

Importing and Securing Data in ServiceNow

1. INTRODUCTION

1.1 Project Overview

The project “Importing & Securing Data in ServiceNow” focuses on managing enterprise data efficiently by importing external data into the ServiceNow platform and securely linking each record to an employee. In many organizations, data is received from multiple external sources such as Excel sheets or third-party systems. Without proper ownership and security, such data becomes difficult to manage and analyze.

This project demonstrates how ServiceNow can be used to associate each imported record with an employee and automatically fetch employee-related details such as department. By doing so, the system ensures better data organization, improved reporting capabilities, and enhanced security within the organization

1.2 Purpose

The main purpose of this project is to ensure secure data handling and improved reporting by linking imported records to employee information. It aims to reduce manual effort, avoid data duplication, and maintain data accuracy. The project also focuses on enforcing role-based access control so that users can access only the data relevant to them.

2. IDEATION PHASE

2.1 Problem Statement

2.2 Empathy Map Canvas

2.3 Brainstorming

3. REQUIREMENT ANALYSIS

3.1 Customer Journey map

3.2 Solution Requirement

3.3 Data Flow Diagram

3.4 Technology Stack

4. PROJECT DESIGN

4.1 Problem Solution Fit

4.2 Proposed Solution

4.3 Solution Architecture

5. PROJECT PLANNING & SCHEDULING

5.1 Project Planning

6. FUNCTIONAL AND PERFORMANCE TESTING

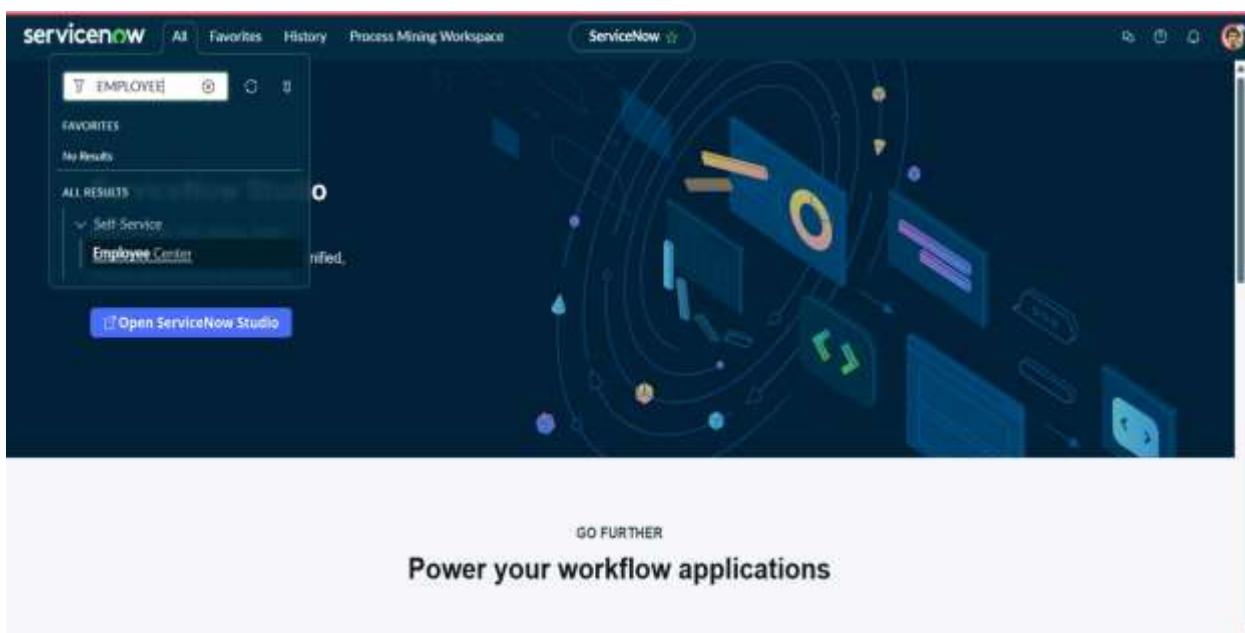
6.1 Performance Testing

7. RESULTS

7.1 Output Screenshots

The screenshot shows a ServiceNow list view titled "Employee Training Records". The columns are "Completion Date", "Status", and "Training Name". There are 11 rows of data:

Completion Date	Status	Training Name
[empty]	In Progress	AI Workshops
[empty]	Completed	Cyber Security
[empty]	Completed	Web Development
[empty]	Completed	Data Science Bootcamp
[empty]	Not Started	Machine Learning
2020-03-01	In Progress	Database Management
[empty]	Not Started	Deep Learning
[empty]	In Progress	Cloud Computing
2020-03-01	In Progress	Full Stack Java
[empty]	Completed	Python Basics
[empty]	Completed	ServiceNow Fundamentals



8. ADVANTAGES & DISADVANTAGES

8.1 Advantages

- **Improved Data Security**

The project ensures that sensitive organizational data is protected using role-based access control and Access Control Lists (ACLs). Each record is linked to a specific employee, allowing users to view only the data that belongs to them. This minimizes unauthorized access and improves overall data security.

