

# Importing and Securing Data in ServiceNow

Team ID : LTVIP2025TMID28567

Team Size : 3

Team Leader : vallu Mahendra

Team member : Devaki v

Team member : cheekatla sarat Chandra

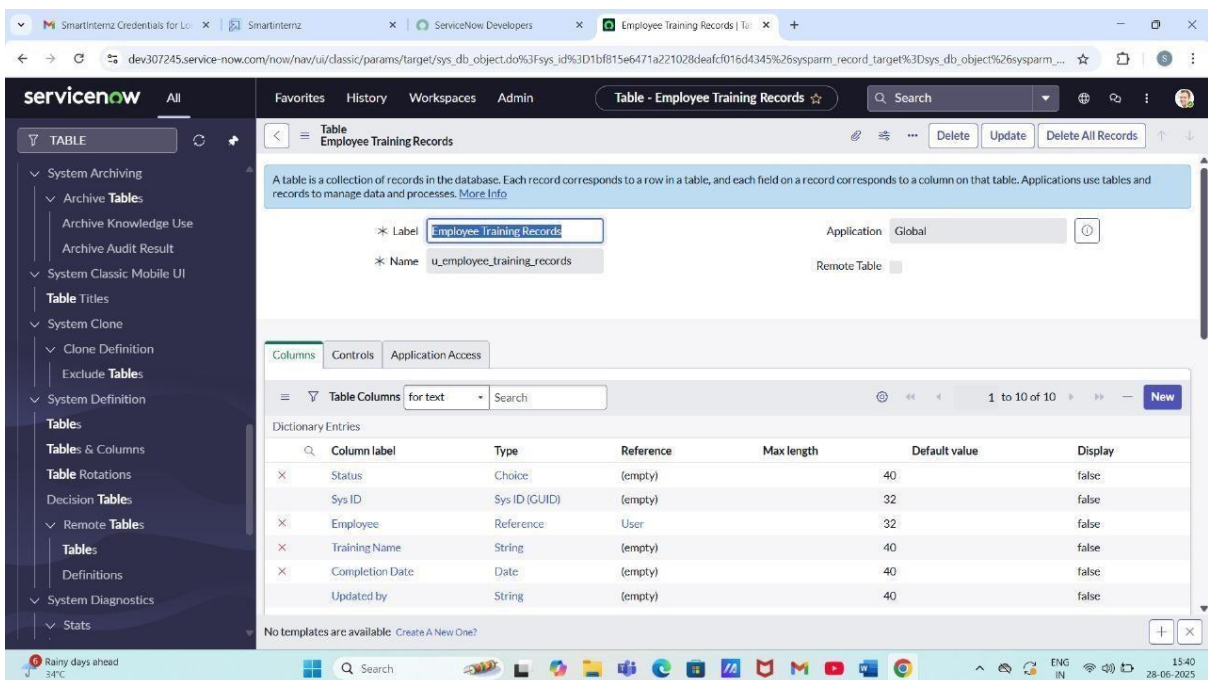
## INTRODUCTION:

ServiceNow is a cloud-based platform widely used for IT service management (ITSM), business workflow automation, and enterprise operations. One of its key capabilities is handling data — including importing, organizing, and securing it efficiently.

**Data Importing** in ServiceNow involves bringing external data (e.g., from Excel, CSV, or databases) into the platform to populate tables, automate workflows, or support business processes. This is typically done using tools like **Import Sets**, **Transform Maps**, and **Data Sources**. These tools ensure that raw data is accurately mapped to ServiceNow's structured tables, preserving data integrity and usability.

On the other hand, **Data Security** in ServiceNow is critical to protect sensitive information and ensure proper access control. ServiceNow employs a robust **role-based access control (RBAC)** system, allowing administrators to define who can view, edit, or delete specific data. Additionally, **Field-level encryption**, **Access Control Rules**, and **Data Policies** are used to safeguard data throughout its lifecycle.

## Tables in ServiceNow:



The screenshot shows the ServiceNow interface for configuring a table named 'Employee Training Records'. The sidebar on the left contains navigation options such as 'System Archiving', 'Table Titles', 'Table Columns', and 'Table Rotations'. The main content area displays the table's configuration, including its label, name, application, and a list of columns with their types, references, and lengths.

