

# Importing & Securing Data in ServiceNow

## Project Documentation

### 1.Introduction

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- **Project Name:** Importing & Securing Data in ServiceNow
- **Team ID:** LTVIP2026TMIDS76629
- **Team Leader:** Gorusu Prabhas
- **Team Members:** Venkata Sri Dharani Saladi, Sagarapu Anitha, Priyanka Sharmila Nallamilli

### 2. Project Overview

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- **Objective:**  
To automate the process of importing employee data into ServiceNow and link each record to an employee, while pulling additional details (like department) using dot walking, and securing the data access using ACLs and role-based permissions.
- **Description:**  
This project focuses on enabling secure and structured data handling within ServiceNow. It demonstrates how employee records can be imported, transformed, connected, and presented dynamically using platform features like transform maps, dot-walking, and ACL (Access Control Lists). The system also ensures proper access segregation based on user roles, making it ideal for real-time enterprise environments where security and efficiency are critical.
- **Key features:**

Features	Description
Data Import & Mapping	Imports employee data from external sources using Import Sets & Transform Maps.
Dot-Walking	Automatically pulls related fields like Department from linked user records.
Access Control (ACL)	Restricts field/table-level access based on user roles.
Role-Based Access Management	Defines different permissions for admin, HR, and IT users.
Custom Tables and Fields	Creates tailored data structures to store employee and training data.
Dynamic Reporting	Enables filtered and department-wise reporting using imported data.
Testing with User Impersonation	Verifies data visibility/editability using impersonated user sessions.
Scalability and Performance	Designed to handle large datasets with fast loading and secure operations.

### 3. Project Ideation Phase

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- **Project Title:** Importing & Securing Data in ServiceNow
- **Problem Statement:** Linking each record to an employee and pulling some employee details (like department) into the record for easier reporting.

### 4. Requirement Analysis Phase

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- **Tables:** Define custom table to store employee data.
- **Import Data:** Load data via Import Sets.
- **Dot-Walking:** Auto-pull department using reference field.
- **Access Control List (ACL):** Secure fields based on roles.
- **Roles:** Create HR Manager role
- **Results:** Test outcome—verify links and field population.
- **Conclusion:** Evaluate success and readiness for deployment.

## 5. Project Planning Phase

### 1. Project Timeline:

- Break your project into phases:
  - Ideation
  - Requirement Analysis
  - Design
  - Development (Import, ACL, Role's setup)
  - Testing
  - Report generation
  - Review & Conclusion

### 2. Risk Management:

Risk	Probability	Impact	Mitigation Strategy
Data import fails due to format	Medium	High	Validate CSV before import
ACLs restrict legitimate access	Low	Medium	Test roles thoroughly before deploy
Dot-walking does not auto populate	Medium	High	Script includes fallback logic

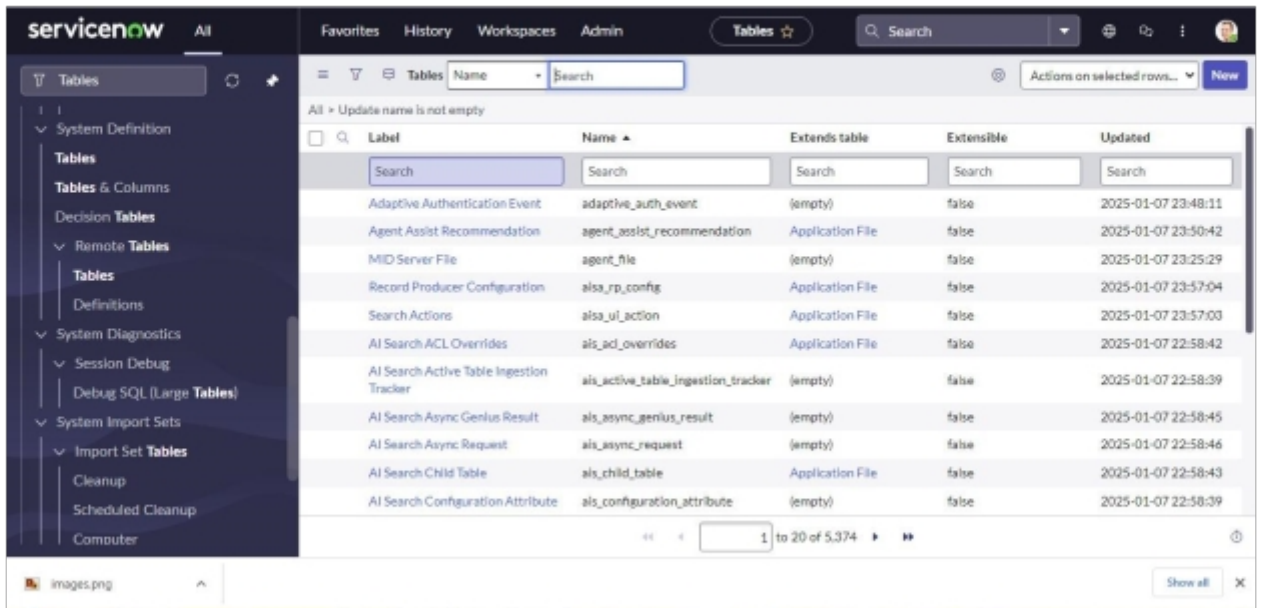
### 3. Task Allocation:

Task	Assigned To	Time Estimate	Tools Required
Import Table Setup	Developer	2 Days	ServiceNow Studio
Transform Map Configuration	Developer	2 Days	Import Set, Map Script
ACL Creation	Admin	1 Days	ACL Editor
Dot-walking Setup	Developer	1 Days	Dictionary Field Config
Reporting Dashboard	Analyst	1 Days	Report Builder

