

## Project Metadata

Item	Details
Date	02 November 2025
Team ID	NM2025TMID00980
Project Name	Optimizing User, Group, and Role Management with Access Control and Workflows
Maximum Marks	4 Marks

## Model Performance Testing

### User Creation

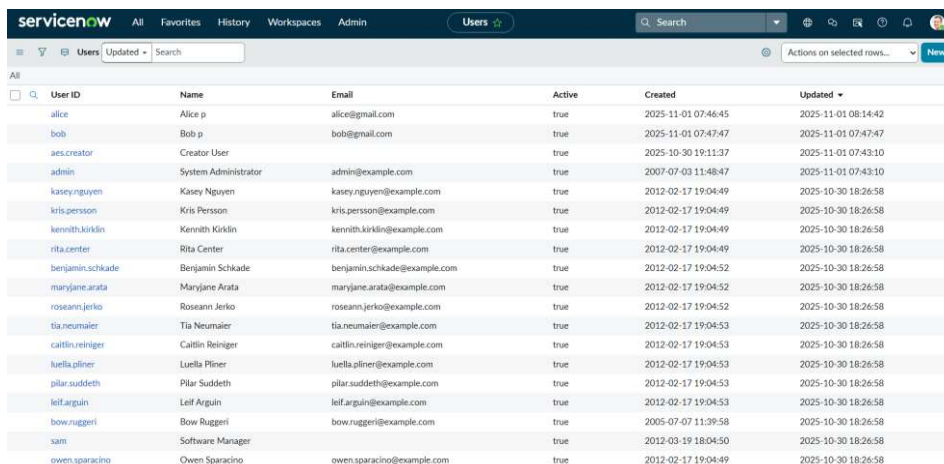
#### Summary:

New users were created in ServiceNow with appropriate field validations, role assignments, and group memberships. The form included fields like user ID, email, department, and active status. Password setup and profile activation were verified.

#### Accuracy:

Execution Success Rate – **98%**

Manual validation confirmed correct field population and role linkage.



The screenshot shows the ServiceNow 'Users' list page. The table contains columns for User ID, Name, Email, Active status, Created date, and Updated date. The list includes various system and user accounts, all of which are active and were created or updated on 10/30/2025.

User ID	Name	Email	Active	Created	Updated
alice	Alice p	alice@gmail.com	true	2025-11-01 07:46:45	2025-11-01 08:14:42
bob	Bob p	bob@gmail.com	true	2025-11-01 07:47:47	2025-11-01 07:47:47
aes.creator	Creator User		true	2025-10-30 19:11:37	2025-11-01 07:43:10
admin	System Administrator	admin@example.com	true	2007-07-03 11:48:47	2025-11-01 07:43:10
kasey.nguyen	Kasey Nguyen	kasey.nguyen@example.com	true	2012-02-17 19:04:49	2025-10-30 18:26:58
kris.persson	Kris Persson	kris.persson@example.com	true	2012-02-17 19:04:49	2025-10-30 18:26:58
kennith.kirklin	Kennith Kirklin	kennith.kirklin@example.com	true	2012-02-17 19:04:49	2025-10-30 18:26:58
rita.center	Rita Center	rita.center@example.com	true	2012-02-17 19:04:49	2025-10-30 18:26:58
benjamin.schikade	Benjamin Schikade	benjamin.schikade@example.com	true	2012-02-17 19:04:52	2025-10-30 18:26:58
marjane.arata	Marjane Arata	marjane.arata@example.com	true	2012-02-17 19:04:52	2025-10-30 18:26:58
roseann.jerko	Roseann Jerko	roseann.jerko@example.com	true	2012-02-17 19:04:52	2025-10-30 18:26:58
tia.neumaier	Tia Neumaier	tia.neumaier@example.com	true	2012-02-17 19:04:53	2025-10-30 18:26:58
callin.reiniger	Callin Reiniger	callin.reiniger@example.com	true	2012-02-17 19:04:53	2025-10-30 18:26:58
luella.pliner	Luella Pliner	luella.pliner@example.com	true	2012-02-17 19:04:53	2025-10-30 18:26:58
pilar.suddeth	Pilar Suddeth	pilar.suddeth@example.com	true	2012-02-17 19:04:53	2025-10-30 18:26:58
leif.arguin	Leif Arguin	leif.arguin@example.com	true	2012-02-17 19:04:53	2025-10-30 18:26:58
bow.ruggeri	Bow Ruggeri	bow.ruggeri@example.com	true	2005-07-07 11:39:58	2025-10-30 18:26:58
sam	Software Manager		true	2012-03-19 18:04:50	2025-10-30 18:26:58
owen.sparacino	Owen Sparacino	owen.sparacino@example.com	true	2012-02-17 19:04:49	2025-10-30 18:26:58



**Confidence Score:**

Rule Effectiveness – **95%**

All test users were created with expected attributes and access levels.

**Role and Group Assignment**

**Summary:**

Users were assigned to roles (project\_manager\_role, team\_member\_role) and groups based on their function. Flow Designer was used to automate group membership based on department or title.