Column label	Type	Reference	Max length	Default value	Display
Status	Choice	(empty)	40		false
Sys ID	Sys ID (GUID)	(empty)	32		false
Employee	Reference	User	32		false
Training Name	String	(empty)	40		false
Completion Date	Date	(empty)	40		false
Updated by	String	(empty)	40		false

In ServiceNow, tables are the foundational components where data is stored. Each table contains fields (columns) and records (rows) similar to a relational database.

Tables can represent:

- Users (sys\_user)
- Incidents (incident)
- Departments (cmn\_department)
- Assets (alm\_asset)
- Configuration Items (cmdb\_ci)
- Custom business records (via custom tables)

## Field Types in Tables

Each table contains **fields**, each with a defined data type. Common field types include:

Field Type	Description
String	Text values (e.g., Name, Description)
Integer	Whole numbers
Date/Time	Date and time information
Reference	Link to another table
Choice	Dropdown list of predefined values
Boolean	True/False checkbox
Glide List	List of references to other table records
Journal (Notes)	Tracks history (e.g., comments/work notes)

## System Tables:

ServiceNow also includes **system tables** that handle internal configurations:

Table Name	Purpose
sys_user	User profiles
sys_group	User groups
sys_user_role	User roles
sys_dictionary	Defines fields and attributes
sys_metadata	Stores metadata about configurations
sys_properties	Global system properties
sys_audit	Audit logs

## Importing Data:

Import Process Overview:

To bring data into ServiceNow, follow these steps:

### Step 1: Prepare Your Data

- Format the data in CSV, Excel, or XML.

- Include necessary fields like employee\_id, name, department, etc.

## Step 2: Create an Import Set

Progress	
Name	ImportProcessor
State	Complete
Completion code	Success
Message	Processed: 4, inserts 4, updates 0, errors 0, empty and ignored 0, ignored errors 0 (0:00:01.178)

### Next steps...

[Import sets](#) Go to the import sets for this data load

[Loaded data](#) Go to the newly imported data inside the staging table: u\_employee\_training

[Create transform map](#) Create a transform map for the newly staged data

[Import log](#) View the import log

- Go to System Import Sets > Load Data.
- Upload your file and create a new Import Set Table.

### Step 3: Create a Transform Map

The screenshot shows the 'Table Transform Map' configuration page in ServiceNow. The left sidebar contains a navigation menu with options like 'import set', 'Load Data', 'Create Transform Map', 'Run Transform', 'Administration', 'Data Sources', 'Robust Import Set Transform...', 'ETL Definitions', 'Transform Maps', 'Scheduled Imports', 'Execution Contexts', 'Advanced', 'Import Sets', 'Concurrent Import Sets', 'Concurrent Import Set Jobs', and 'Multi Import Sets'. The main content area is titled 'Table Transform Map New record' and includes the following fields:

- \* Name: Employee Transform
- \* Source table: Employee Training (u\_employ...)
- Application: Global
- Created: (empty field)
- \* Target table: Employee Training Records (u...)
- Order: 100
- Run script: ☐
- Active: ☒
- Run business rules: ☒
- Enforce mandatory fields: No
- Copy empty fields: ☐
- Create new record on empty coalesce fields: ☐

A 'Submit' button is located at the bottom left of the form.

The screenshot shows the 'Table Transform Map' configuration page in ServiceNow, specifically the 'Field Maps' tab. The page displays a table with 4 rows mapping source fields to target fields. The 'Coalesce' column is set to 'false' for all rows. The table is titled 'Table Transform Map First Employee' and includes a 'Create new record on empty coalesce fields' checkbox. The 'Field Maps' tab is selected, and the 'Transform Scripts' tab is also visible. The table has columns for 'Source field', 'Target field', and 'Coalesce'.