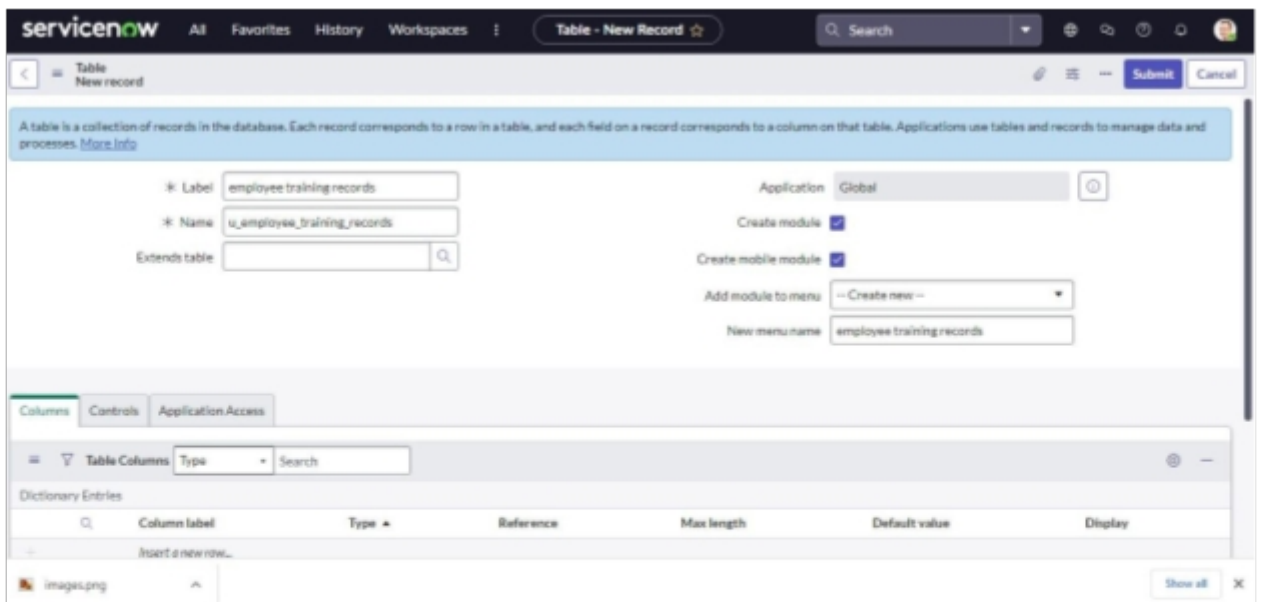
## 6. Project Design Phase

### 1. Create Table

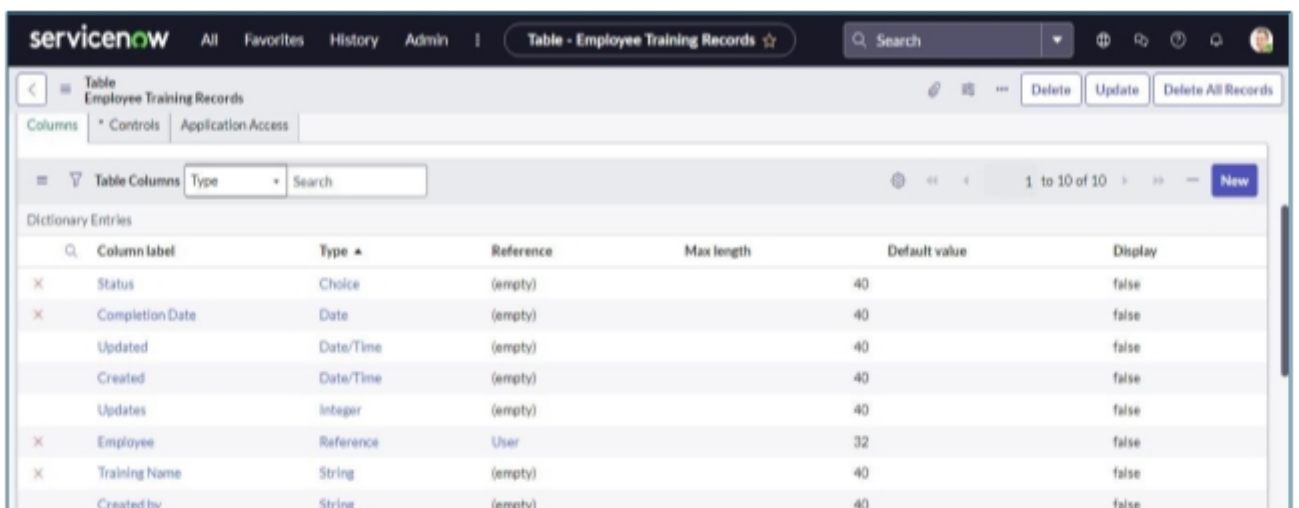
- Open service now.
- Click on **All** >> search for **Tables**
- Select Tables under **system security**
- Click on **New**



- Fill the following details to create a new Table



- Add the following fields:
- **Training Name** (Type: **String**)
- **Completion Date** (Type: **Date**)
- **Status** (Type: **Choice**)
- **Employee** (Type: **Reference**), (Reference field to **sys\_user** table)



Updated by	String	(empty)	40	false
Sys ID	Sys ID (GUID)	(empty)	32	false
+ Insert a new row...				

- Click on **submit**
- Click on Choice and Add to choices in the **Dictionary Entry Status**
- **Right click** on **Status** Field
- Select **Configure Dictionary**
- Enter **choices** under **Related list**(choices)

**servicenow** All Favorites History Admin | Dictionary Entry - Status ☆ Search

Dictionary Entry Status

Create Choice List Delete Column Update

Related Links  
[Show Table](#)  
[Run Point Scan](#)  
[Advanced view](#)

Access Controls Choices (2) Attributes Labels (1)

Label Search

Actions on selected rows... New

Label	Value	Language	Sequence	Inactive	Updated
Completed	c	en		false	2025-06-20 22:41:18
Inprogress	ip	en		false	2025-06-20 22:40:56
+ Insert a new row...					

1 to 2 of 2

## 2. Create Data

- Create XLSX sheet for Training Employee table
- Sheet fields will be:  
 Training Name  
 Completion Date  
 Status  
 Employee

employee training - Microsoft Excel

Training Name	Completion Date	Status	Employee
python	12/10/2004	completed	manonga
java	25/10/2024	in progress	manasa
MERN	4/11/2023	completed	poojitha
HTML	14/06/2022	in progress	poojitha valli
DSA	13/26/2023	completed	Aswini

## 3. Importing Data

- Open **ServiceNow** → search for **System Import Sets**
- Select **Load Data** and **Upload File** that you have already created.
- **Label:** Employee Training
- **Name:** u\_employee\_training

The screenshot shows the 'Load Data' page in ServiceNow. The left sidebar is expanded to 'System Import Sets' > 'Load Data'. The main form is titled 'Load Data' and has a 'Submit' button in the top right. The form fields are as follows:

- Import set table:** ☒ Create table, ☐ Existing table
- Label:**  (marked with a red asterisk)
- Name:**
- Source of the import:** ☒ File, ☐ Data source
- File:**
- Sheet number:**
- Header row:**
- Submit:**

- Click on **Submit**.

The screenshot shows the 'Progress' page in ServiceNow. The left sidebar is expanded to 'System Import Sets' > 'Load Data'. The main form is titled 'Progress' and shows the status of the import process. The 'State' is 'Complete' (highlighted in green) and the 'Completion code' is 'Success'. The 'Message' is 'Processed: 5, inserts 5, updates 0, errors 0, empty and ignored 0, ignored errors 0 (0:00:01.221)'. Below the progress bar, there are 'Next steps...' listed:

- Import sets:** Go to the import sets for this data load
- Loaded data:** Go to the newly imported data inside the staging table: u\_employees\_training
- Create transform map:** Create a transform map for the newly staged data
- Import log:** View the import log