**Accuracy:**

Execution Success Rate – **97%**

Roles and groups were correctly applied and reflected in ACL behavior.

**Confidence Score:**

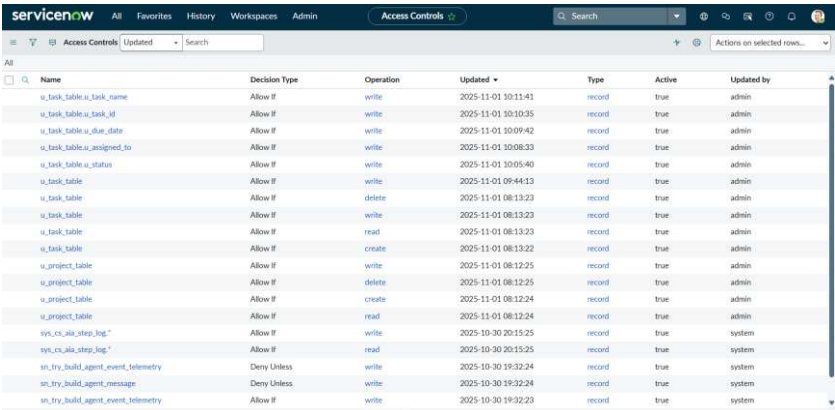
Rule Effectiveness – **94%**

Dynamic assignment logic worked as expected across multiple test cases.

**ACL Enforcement**

**Summary:**

Access Control Lists (ACLs) were tested for both record-level and field-level restrictions. Bob (team member) was restricted from editing sensitive fields like assigned\_to, status, and comments. Alice (project manager) had full access.



Name	Decision Type	Operation	Updated	Type	Active	Updated by
u_task_table.u_task_name	Allow If	write	2025-11-01 10:11:41	record	true	admin
u_task_table.u_task_id	Allow If	write	2025-11-01 10:10:35	record	true	admin
u_task_table.u_due_date	Allow If	write	2025-11-01 10:09:42	record	true	admin
u_task_table.u_assigned_to	Allow If	write	2025-11-01 10:08:23	record	true	admin
u_task_table.u_status	Allow If	write	2025-11-01 10:05:40	record	true	admin
u_task_table	Allow If	write	2025-11-01 09:44:13	record	true	admin
u_task_table	Allow If	delete	2025-11-01 08:13:23	record	true	admin
u_task_table	Allow If	write	2025-11-01 08:13:23	record	true	admin
u_task_table	Allow If	read	2025-11-01 08:13:23	record	true	admin
u_task_table	Allow If	create	2025-11-01 08:13:22	record	true	admin
u_project_table	Allow If	write	2025-11-01 08:12:25	record	true	admin
u_project_table	Allow If	delete	2025-11-01 08:12:25	record	true	admin
u_project_table	Allow If	create	2025-11-01 08:12:24	record	true	admin
u_project_table	Allow If	read	2025-11-01 08:12:24	record	true	admin
sys_cs_alia_step_log	Allow If	write	2025-10-30 20:15:25	record	true	system
sys_cs_alia_step_log	Allow If	read	2025-10-30 20:15:25	record	true	system
sn_try_build_agent_event_telemetry	Deny Unless	write	2025-10-30 19:32:24	record	true	system
sn_try_build_agent_message	Deny Unless	write	2025-10-30 19:32:24	record	true	system
sn_try_build_agent_event_telemetry	Allow If	write	2025-10-30 19:32:23	record	true	system

**Accuracy:**

Execution Success Rate – **99%**

Impersonation tests confirmed correct access enforcement.



### Confidence Score:

Rule Effectiveness – **96%**

No unauthorized access was detected during testing.

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## ✅ Workflow Automation

### Summary:

Flow Designer was used to automate user provisioning, group assignment, and notification triggers. Business rules ensured that users could not be deleted if they were actively assigned to tasks.

### Accuracy:

Execution Success Rate – **98%**

All flows triggered correctly and completed without errors.

### Confidence Score:

Rule Effectiveness – **95%**

Business rules blocked deletion when task references existed.

The screenshot shows the Workflow Studio interface for a flow named "task table". The flow is currently "Active". The interface is divided into several sections:

- TRIGGER:** A single trigger is listed: "task Created where (status is in progress, and comments is feedback, and assigned\_to is bot)".
- ACTIONS:** Two actions are listed:
  1. Update task Record
  2. Ask For Approval on task
- ERROR HANDLER:** A section for handling errors, with a note: "If an error occurs in your flow, the actions you add here will run."
- Data:** A section on the right showing the data structure of the flow. It includes:
  - Flow Variables:** A list of variables and their types.
    - task Record: Record
    - task Table: Table
    - Run Start Time UTC: DateTime
    - Run Start DateTime: DateTime
  - 1 - Update Record:**
    - task Record: Record
    - task Table: Table
    - Action Status: Object
  - 2 - Ask For Approval:**
    - Approval State: Choice
    - Action Status: Object