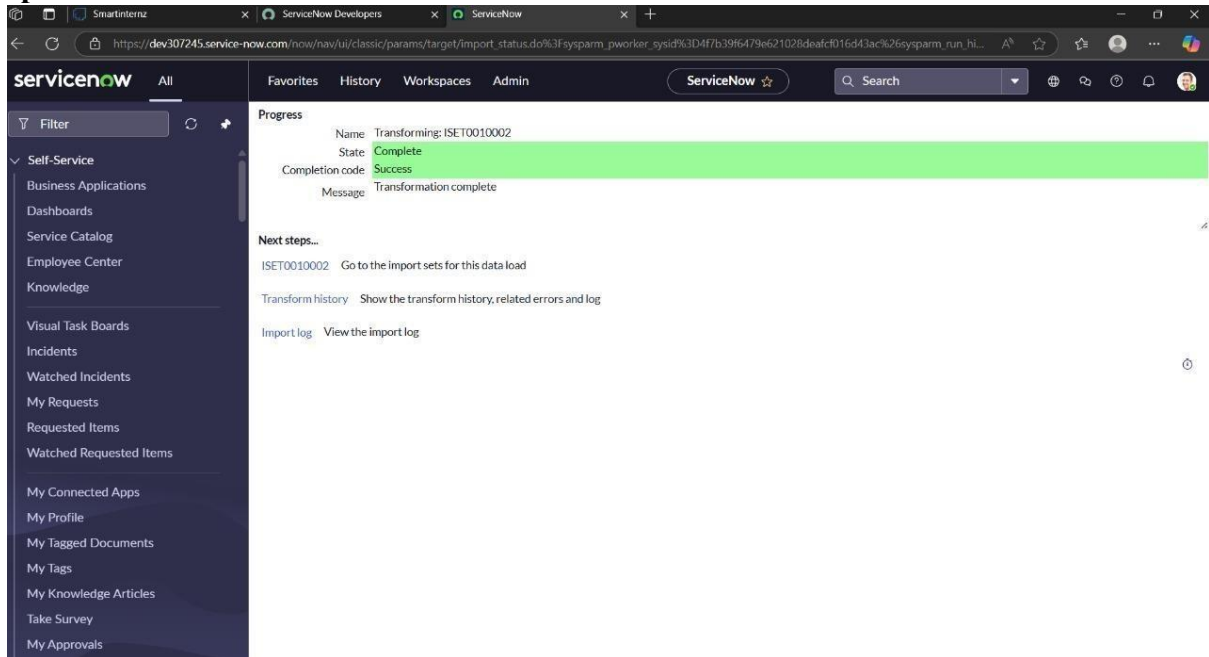
Source field	Target field	Coalesce
u_completion_date	u_completion_date	false
u_status	u_status	false
u_training_name	u_training_name	false
u_employee_email	u_employee_email	false

- Go to System Import Sets > Create Transform Map.

Choose the Import Set Table as the source and your target table (e.g., sys\_user) as the destination.

- Map source fields to target fields.

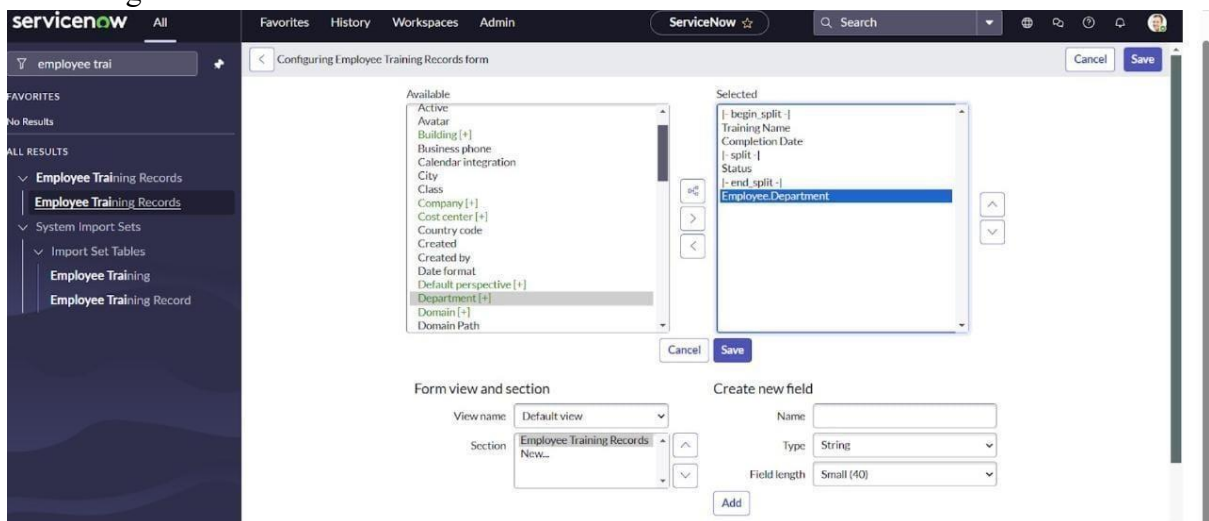
## Step 4: Run the Transform



- Go to the import set and click Transform.
- Data will be moved from the import set into the actual ServiceNow table.