- Click on **Create Transform Map**

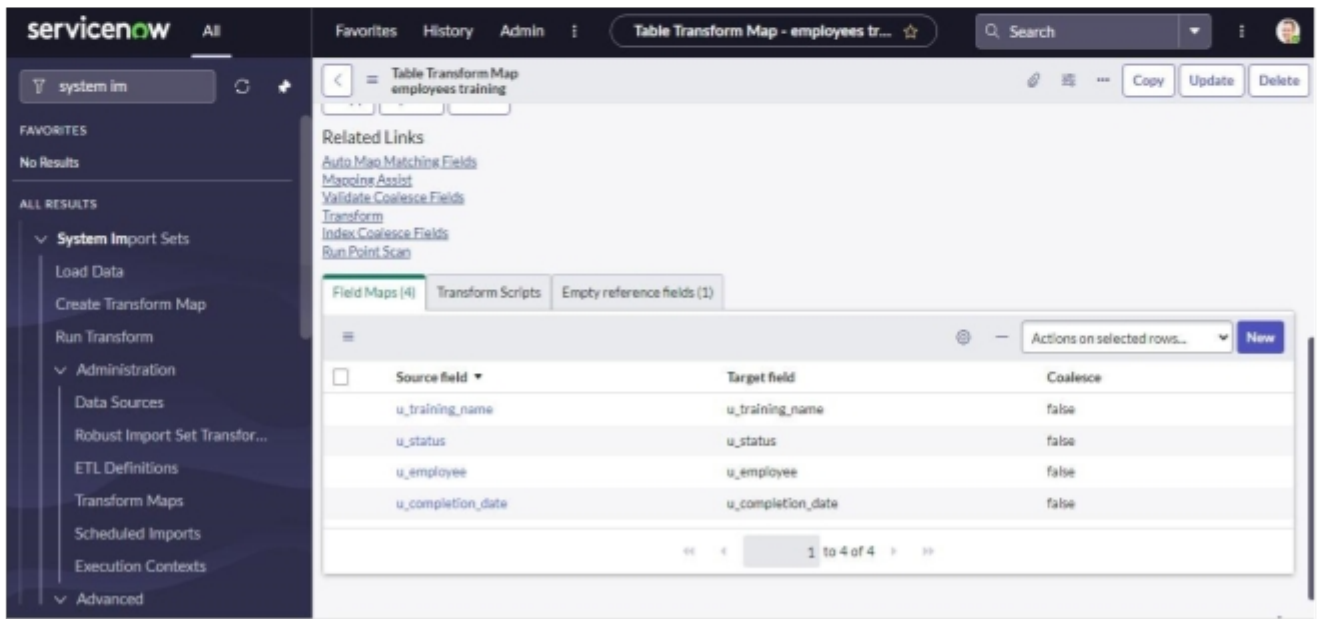
The screenshot shows the 'Table Transform Map - New Record' form in ServiceNow. The left sidebar is expanded to 'System Import Sets' > 'Create Transform Map'. The main form is titled 'Table Transform Map - New Record' and has a 'Submit' button in the top right. The form fields are as follows:

- Name:**
- Source table:**  (marked with a red asterisk)
- Active:** ☒
- Run business rules:** ☒
- Enforce mandatory fields:**
- Copy empty fields:** ☐
- Create new record on empty coalesce fields:** ☐
- Application:**
- Created:**
- Target table:**  (marked with a red asterisk)
- Order:**
- Run script:** ☐
- Submit:**

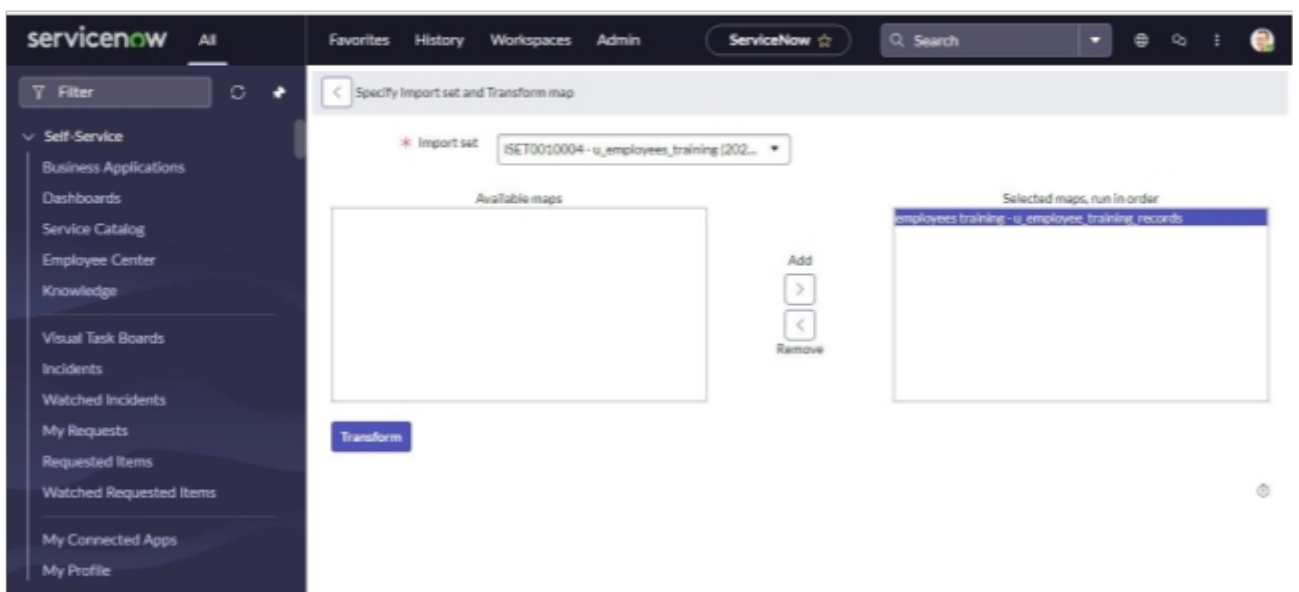
Below the form, there are 'Related Links' listed:

- [Auto Map Matching Fields](#)
- [Mapline Assist](#)

- Give **Name** and **Target Table** Name to store the sheet data



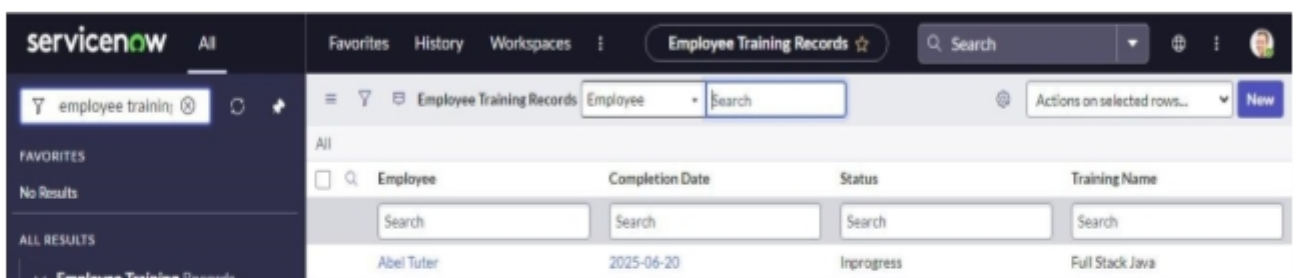
- Click On **Submit**
- Click on **Run Transform**



