

Project Report: Importing & Securing Data in ServiceNow

Project Title:

Importing & Securing Data in ServiceNow

Project Description:

This project focuses on automating the process of importing training data into ServiceNow, establishing relationships with employee records for efficient reporting, and implementing access control mechanisms to secure sensitive information. The project highlights core ServiceNow functionalities including data import, table creation, dot-walking, role-based access, and ACLs.

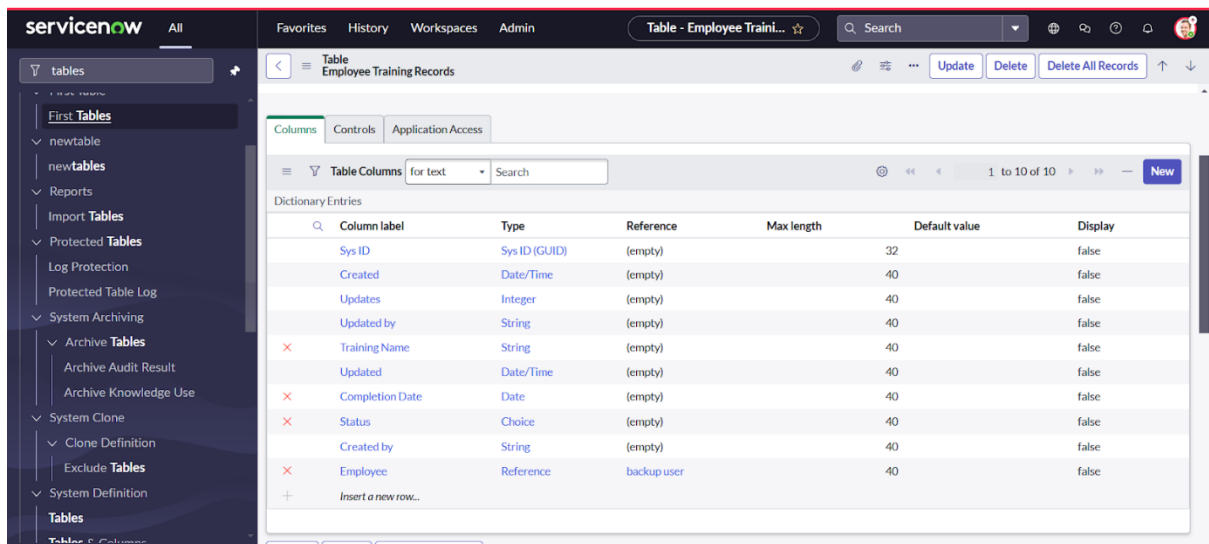
Modules & Implementation Steps

1. Table Creation

1. Open service now.
2. Click on All >> search for Tables
3. Select Tables under system security
4. Click on new
5. Fill the following details to create a new Table