## Using Dot-Walking to Access Employee Department Information:

Dot-walking is a method in ServiceNow to access fields in related tables.



Example:

If you're accessing a user (sys\_user) record and want to get the department name:  
user.department.name

- user: sys\_user record
- department: reference field to cmn\_department
- name: the name of the department Use Case in a Script or Report: **Java script** var user = gs.getUser();

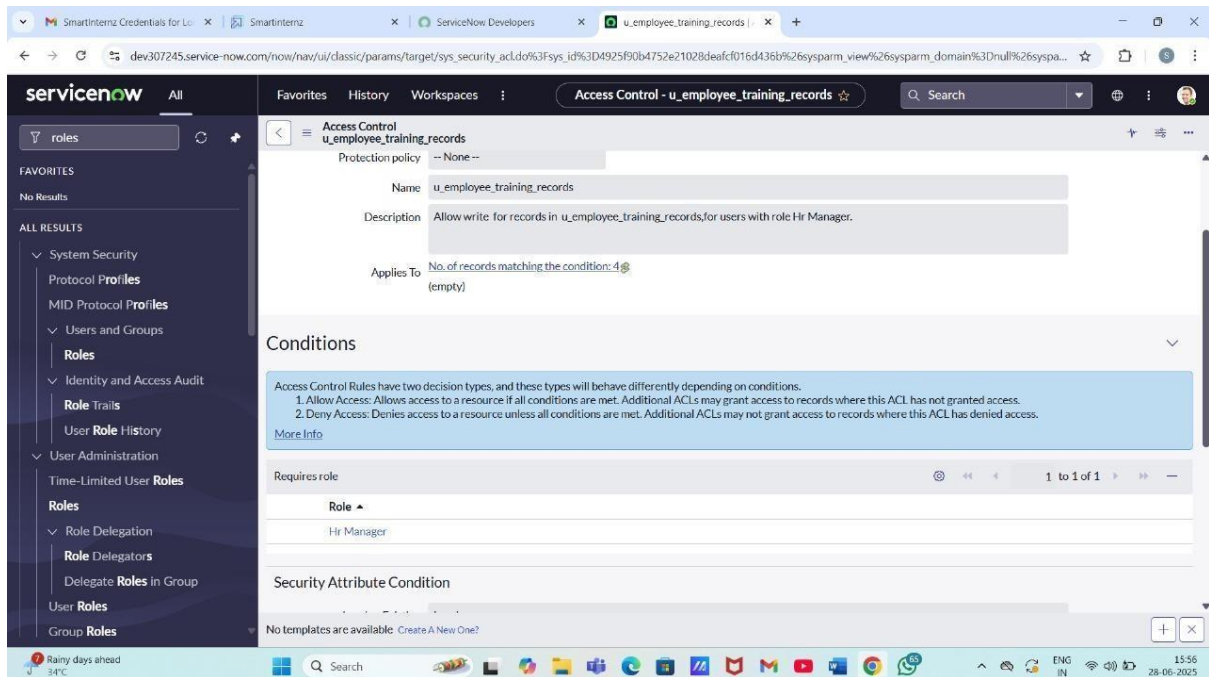
var dept = user.getRecord().

getValue('department.name'); gs.info ("Department: " + dept); Dot-walking also works in:

