

Project Documentation

Importing & Securing Data in ServiceNow

(ServiceNow Administration)

Team Details

- **Team ID:** LTVIP2025TMID30511
 - **Team Size:** 4
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1. INTRODUCTION

1.1 Project Overview

This project demonstrates the process of importing data into ServiceNow and securing it using ServiceNow's native tools and configurations. The goal is to ensure that imported data remains accurate, confidential, and accessible only to authorized users.

1.2 Purpose

The purpose of this project is to understand the data import lifecycle in ServiceNow and to implement effective security measures including Access Control Lists (ACLs), roles, and permissions to protect sensitive employee information.

2. INITIATION PHASE

2.1 Problem Statement

Managing and securing large volumes of imported data can be a challenge in enterprise environments. Without proper security measures, critical data might be exposed or misused.

2.2 Employing the Course

This project applies concepts learned in ServiceNow Administration and Security courses, focusing on best practices for data handling and access control.

3. REQUIREMENT ANALYSIS

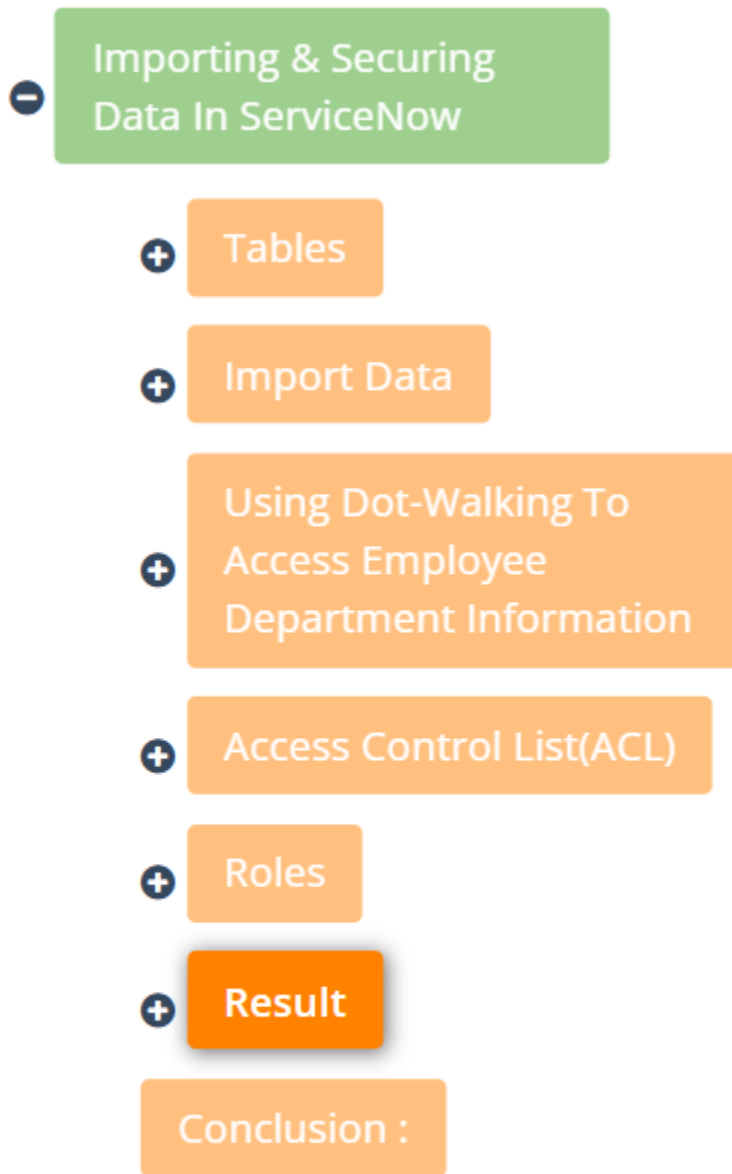
3.1 Customer Journey map

[Add screenshot here]

3.2 Solution Requirement

ServiceNow instance, Access to Import Sets, ACL configuration knowledge, Role management, and knowledge of dot-walking techniques.

3.3 User Flow Diagram



3.4 Technology Stack

- ServiceNow Platform
- JavaScript (Business Rules, Script Includes)
- Import Set Tables and Transform Maps

4. PROJECT DESIGN

4.1 Proposed Solution Fit

The project is designed to allow an admin to import a dataset containing employee information and securely control access using ACLs and roles.

4.2 Design Architecture

[Add architecture diagram screenshot here]

4.3 Solution Architecture

- Import dataset using ServiceNow Import Set tables
- Create transform maps for importing
- Apply ACLs and roles for secure access
- Use dot-walking to retrieve department info

5. PROJECT PLANNING & SCHEDULING

5.1 Project Planning

The tasks were divided into:

- Creating necessary tables
- Importing and transforming data
- Configuring roles and ACLs
- Testing security by accessing via different user roles

6. FUNCTIONAL AND PERFORMANCE TESTING

6.1 Performance Testing

Tested access controls using test users. Verified correct restriction of employee department data using dot-walking and ACLs.

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Access Control
New record

Submit

ⓘ

Warning: A role, security attribute, data condition, script or ACL control via reference fields is required to properly secure access with this ACL.