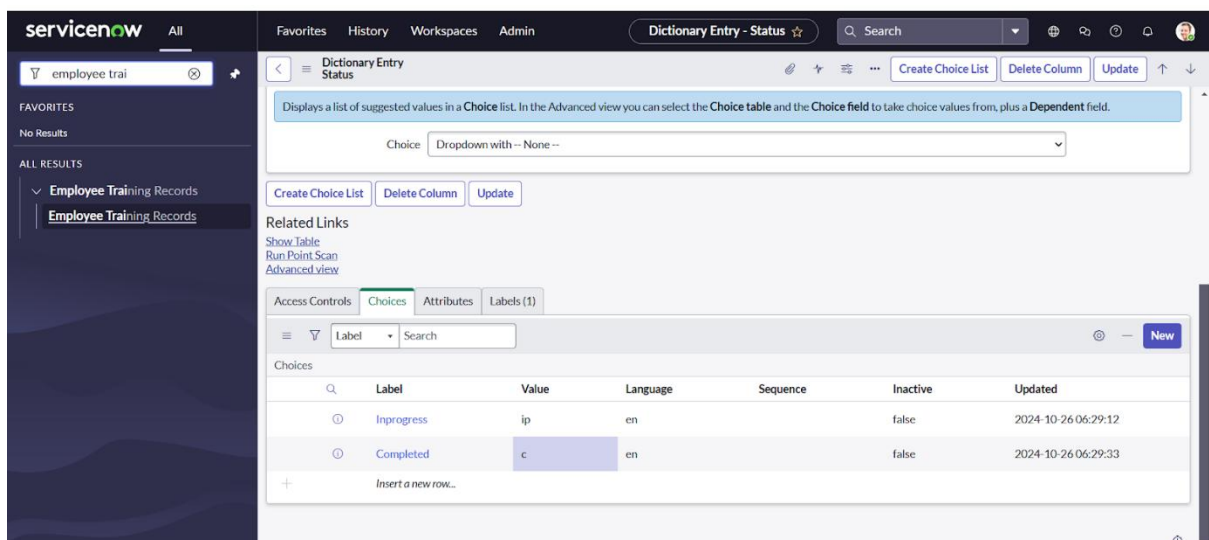
The screenshot shows the ServiceNow 'Table - New Record' form. The form is titled 'Table - New Record' and has a search bar. The left sidebar shows the 'tables' menu. The main form fields include: Label (Employee Training Records), Name (u_employee_training_records), Extends table (empty), Application (Global), Create module (checked), Create mobile module (checked), Add module to menu (Create new), and New menu name (Employee Training Records). The bottom section shows 'Table Columns' with a search bar.

6. Add the following fields:
7. Training Name (Type: String)
8. Completion Date (Type: Date)
9. Status (Type: Choice)
10. Employee (Type: Reference), (Reference field to sys_user table)



11. Click on submit

12. Click on Choice and Add to choices in the Dictionary Entry Status



2. Import Data

1. Open service now.
2. Click on All >> search for System Import Sets
3. Select Load Data and Upload File that you have already created with four fields that are:(Training Name, Completion Date, Status and Employee)
4. Label: Employee Training
5. Name: u_employee_training

Import set table

☒ Create table
☐ Existing table

* Label: Employee Training

Name: u_employee_training

Source of the import

☒ File
☐ Data source

File: Choose File Employee Training.xlsx

Sheet number: 1

Header row: 1

Submit

6. Click on submit.

Progress

Name: ImportProcessor

State: Complete

Completion code: Success

Message: Processed: 4, inserts 3, updates 0, errors 0, empty and ignored 1, ignored errors 0 (0:00:00.915)

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

7.

Progress

Name: ImportProcessor

State: Complete

Completion code: Success

Message: Processed: 4, inserts 3, updates 0, errors 0, empty and ignored 1, ignored errors 0 (0:00:00.915)

Next steps...

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

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3. Map Fields with Transform Map

1. Open Service Now
2. Click on All >> search for Transform Maps
3. Fill the following details to create a new Table

The screenshot shows the 'Table Transform Map' form in ServiceNow. The left sidebar contains navigation options like 'Load Data', 'Create Transform Map', 'Run Transform', and 'Administration'. The main form area is titled 'Table Transform Map - New record' and includes fields for Name, Source table, Application, Target table, and various checkboxes for Active, Run business rules, Enforce mandatory fields, Copy empty fields, and Create new record on empty coalesce fields. A 'Submit' button is at the bottom left.

Table Transform Map - New record

* Name: Employee Transform

* Source table: Employee Training[u_employ...]

Application: Global

Created:

* 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: ☐

Submit

4. Click on Submit.

The screenshot shows the 'Table Transform Map' form in ServiceNow, specifically the 'Field Maps' tab. The form is titled 'Table Transform Map - First Employee'. It includes a 'Filter' button and a 'Submit' button. The 'Field Maps' tab is active, showing a table with 4 rows. The table has columns for Source field, Target field, and Coalesce. The 'Field Maps' tab is selected, and the 'Transform Scripts' tab is also visible. The table shows the mapping of source fields to target fields and the coalesce status.