- Reports
- Email Templates
- Business Rules
- UI Policies

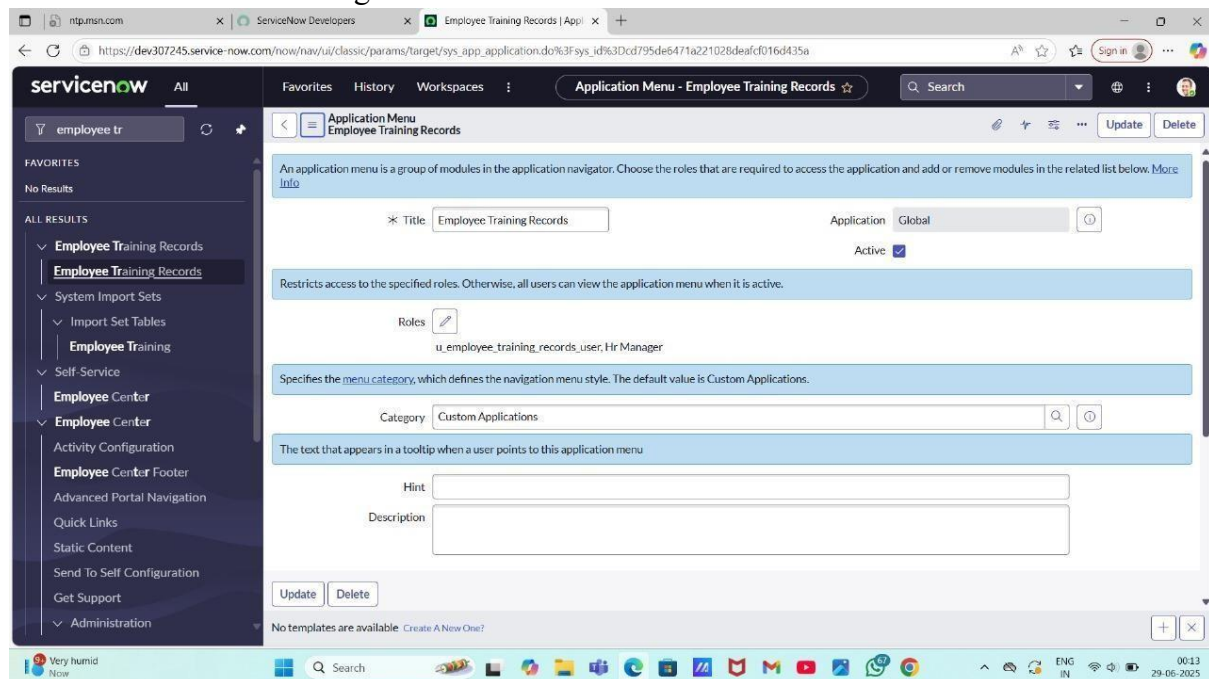
## Access Control List (ACL):

### Created new ACL



## Roles in ServiceNow:

### Created a new role HR Manager





## Elevate role:

The screenshot shows the ServiceNow interface for configuring an application menu. A modal dialog titled "Elevate role" is open, providing instructions on how to elevate a role by adding privileges. The dialog lists available roles, with "security\_admin" selected. The background shows the "Employee Training Records" application menu configuration page, which includes fields for Title, Application, and Active status. The left sidebar shows the navigation menu with "Employee Training Records" selected. The top right shows the user profile for "System Administrator".

**Elevate role**

Elevate a role by adding privileges, which end when you log out. [Learn more](#)

**AVAILABLE ROLES**

- ☒ security\_admin  
Grant modification access to High Security Settings; allow user to modify the Access Control List

[Cancel](#) [Update](#)

The screenshot shows the ServiceNow interface for configuring an access control record. The "Access Control - New Record" page is displayed, showing fields for Type, Operation, Decision Type, and Admin overrides. The "Protection policy" is set to "None". The "Name" field is populated with "Employee Training Records [u\_employee\_training\_records]". The "Description" field contains the text: "Allow read for records in u\_employee\_training\_records for user with Hr Manager role." The "Applies To" section shows a table with a single row for the role "Hr Manager". The left sidebar shows the navigation menu with "Access Control (ACL)" selected. The top right shows the user profile for "System Administrator".

**Access Control - New Record**

**Access Control**  
u\_employee\_training\_records

\* Type: record  
\* Operation: read  
Decision Type: Allow If  
Admin overrides: ☒  
Protection policy: -- None --  
\* Name: Employee Training Records [u\_employee\_training\_records]  
Description: Allow read for records in u\_employee\_training\_records for user with Hr Manager role.  
Applies To: Add Filter Condition Add OR Clause

**Conditions**

Requires role

Role
Hr Manager

**Security Attribute Condition**

ntpmn.com ServiceNow Developers u\_employee\_training\_records | A: x

https://dev307245.service-now.com/now/nav/ui/classic/params/target/sys\_security\_acl.do%3Fsys\_id%3D67df342f4712221028deafc016d436e%26sysparm\_view%3D%26sysparm\_domain...

