03-17 02:51:53
Activity Context Type [sn_actsub_source_context_mapping]	Global	100	2020-03-17 02:52:43
Activity Group Type [sn_actsub_m2m_subobject_activitytype]	Global	100	2020-03-17 02:53:41
Activity Type Template [sn_actsub_activitytype_template]	Global	100	2020-02-23 01:28:55
Activity Context Group [sn_actsub_m2m_context_subobject]	Global	100	2020-03-17 02:55:02
Activity Context [sn_actsub_activity_context]	Global	100	2020-03-17 02:55:59

1 to 10 of 10

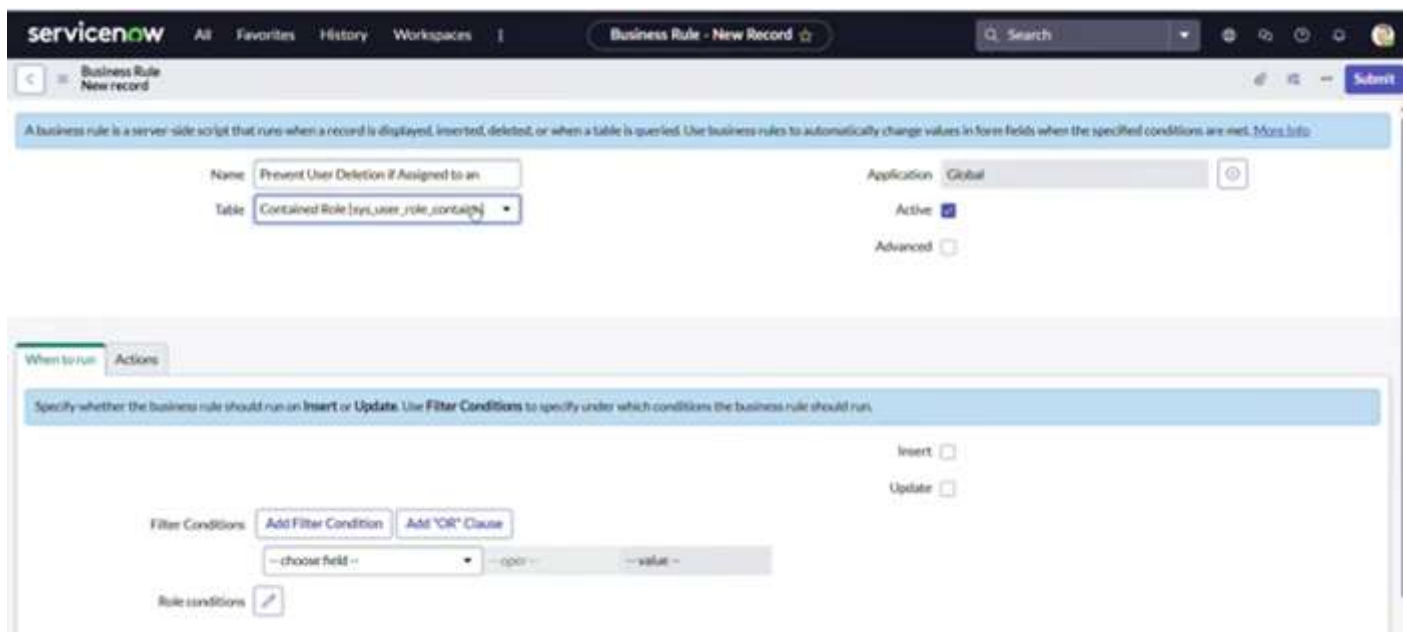
Step 2: Click on New



Business Rules						
Business Rules						
Name	Active	Table	Application	Order	Updated	
Search	Search	Search	Search	Search	Search	
Display Fulfiller UI and Queues	true	Chat Setup [sys_cs_chat_agent_setup]	Global	100	2020-03-23 00:00:32	
GTD Tour Name and Page Name Validation	true	Guided Tour [sys_embedded_tour_guide]	Global	100	2020-07-27 22:40:07	
80-20 split for the usage field	true	ML Labeled Data [ml_labeled_data]	Global	100	2021-10-13 09:48:24	
Able to disable parameterized testing	true	Test [sys_ptf_test]	Global	100	2018-06-29 10:33:57	
Abort CMDB Policy Type deletion	true	CMDB Policy Type [cmdb_policy_type]	Global	100	2021-10-26 18:24:30	
Abort action if no license type	true	Software Model [cmdb_software_product_model]	Global	100	2012-04-03 19:25:58	
Abort Activation/Deactivation of topics	true	Topic [topic]	Global	100	2020-05-26 16:58:14	
Abort adding more than one taxonomy	true	Portal Taxonomy [m2m_ip_portal_taxonomy]	Global	100	2021-03-29 01:40:35	
Abort addition of parent	true	Asset [alm_asset]	Global	100	2023-10-04 03:19:41	
Abort change on pwt2 legacy properties	true	System Property [sys_properties]	Global	100	2025-04-03 12:59:23	
Abort change on role job count						