Table Transform Map - First Employee

Update Copy Delete

Related Links

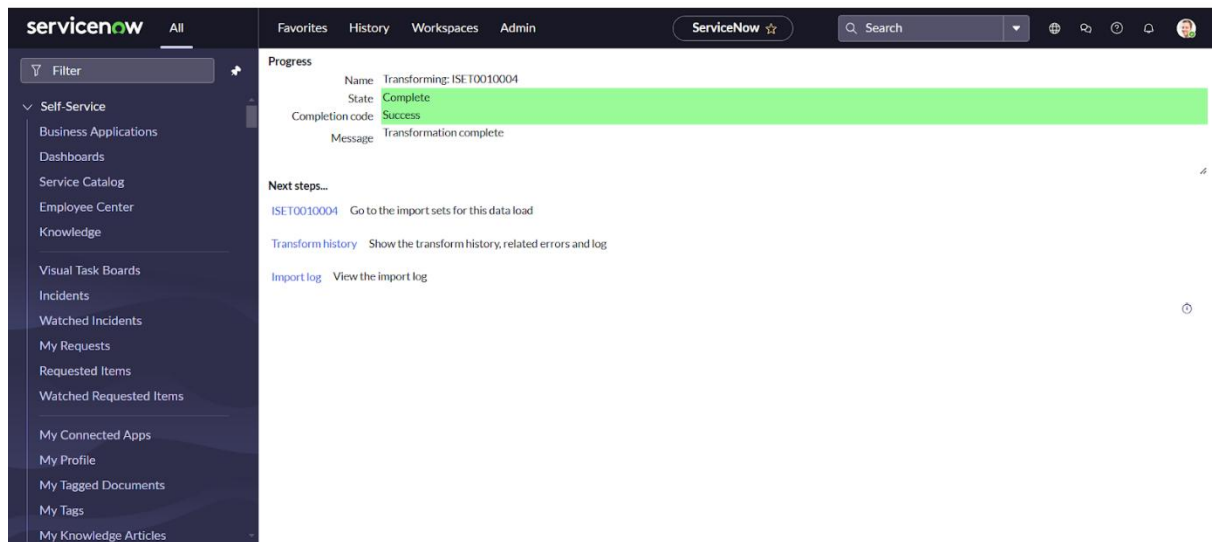
- [Auto Map Matching Fields](#)
- [Mapping Assist](#)
- [Validate Coalesce Fields](#)
- [Transform](#)
- [Index Coalesce Fields](#)
- [Run Point Scan](#)