×

* Type

record

ⓘ

* Operation

write

ⓘ

Decision Type

Allow If

Application

Global

ⓘ

Active

☒

Advanced

☐

Admin overrides

☒

Protection policy

-- None --

Tables

* Name ▶

Employee Training Records [u_employe...

-- None --

Description

Applies To

No. of records matching the condition: 5

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.

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Access Control
New record

Submit

ⓘ

Warning: A role, security attribute, data condition, script or ACL control via reference fields is required to properly secure access with this ACL.

×

* Type

record

ⓘ

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☒

Protection policy

-- None --

Tables

* Name ▶

Employee Training Records [u_employe...

-- None --

Description

Applies To

No. of records matching the condition: 5

Add Filter Condition

Add OR Clause

-- choose field --

-- oper --

-- value --

Empty ACL - Select Role or Security Attribute

×

An empty or invalid Allow If ACL will completely deny access to this resource. To properly secure it, select a Role, Security Attribute or configure related records to allow access to it conditionally.

Role

Hr Manager

ⓘ

OR

Security Attribute

ⓘ

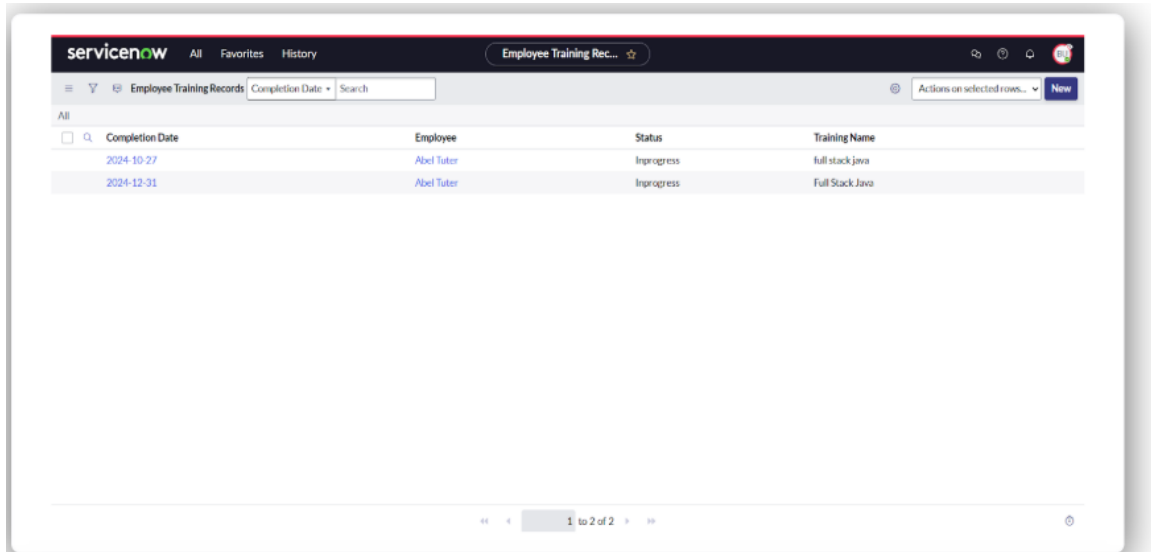
Cancel

OK

7. RESULTS

7.1 Output Screenshots

[Add multiple screenshots here: Table creation, Import sets, ACL testing, User roles, Dot-walking result]



The screenshot shows a ServiceNow interface for a table named 'Employee Training Records'. The table has four columns: 'Completion Date', 'Employee', 'Status', and 'Training Name'. There are two rows of data displayed. The first row shows a completion date of '2024-10-27' for 'Abel Tutor' with a status of 'Inprogress' and training name 'full stack java'. The second row shows a completion date of '2024-12-31' for 'Abel Tutor' with a status of 'Inprogress' and training name 'Full Stack Java'. The interface includes a search bar, a 'New' button, and a pagination bar at the bottom indicating '1 to 2 of 2'.

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

8. ADVANTAGES

- **Data Integrity:** Ensures imported data is correctly transformed and stored without redundancy or corruption.
- **Improved Security:** With the use of ACLs and roles, only authorized users can access sensitive employee data.
- **Dot-Walking Efficiency:** Makes cross-table data referencing smooth, improving usability in real-time data scenarios.

9.DISADVANTAGES

- **Complex ACL Configuration:** Incorrect ACL setups can block access even for valid users, requiring deep debugging.
- **Learning Curve:** Beginners may find concepts like transform maps, roles, and dot-walking a bit complex at first.
- **Manual Setup Overhead:** Initial setup of tables, roles, and mappings is manual and can be time-consuming.

9. CONCLUSION

The project "**Importing & Securing Data in ServiceNow**" successfully demonstrates a full cycle of importing external data and securing it using built-in ServiceNow features. It emphasizes the importance of managing roles, access control lists (ACLs), and the dot-walking feature for retrieving related data such as department information. Through step-by-step implementation, the project highlights how to provide fine-grained access control and protect critical business information. The result is a structured and secure data environment inside the ServiceNow platform, meeting both functional and security requirements.

10. APPENDIX

GitHub Link:

<https://github.com/MaheshDesaboina/Importing-Securing-Data-in-ServiceNow>

Project Demo Link:

<https://youtu.be/dGDqJkvvzLU?si=ej0pRjyVrQbTPgah>