Step 3: Creating business rule

Enter details>>Name:Prevent User Deletion if assigned an incident,
Table:Select sys_user,Active:checked



Business Rule - New Record

A business rule is a server-side script that runs when a record is displayed, inserted, deleted, or when a table is queried. Use business rules to automatically change values in form fields when the specified conditions are met. [More info](#)

Name: Prevent User Deletion if Assigned to an

Table: Contained Role [sys_user_role_contain]

Application: Global

Active: ☒

Advanced: ☐

When to run: Actions


Specify whether the business rule should run on Insert or Update. Use Filter Conditions to specify under which conditions the business rule should run.

Insert: ☐

Update: ☐

Filter Conditions: Add Filter Condition Add "OR" Clause

--choose field-- --operator-- --value--

Rule conditions: 

Step 7: Advanced: checked>>When: Before>>Delete checked

Code 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.');
```

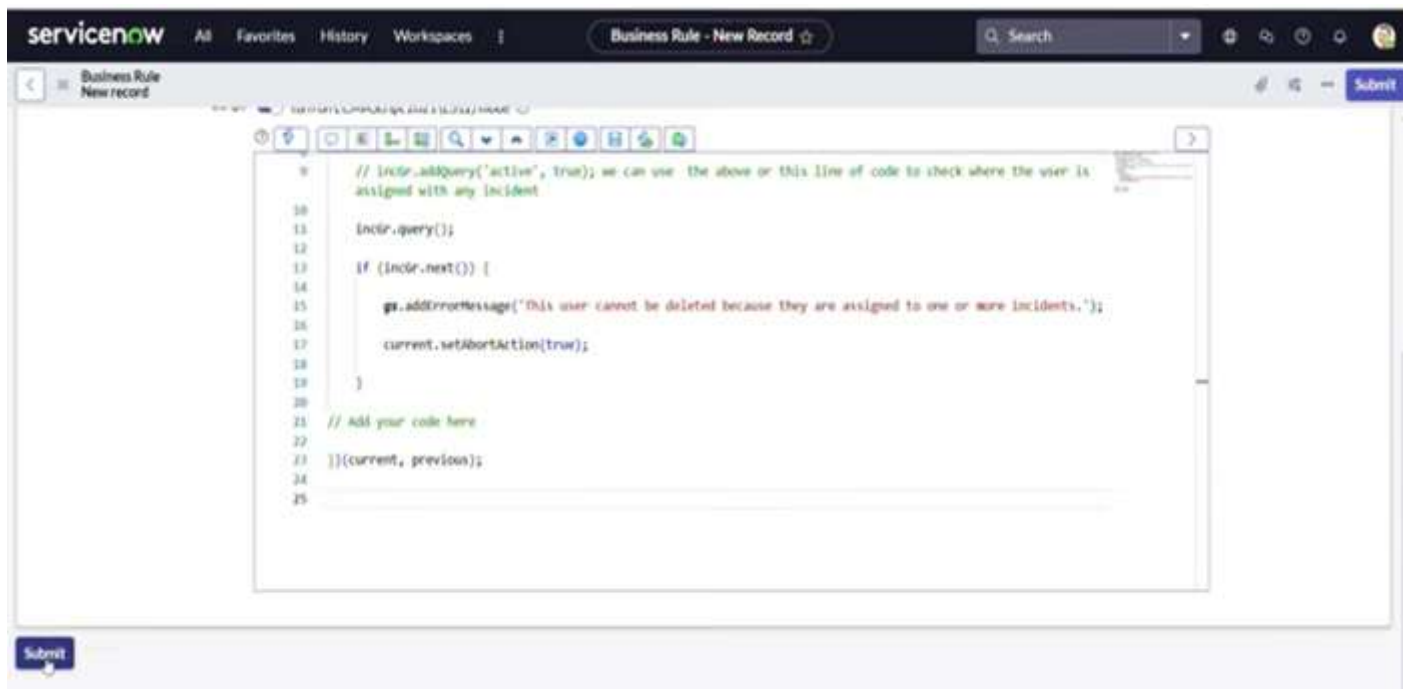
```
    current.setAbortAction(true);
```