- Click on **Transform**

#### 4. Dot-Walking

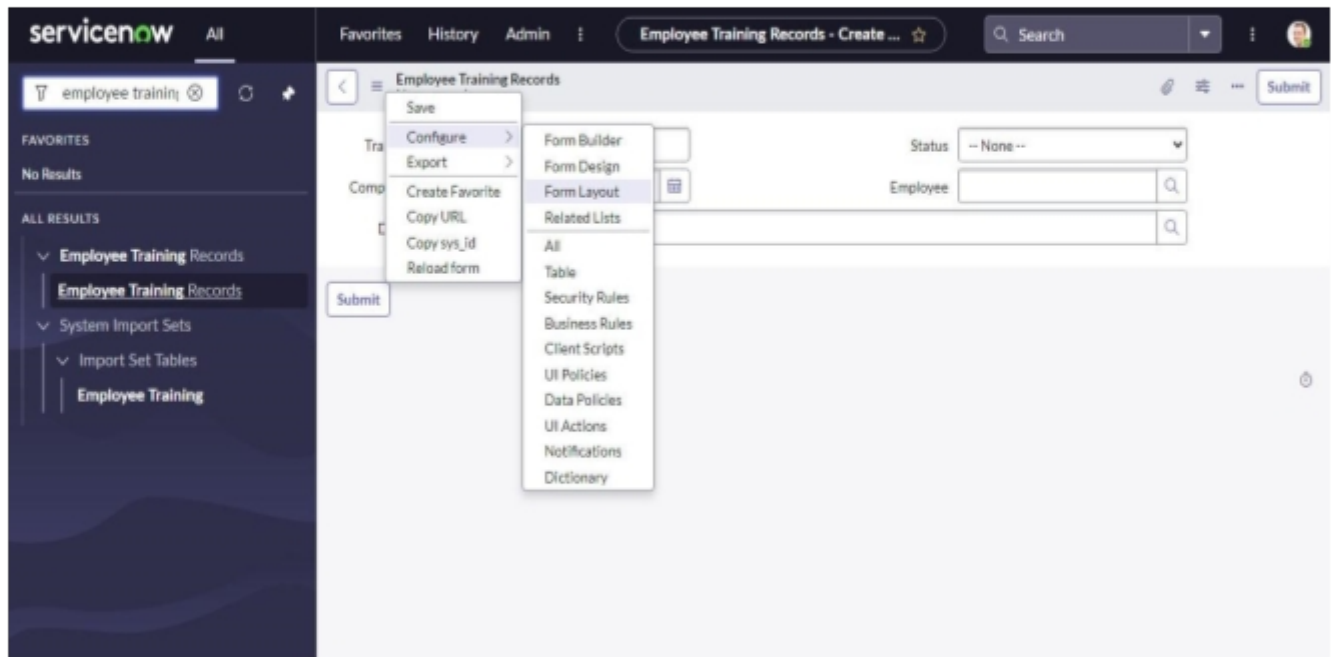
- Using “**Dot Walking**” To Access Employee Department Information.
- Click on **All** >> **Search** the **employee training records** table.
- Click on **New**, the form will open



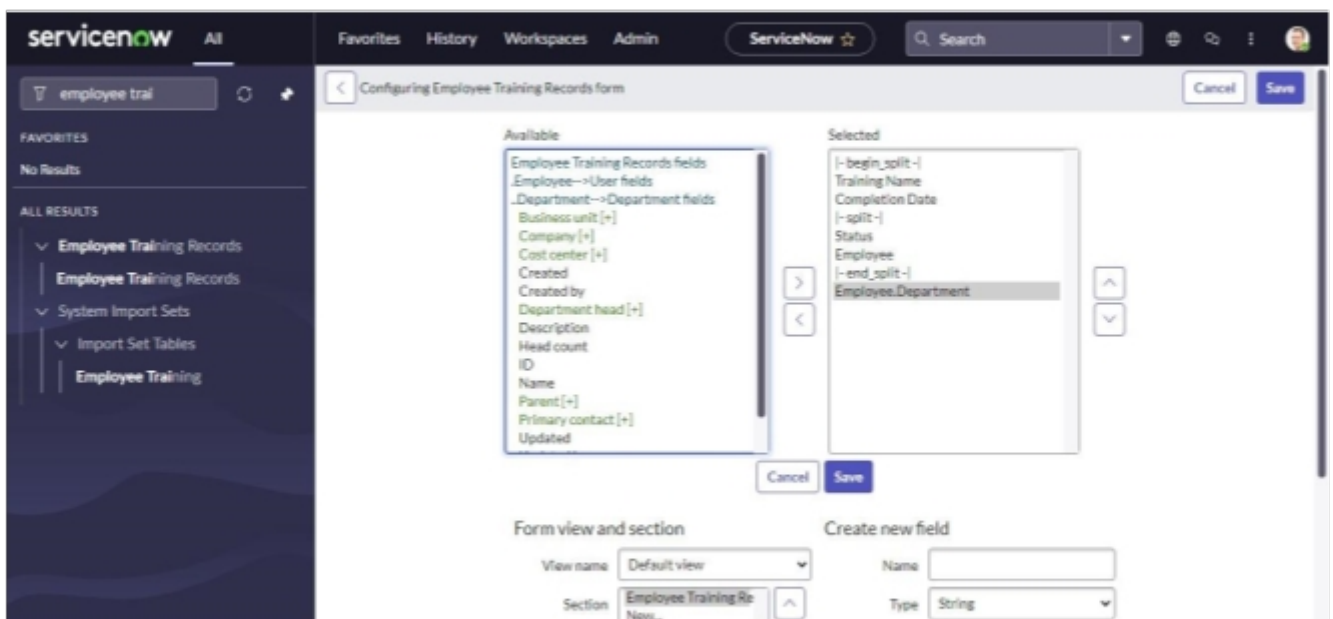




- Go to the **Form Context Menu**>>**Configure**>>**Form Layout**



- Search for customer orders
- Add the **“Employee Department”** field by using dot walking • Select the field and **Save** changes



- Now you can see the field in the **Form view**.

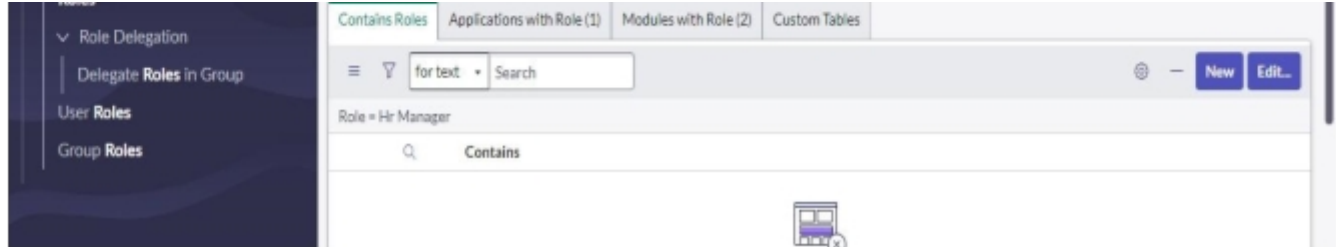
## 5. Access Control List (ACL)

- To add ACL we have to do **Elevate Role** to the “**security\_admin**”
- Click on **All>>ACL>>Create New ACL**
- Define ACL (Employees)
- **Operation:** Read