Field Maps (4) Transform Scripts

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	false

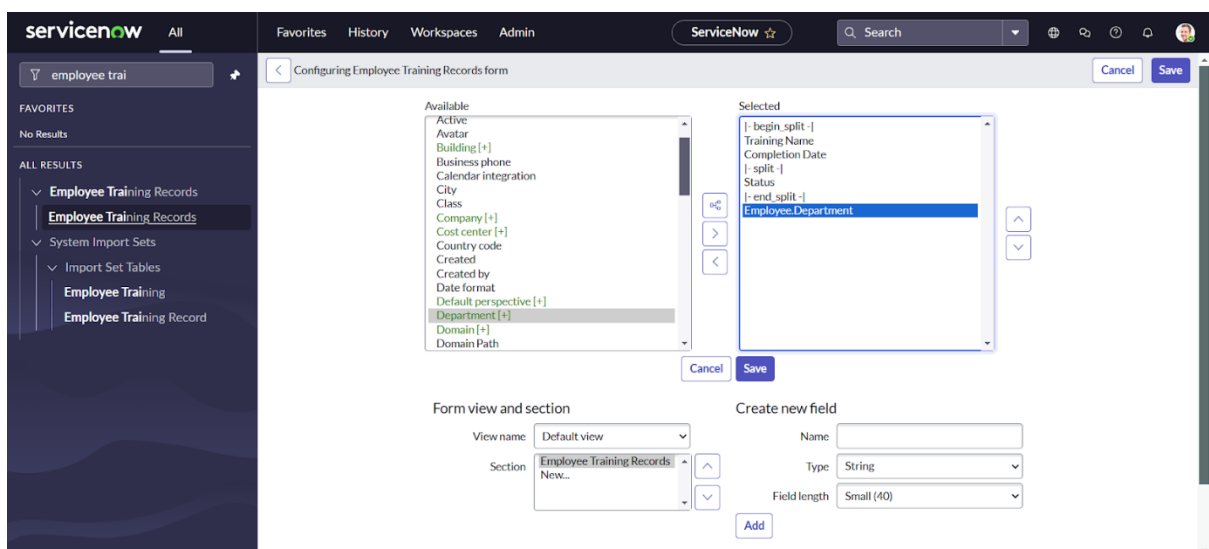
1 to 4 of 4

- 5.
6. Add Field Maps as Shown
7. Click Transform to run the import.



4. Using Dot-Walking to Access Employee Department

1. Open service now.
2. Click on All >> system definition>>List Layouts
3. Search for customer orders
4. Add the “Employee Department” field by using dot walking
5. Select the field and Save changes



6. Now you can see the field in the List view.

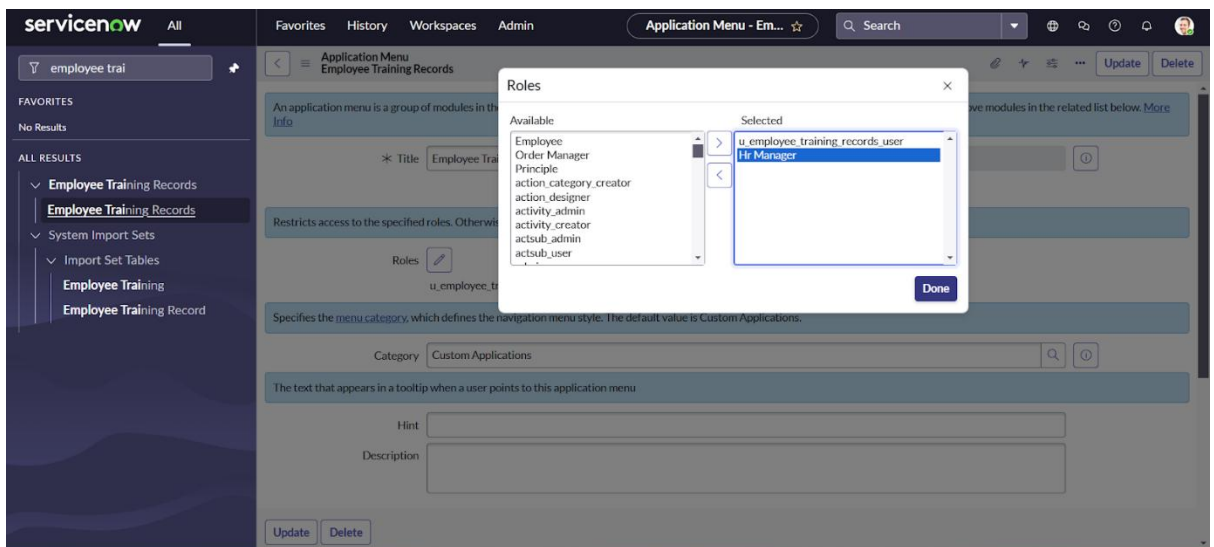
5. Access Control (ACL)