```
}
```


// Add your code here

})(current, previous);

>>Click on submit



Module 4: Test deletion

Attempt to delete assignment user

Step 1:Go to user record>>Try to delete

The screenshot shows the ServiceNow Users list view. The breadcrumb navigation indicates the path: Users > Users. The table displays the following data:

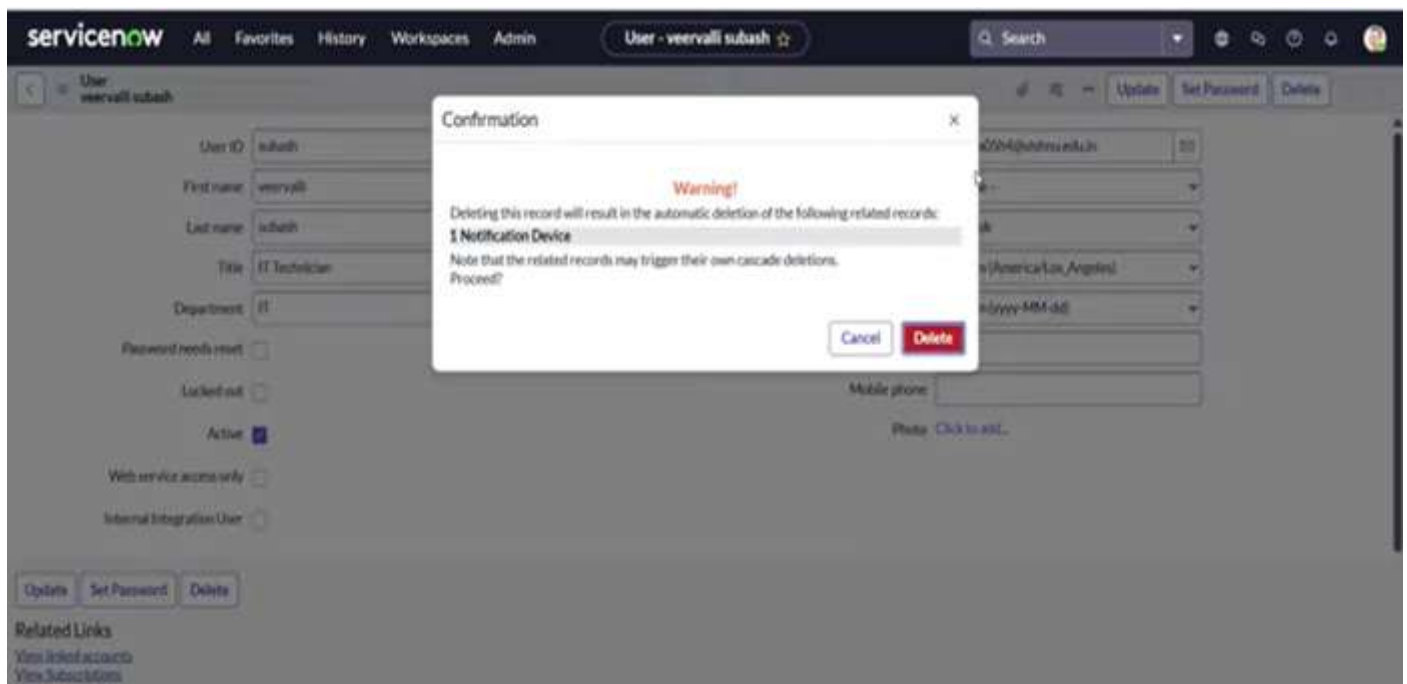
User ID	Name	Email	Active	Created	Updated
u00000000000000000000000000000000	Search	Search	Search	Search	Search
u00000000000000000000000000000000	Search	Search	Search	Search	Search

Step 2: Click on Delete



The screenshot shows the ServiceNow user management interface for a user named 'veervall subash'. The user's details, including ID, name, title, and department, are visible on the left. On the right, there are fields for email, language, calendar integration, time zone, date format, business phone, and mobile phone. At the bottom right, there are three buttons: 'Update', 'Set Password', and 'Delete'. The 'Delete' button is highlighted with a red circle, indicating the next step in the process.

Step 2: Verify the delete is blocked with an error message



The screenshot shows the same ServiceNow user management interface, but now a 'Confirmation' dialog box is displayed in the center. The dialog box has a title bar with 'Confirmation' and a close button. Inside, there is a red 'Warning!' icon and text that reads: 'Deleting this record will result in the automatic deletion of the following related records: 1 Notification Device. Note that the related records may trigger their own cascade deletions. Proceed?'. At the bottom of the dialog box, there are two buttons: 'Cancel' and 'Delete'. The 'Delete' button is highlighted with a red circle, indicating the next step in the process.