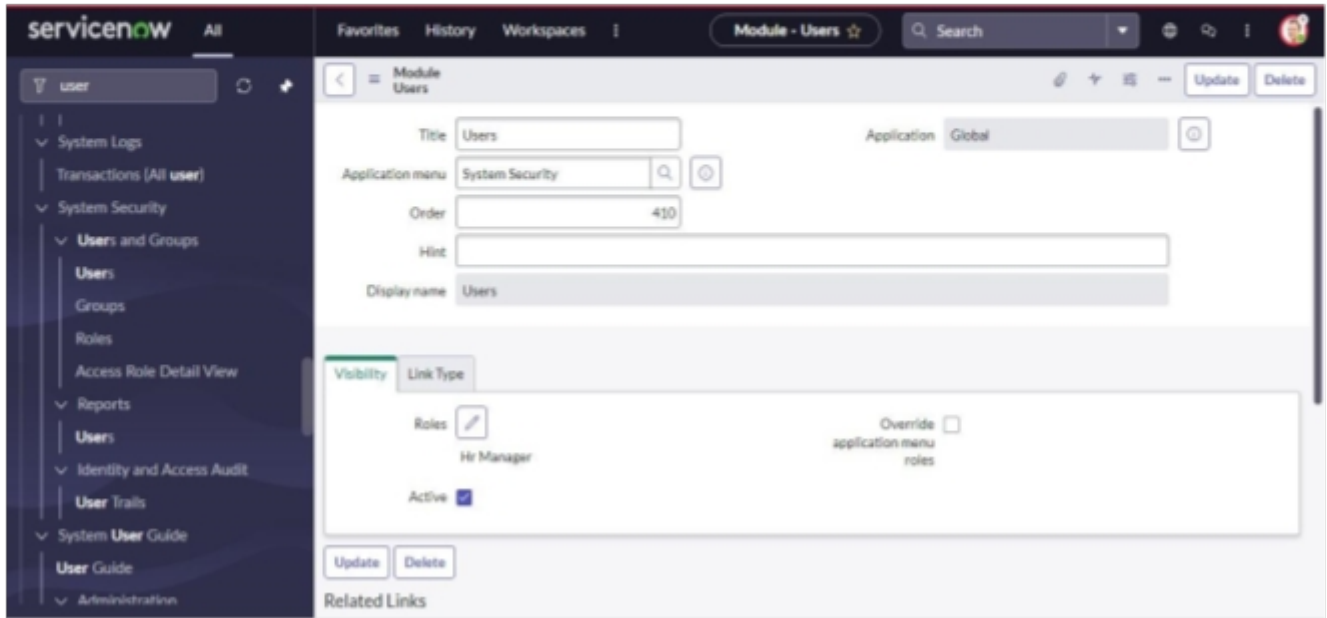
## 6. Roles

- Click on **All>>Roles>> create a New**
- **Role :** HR Manager

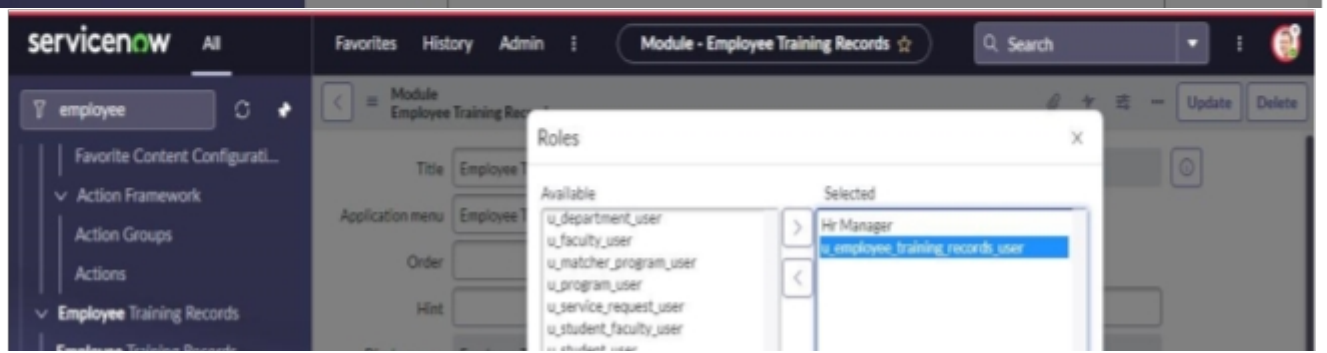
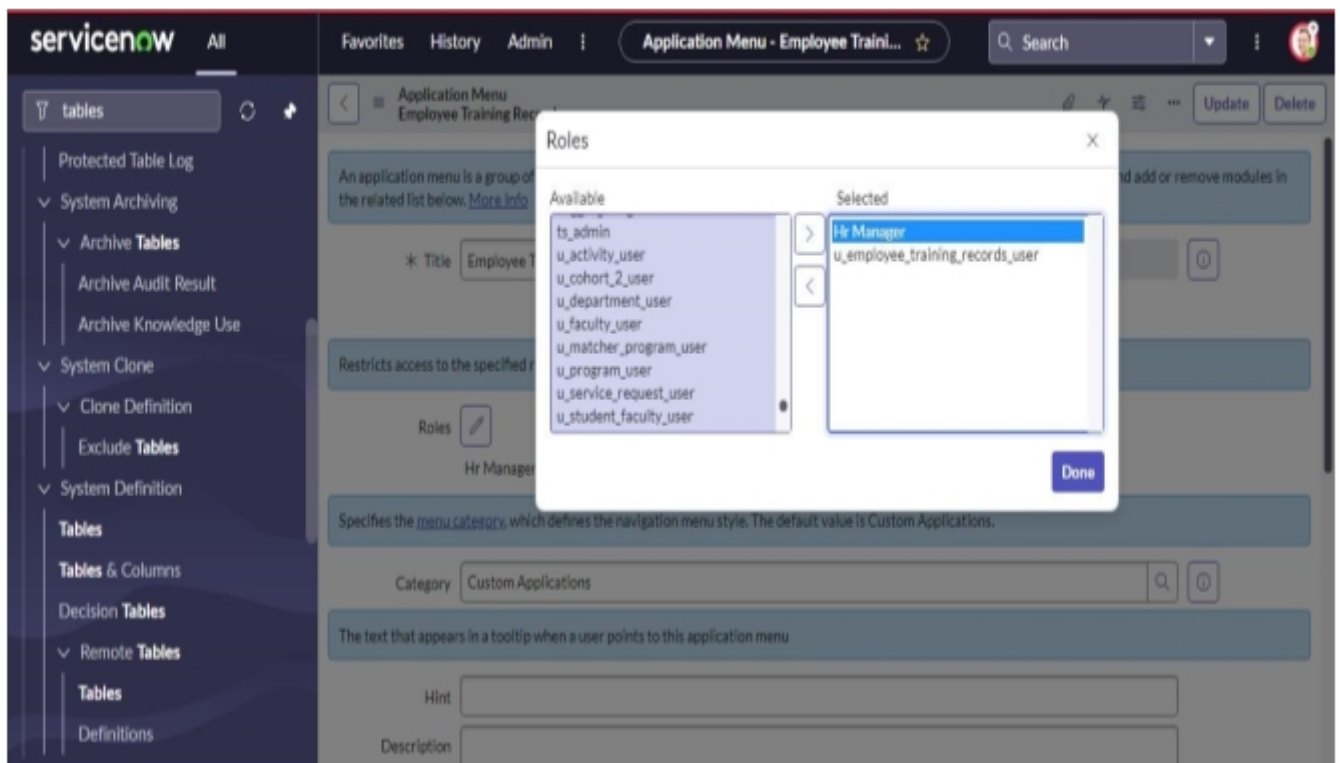