1. Open Service now
2. Click on all>>ACL>>Create New ACL
3. Define ACL (Employees)
4. Operation: Read

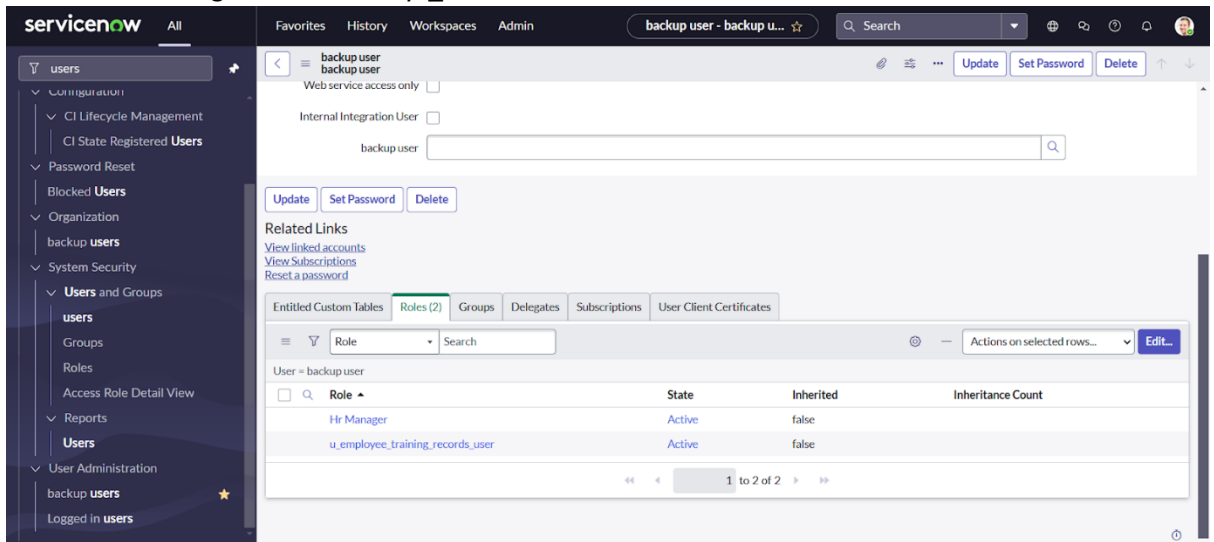
6. Role Management

1. Open ServiceNow
2. Click on all>>Roles>> create a new role : Hr Manager
3. Add in the sys_user

- 4.