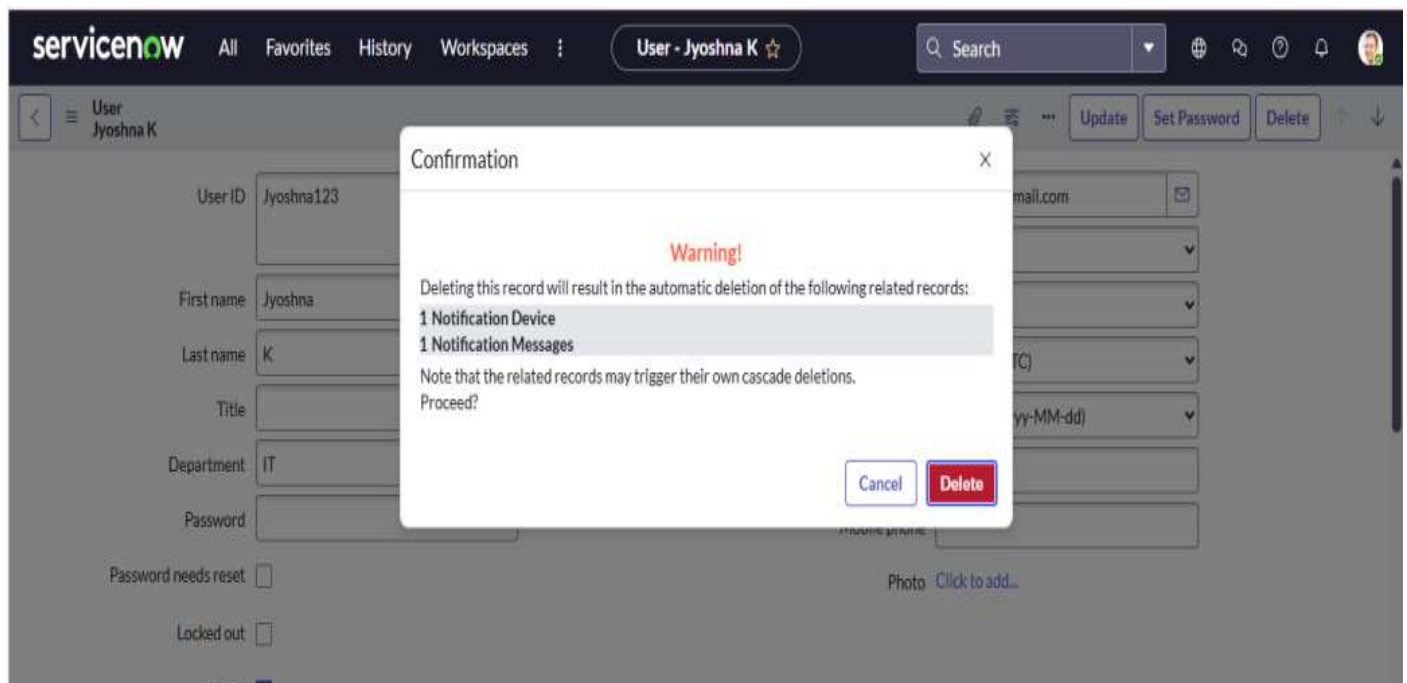
Module 5: Test with unassigned user

Step 1: Attempt to delete unassigned user.



User ID	Name	Email	Active	Created	Updated
Jyoshna123	Jyoshna K	Jyoshna@gmail.com	true	2026-02-11 10:02:37	2026-02-11 10:22:00

Step 2: Click on delete >> Delete should Succeed.



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?

Conclusion:

The project “Prevent User Deletion if Assigned to Incident” successfully demonstrates how ServiceNow can be used to enforce data integrity and prevent critical system errors. In many organizations, deleting a user who is already assigned to active or historical incidents can lead to data inconsistencies, reporting issues, and loss of accountability. Through the implementation of a Before Delete Business Rule and server-side validation using GlideRecord, this project ensures that users linked to incidents cannot be deleted accidentally. The system displays a proper error message and restricts the action, thereby maintaining referential integrity within the Incident Management module. This solution enhances system reliability, improves administrative control, and protects organizational data from unintended modifications. Overall, the project highlights the importance of implementing validation mechanisms in IT Service Management platforms like ServiceNow to ensure secure and efficient operations.