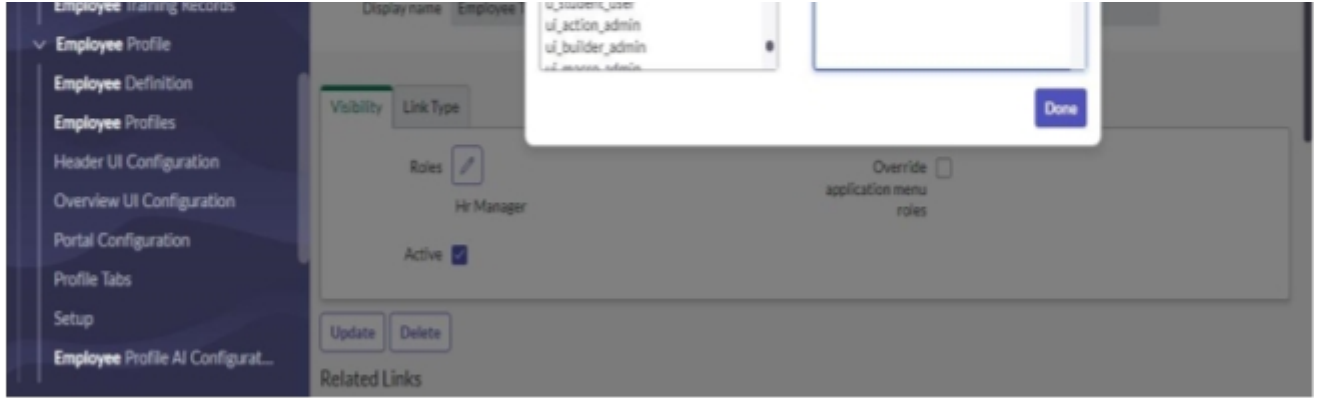


- Add that Role in the sys\_user(User) table

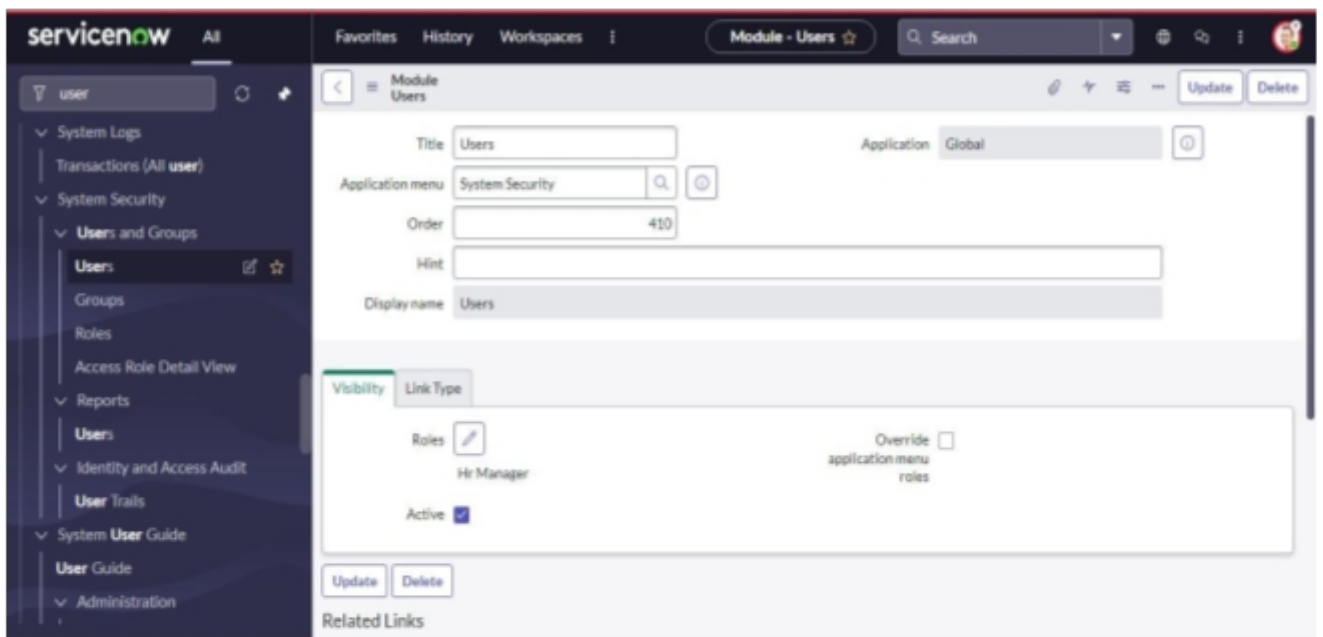


Add this Role to the Tables Application and Module