5. Add this role to the Tables Application and Module

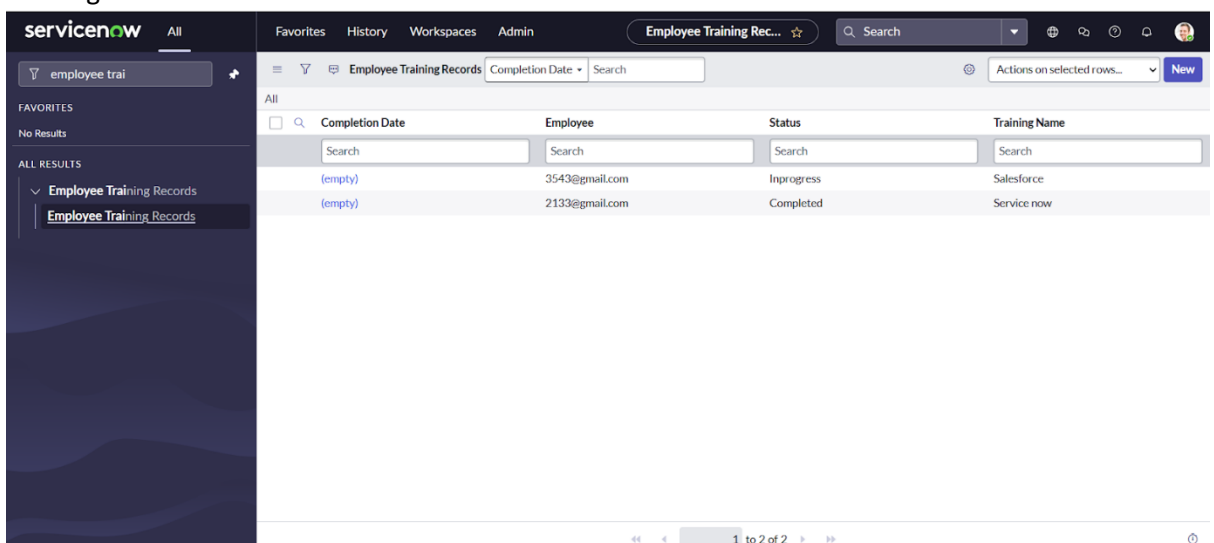


6. Add the Hr Manager Role to the sys_user

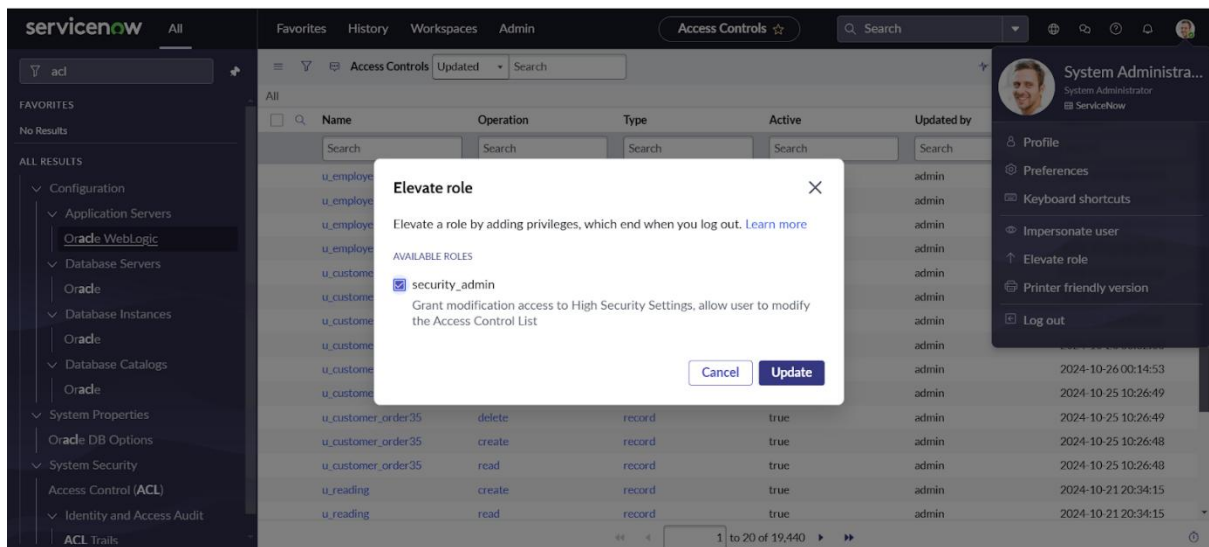


Now, you can view each employee's department information directly in the Employee