servicenow All Favorites History Workspaces Access Control - u\_employee\_training\_records Search Update Delete

Filter

- Self-Service
- Business Applications
- Dashboards
- Service Catalog
- Employee Center
- Knowledge
- Visual Task Boards
- Incidents
- Watched Incidents
- My Requests
- Requested Items
- Watched Requested Items
- My Connected Apps
- My Profile
- My Tagged Documents
- My Tags
- My Knowledge Articles
- Take Survey

\* Type record Application Global

\* Operation write

Decision Type Allow If

Admin overrides

Protection policy -- None --

\* Name Employee Training Records [u\_employee\_training\_records] -- None --

Description Allow write for records in u\_employee\_training\_records, for user with Hr Manager role.

Applies To No. of records matching the condition: 4

Add Filter Condition Add OR Clause

-- choose field -- -- oper -- -- value --

Conditions

Access Control Rules have two decision types, and these types will behave differently depending on conditions.

1. Allow Access: Allows access to a resource if all conditions are met. Additional ACLs may grant access to records where this ACL has not granted access.
2. Deny Access: Denies access to a resource unless all conditions are met. Additional ACLs may not grant access to records where this ACL has denied access.

[More Info](#)

No templates are available Create A New One?

28°C Partly cloudy

ntpmn.com ServiceNow Developers u\_employee\_training\_records | A: x

https://dev307245.service-now.com/now/nav/ui/classic/params/target/sys\_security\_acl.do%3Fsys\_id%3D67df342f4712221028deafc016d436e%26sysparm\_view%3D%26sysparm\_domain...

servicenow All Favorites History Workspaces Access Control - u\_employee\_training\_records Search Update Delete

Filter

- Self-Service
- Business Applications
- Dashboards
- Service Catalog
- Employee Center
- Knowledge
- Visual Task Boards
- Incidents
- Watched Incidents
- My Requests
- Requested Items
- Watched Requested Items
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[More Info](#)

Requires role

1 to 1 of 1

Role

- Hr Manager
- Insert a new row...

Security Attribute Condition

Local or Existing Existing Local

Condition All of these conditions must be met:

-- choose field --

OR AND

New Criteria

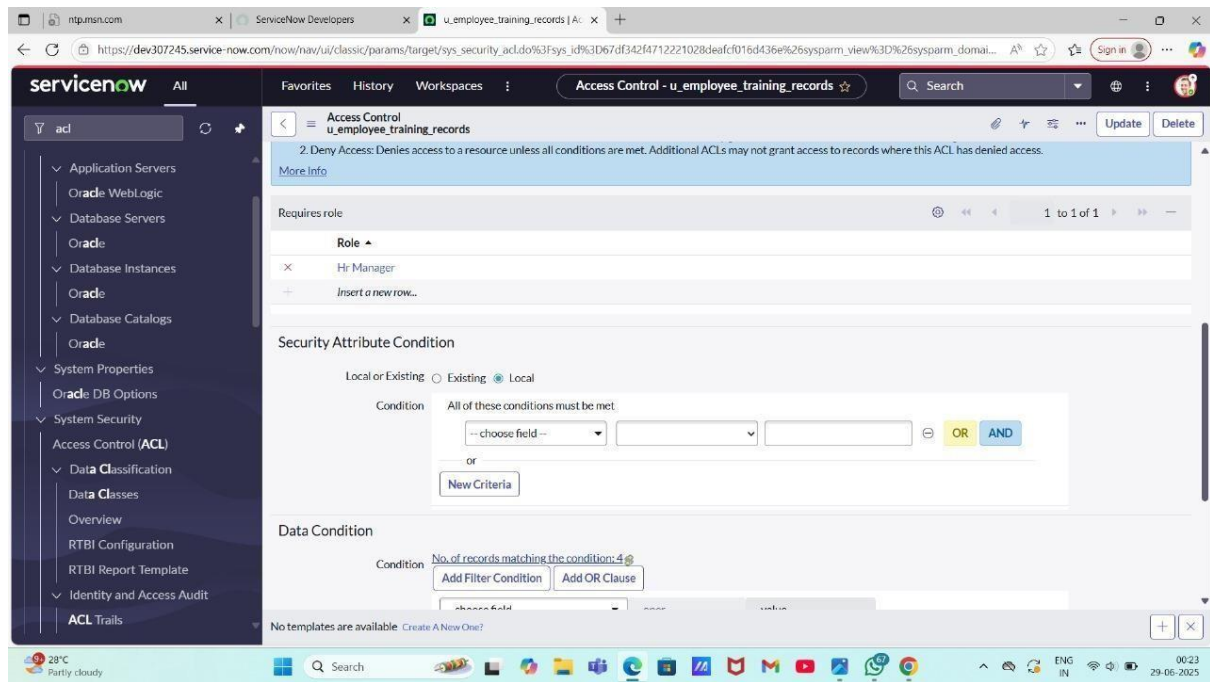
Data Condition

Condition No. of records matching the condition: 4

No templates are available Create A New One?

28°C Partly cloudy





## Results:

After importing and securing data:

- Data is structured in tables like sys\_user, cmn\_department.
- Using dot-walking, you can easily reference related data fields.
- ACLs ensure that only authorized users can see or edit sensitive data.
- Roles control what users can do, from viewing reports to importing data.

You can verify successful import by:

- Viewing records in the target table.
- Creating reports to visualize user and department info. □ Checking logs for transform errors.

servicenow All Favorites History Employee Training Rec... ☆

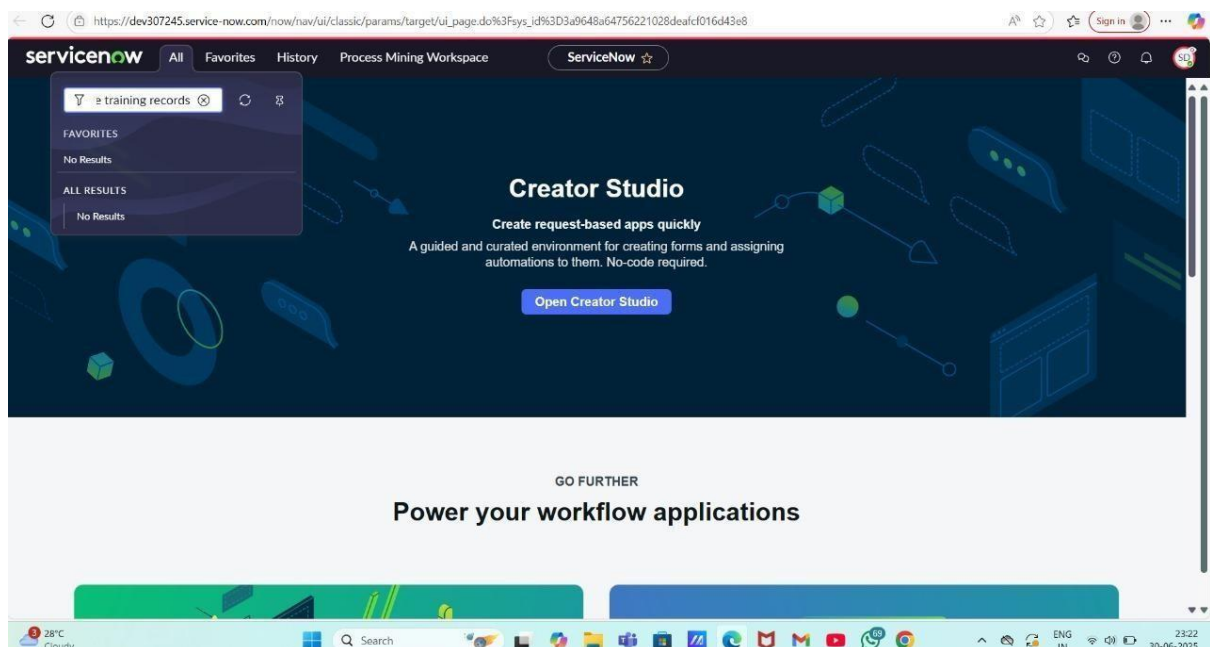
Employee TrainingRecords New record

Training Name  Status --None--

Completion Date

Department

Submit



## Conclusion:

Importing and securing data in ServiceNow ensures **data integrity, accessibility, and security**. The process involves:

- Structuring data in tables.
- Using **Import Sets** and **Transform Maps** to bring in external data.
- Leveraging **dot-walking** to navigate related records easily.
- Applying **ACLs** and **roles** to safeguard data access.

Proper data handling is critical for efficient ServiceNow operations and ensures compliance with organizational security standards.