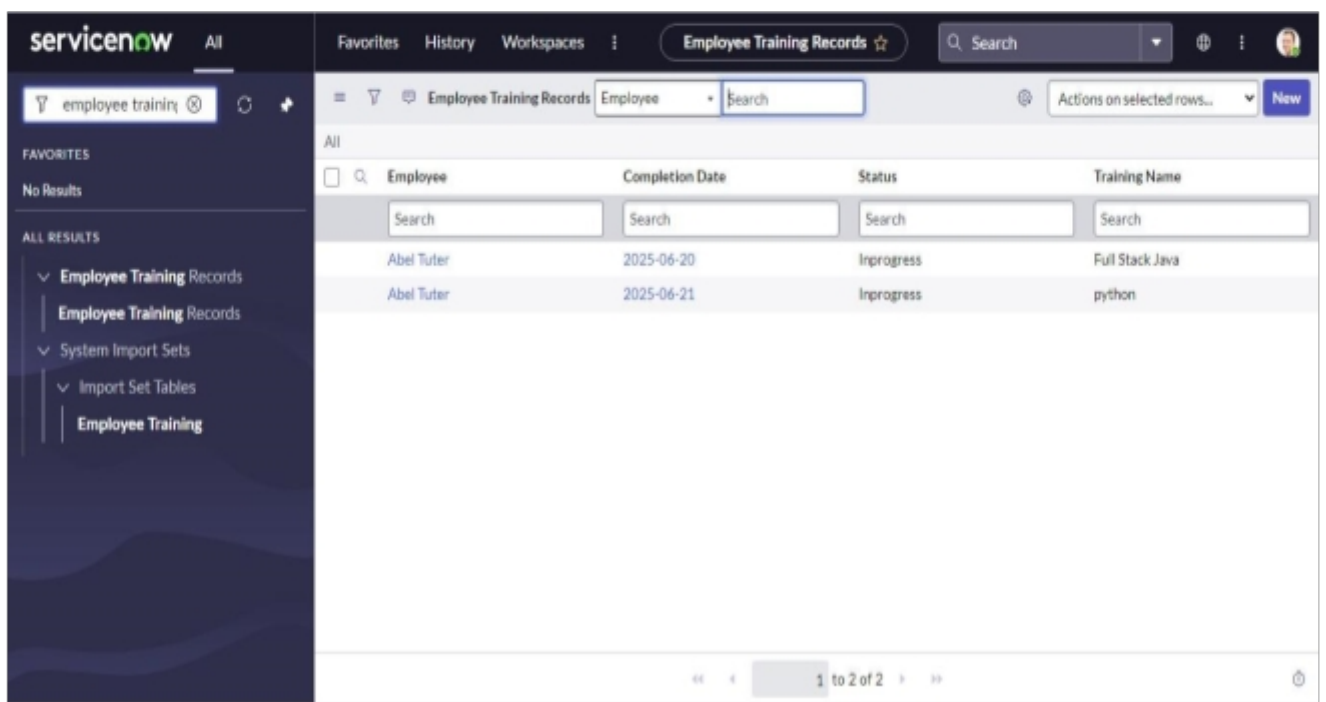




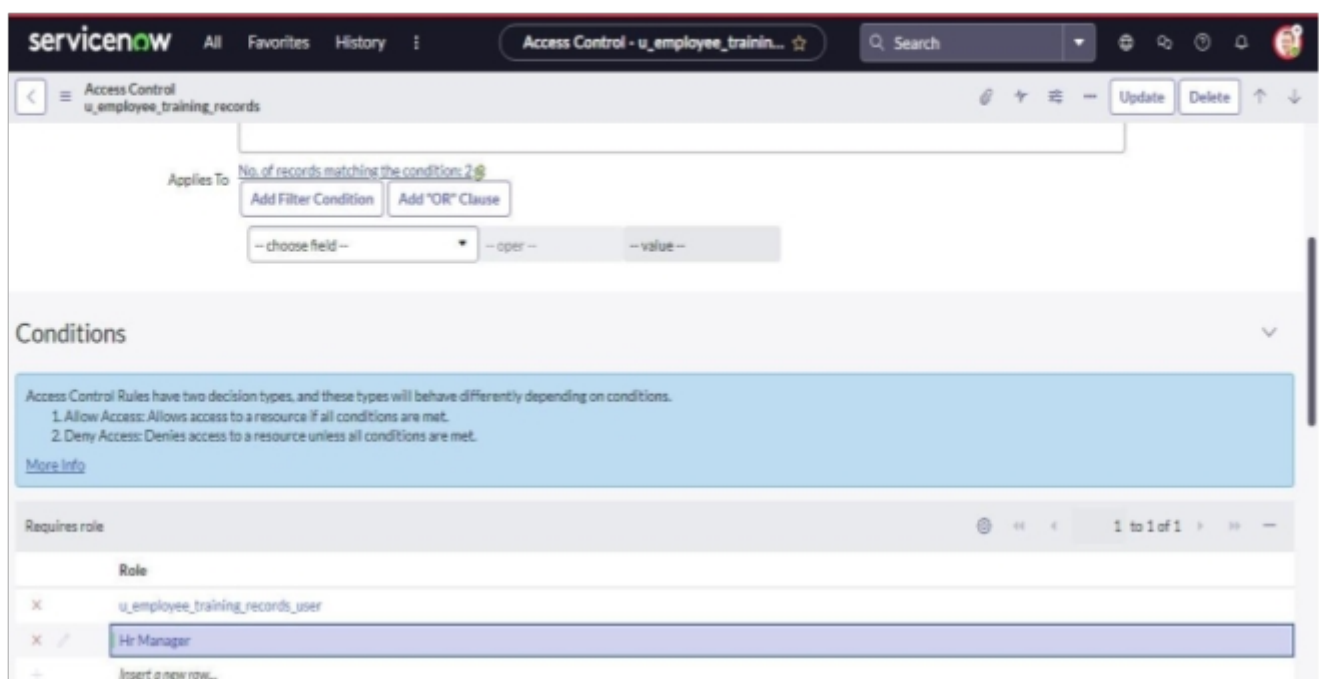
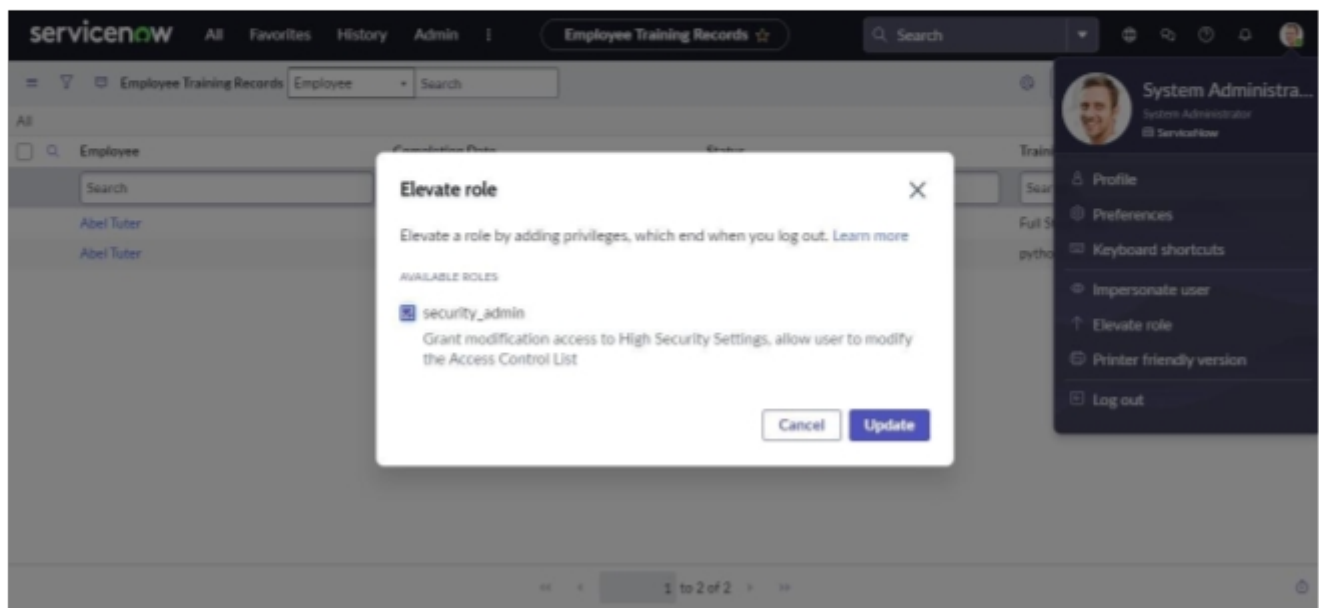
Add the **HR Manager** Role to the **sys\_user**(table)