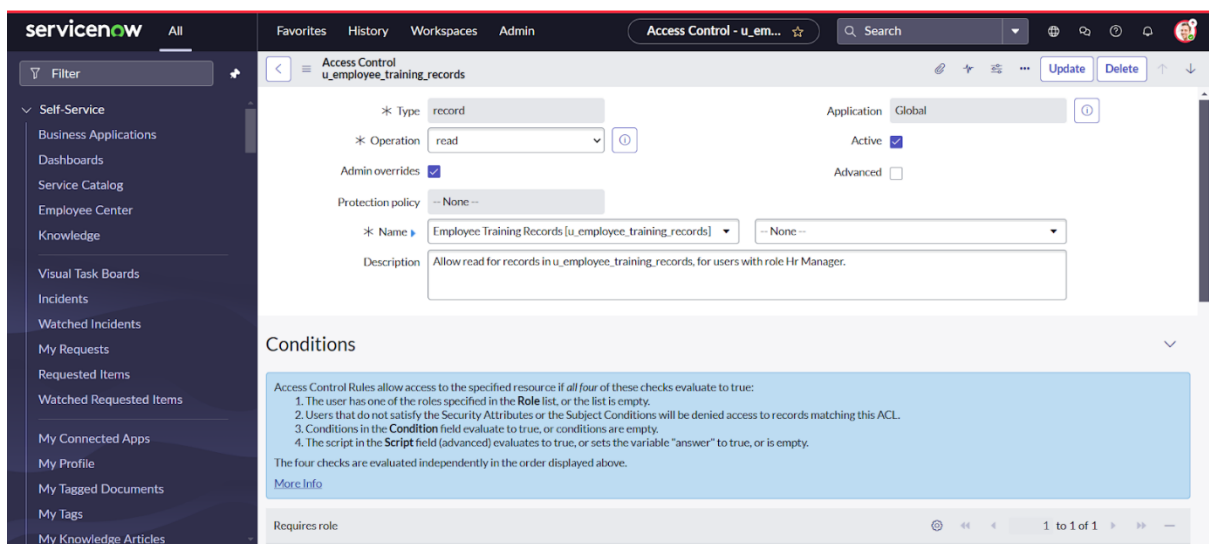
7. Training Records list view



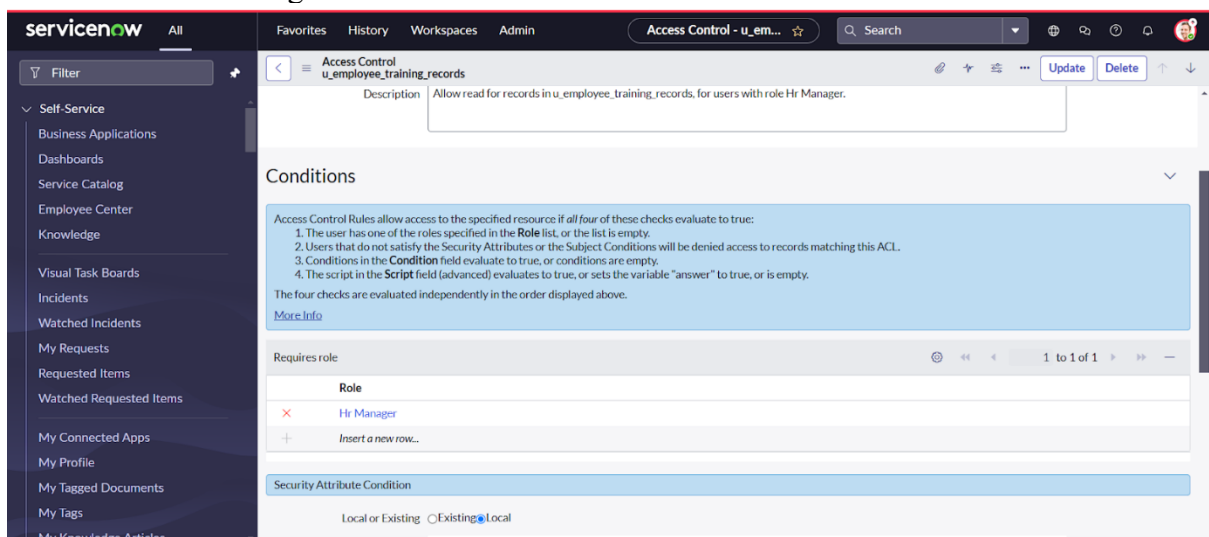
7. Elevating Role for ACL Configuration



1. Create New ACL and give Read Access to Employee Training Records Table



2. Give Hr Manager Role to the ACL



3. Create Another New ACL and Repeat the same Process to the Write Access

The screenshot shows the ServiceNow Access Control interface. The left sidebar contains navigation links: 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, and My Knowledge Articles. The main content area is titled 'Access Control - u_employee_training_records'. It includes fields for Type (record), Operation (write), Application (Global), Active (checked), Admin overrides (checked), Protection policy (None), Name (Employee Training Records [u_employee_training_records]), and Description (Allow write for records in u_employee_training_records, for users with role Hr Manager). Below these fields is a 'Conditions' section with a blue box containing the following text: 'Access Control Rules allow access to the specified resource if all four of these checks evaluate to true: 1. The user has one of the roles specified in the Role list, or the list is empty. 2. Users that do not satisfy the Security Attributes or the Subject Conditions will be denied access to records matching this ACL. 3. Conditions in the Condition field evaluate to true, or conditions are empty. 4. The script in the Script field (advanced) evaluates to true, or sets the variable "answer" to true, or is empty. The four checks are evaluated independently in the order displayed above. [More Info](#)'. At the bottom, there is a 'Requires role' field and a pagination indicator '1 to 1 of 1'.

8. Testing Results

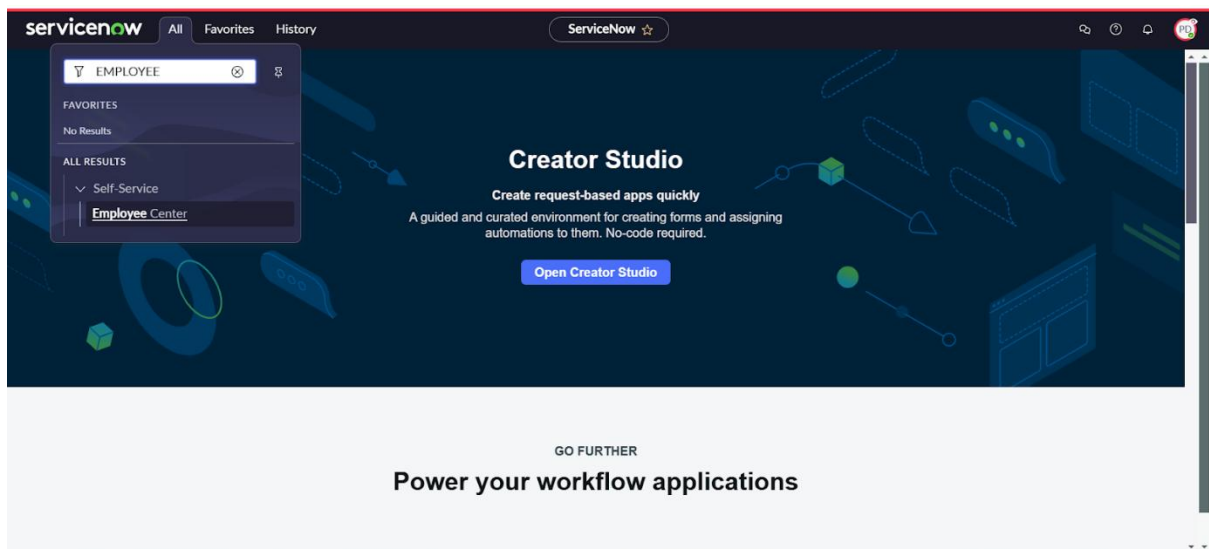
1. Impersonate the sys_user and Search Employee Training Records
2. Now You can see and edit the Fields

The screenshot shows the ServiceNow Employee Training Records table. The table has columns: Completion Date, Employee, Status, and Training Name. There are two rows of data.

Completion Date	Employee	Status	Training Name
2024-10-27	Abel Tutor	Inprogress	full stack java
2024-12-31	Abel Tutor	Inprogress	Full Stack Java

The screenshot shows the ServiceNow interface for the 'Employee Training Records' form. The header includes the ServiceNow logo and navigation tabs: 'All', 'Favorites', and 'History'. The current record is 'Employee Training Rec...' with a star icon. Below the header, there are input fields for 'Training Name', 'Completion Date', and 'Department'. A 'Status' dropdown menu is set to '-- None --'. A 'Submit' button is located in the top right corner. The main content area is empty, with a 'Submit' button in the bottom left corner.

3. Impersonate the other User you cannot See the Table



Conclusion

This project demonstrated the essential process of importing data into ServiceNow using Import Sets, leveraging dot-walking to access and utilize related table data efficiently, and applying Access Control Rules (ACLs) to enforce robust data security. By combining these core functionalities, we ensured accurate data integration, streamlined data relationships, and protected sensitive information through role-based access control.