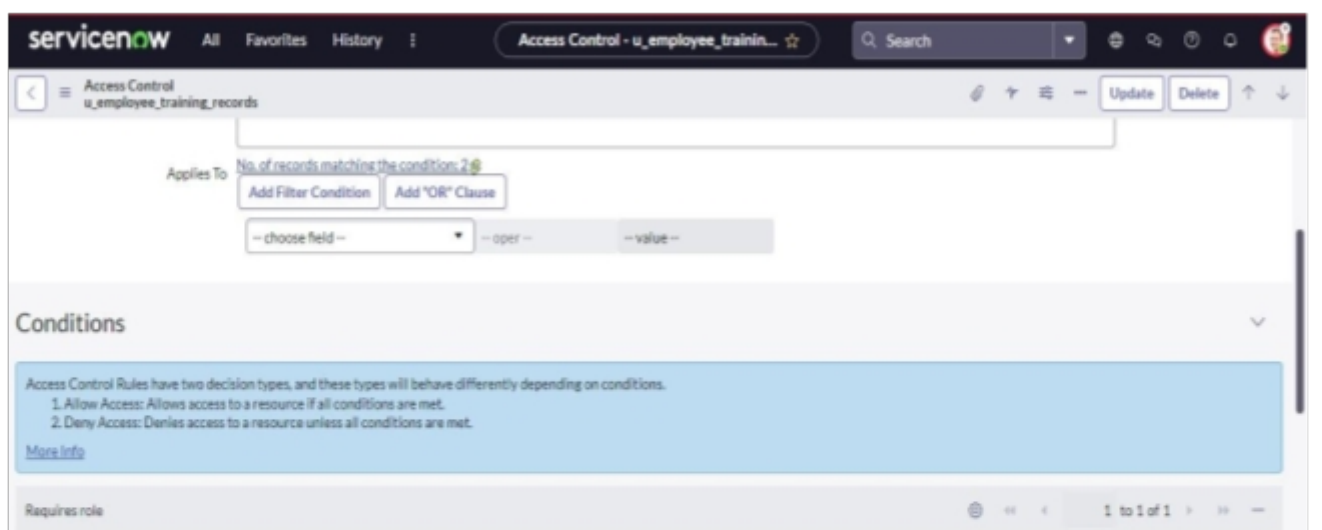
- Now, you can view each employee's department information directly in the **Employee Training Records** list view



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



- Give **HR Manager** Role to the **ACL**



Role	
u_employee_training_records_user	
He Manager	
Insert a new row...	

- Create Another **New ACL** and Repeat the same Process to the **Write** Access

Access Control - u\_employee\_trainin...

Access Control u\_employee\_training\_records

\* Type record Application Global

\* Operation write Active ☒

Decision Type Allow If Advanced ☐

Admin overrides ☒

Protection policy -- None --

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

Description Default access control on u\_employee\_training\_records

Applies To No. of records matching the conditions 2

Add Filter Condition Add "OR" Clause

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

Conditions

## 7. Performance & Functional Testing Phase

- **Impersonate** the **sys\_user** and **Search Employee Training Records** • Now you can see and **edit** the **Fields**

servicenow All Favorites History Workspaces Employee Training Records

employee training

FAVORITES No Results

ALL RESULTS

- Employee Training Records
- Employee Training Records
- System Import Sets
- Import Set Tables
- Employee Training

Employee	Completion Date	Status	Training Name
Abel Tuter	2025-06-20	Inprogress	Full Stack Java
Abel Tuter	2025-06-21	Inprogress	python

Waiting for dev220089.service-now.com...

servicenow All Favorites History Admin Employee Training Records - Create ...

employee training

FAVORITES No Results

ALL RESULTS

- Employee Training Records
- Employee Training Records
- System Import Sets
- Import Set Tables

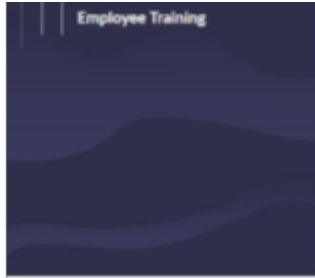
Employee Training Records New record

Training Name Status -- None --

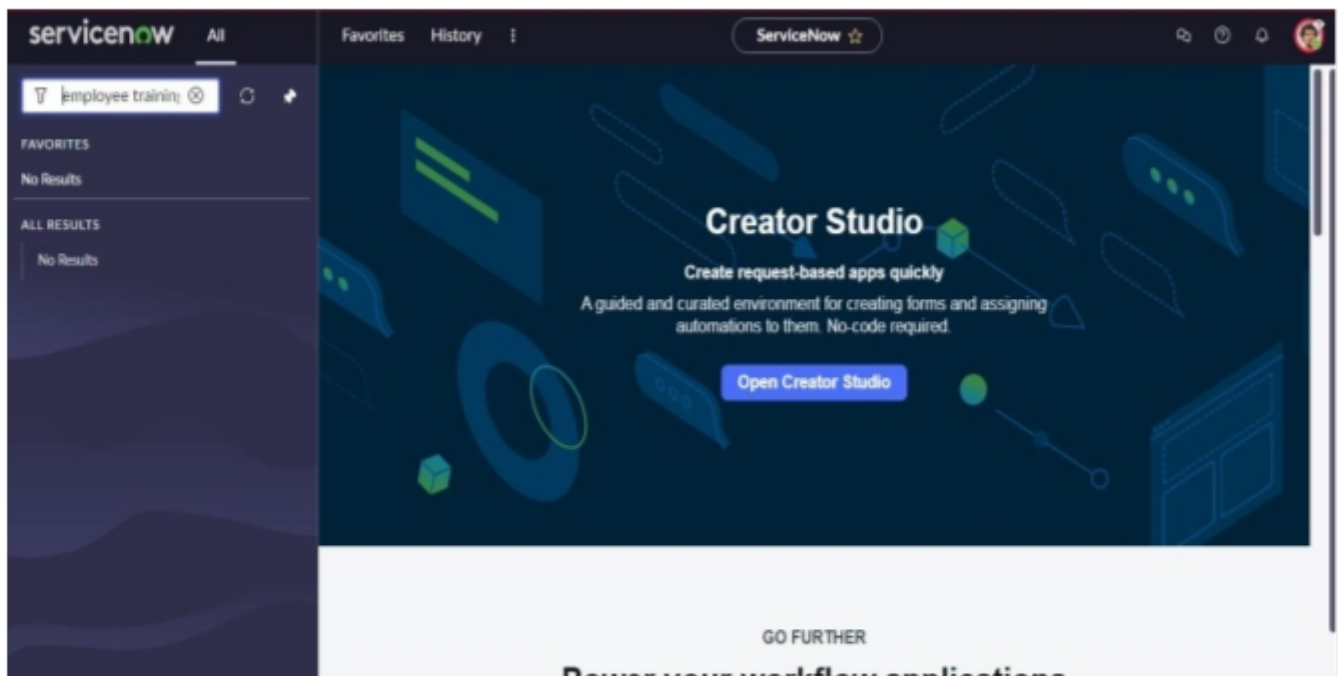
Completion Date Employee

Department

Submit



- Impersonate the other User you **CANNOT** See the Table



- Successful linking of employee records
- Dot-walking retrieves department info accurately
- ACLs protect sensitive fields
- Role-based access is enforced properly

## 8. Final Conclusion

The ServiceNow project successfully demonstrates how to **import, link, secure, and display** employee-related data using best practices including **dot-walking** and **ACLs**. This setup ensures secure, efficient, and scalable reporting for real-world enterprise needs.