- **Better Data Ownership and Accountability**

By associating every imported record with an employee, clear data ownership is established. This improves accountability and helps administrators easily identify who is responsible for each record, reducing ambiguity in data management.

- **Automated Data Population**

Employee-related details such as department are automatically populated from the user record. This reduces manual effort, prevents data entry errors, and ensures consistency across the system.

- **Enhanced Reporting and Analytics**

Since employee and department information is readily available in each record, generating department-wise or employee-wise reports becomes simple and accurate. This supports better decision-making and organizational analysis.

- **Scalable Enterprise Solution**

The solution is designed using standard ServiceNow features, making it scalable and adaptable to large organizations. It can handle increasing data volumes without major architectural changes.

8.2 Disadvantages

- **Initial Configuration Complexity**

Setting up Import Sets, Transform Maps, Business Rules, and ACLs requires a good understanding of ServiceNow. Beginners may find the initial configuration process complex and time-consuming.

- **Dependency on Accurate Input Data**

The system heavily depends on the accuracy of the imported data. Incorrect employee identifiers such as email or employee ID can lead to failed mappings or incorrect data associations.

- **Performance Impact for Large Imports**

When importing very large datasets, system performance may temporarily degrade. Proper scheduling and optimization are required to avoid performance issues.

- **Maintenance Overhead**

Any changes in employee structure, roles, or department hierarchy may require updates to business rules and access controls, leading to additional maintenance effort.

9.CONCLUSION

The Importing & Securing Data in ServiceNow project successfully addresses real-world challenges related to data ownership, security, and reporting. By linking imported records to employees and automatically populating department details, the system ensures accurate and meaningful data storage.

This project highlights the effectiveness of ServiceNow in handling enterprise data securely and efficiently. It demonstrates how automation, security controls, and reporting features can be combined to build a reliable and scalable solution for organizational data management.

10.FUTURE SCOPE

The project can be further enhanced by integrating it with external HR management systems to enable real-time employee data synchronization. Automated scheduled imports can also be implemented to reduce manual intervention and improve efficiency.

Additional enhancements may include advanced dashboards, analytics-based insights, email notifications for record updates, and integration with other enterprise tools. These improvements would make the system more intelligent, automated, and suitable for large-scale enterprise applications.

11. APPENDIX

The screenshot shows the ServiceNow interface for managing the 'Employee Training Records' table. At the top, the title bar displays 'Table - Employee Training Records'. Below the title bar, there are fields for 'Label' (set to 'Employee Training Records') and 'Name' (set to 'u_employee_training_records'). The 'Application' dropdown is set to 'Global'. A 'Search' bar and various navigation icons are also present.

The main area shows a table titled 'Dictionary Entries' with columns: 'Column label', 'Type', 'Reference', 'Max length', 'Default value', and 'Display'. The table lists several fields:

Column label	Type	Reference	Max length	Default value	Display
Sys ID	Sys ID (GUID)	(empty)	32		false
Updates	Integer	(empty)	40		false
Updated by	String	(empty)	40		false
Updated	Date/Time	(empty)	40		false
Created by	String	(empty)	40		false
Employee	Reference	User	32		false
Created	Date/Time	(empty)	40		false
Training Name	String	(empty)	40		false

servicenow All Favorites History Workspaces Table - Employee Training Records Search Delete Update Delete All Records

Table Employee Training Records

Columns Controls Application Access

Table Columns for text Search

Dictionary Entries

Column label	Type	Reference	Max length	Default value	Display
Sys ID	Sys ID (GUID)	(empty)	32	false	
Updates	Integer	(empty)	40	false	
Updated by	String	(empty)	40	false	
Updated	Date/Time	(empty)	40	false	
Created by	String	(empty)	40	false	
Employee	Reference	User	32	false	
Created	Date/Time	(empty)	40	false	
Training Name	String	(empty)	40	false	
Status	Choice	(empty)	40	false	
Completion Date	Date	(empty)	40	false	
Insert a new row...					

Deletes Update Delete All Records

servicenow All Favorites History Workspaces Admin Load Data Search

Import set table Create table Existing table

+ Label

Name

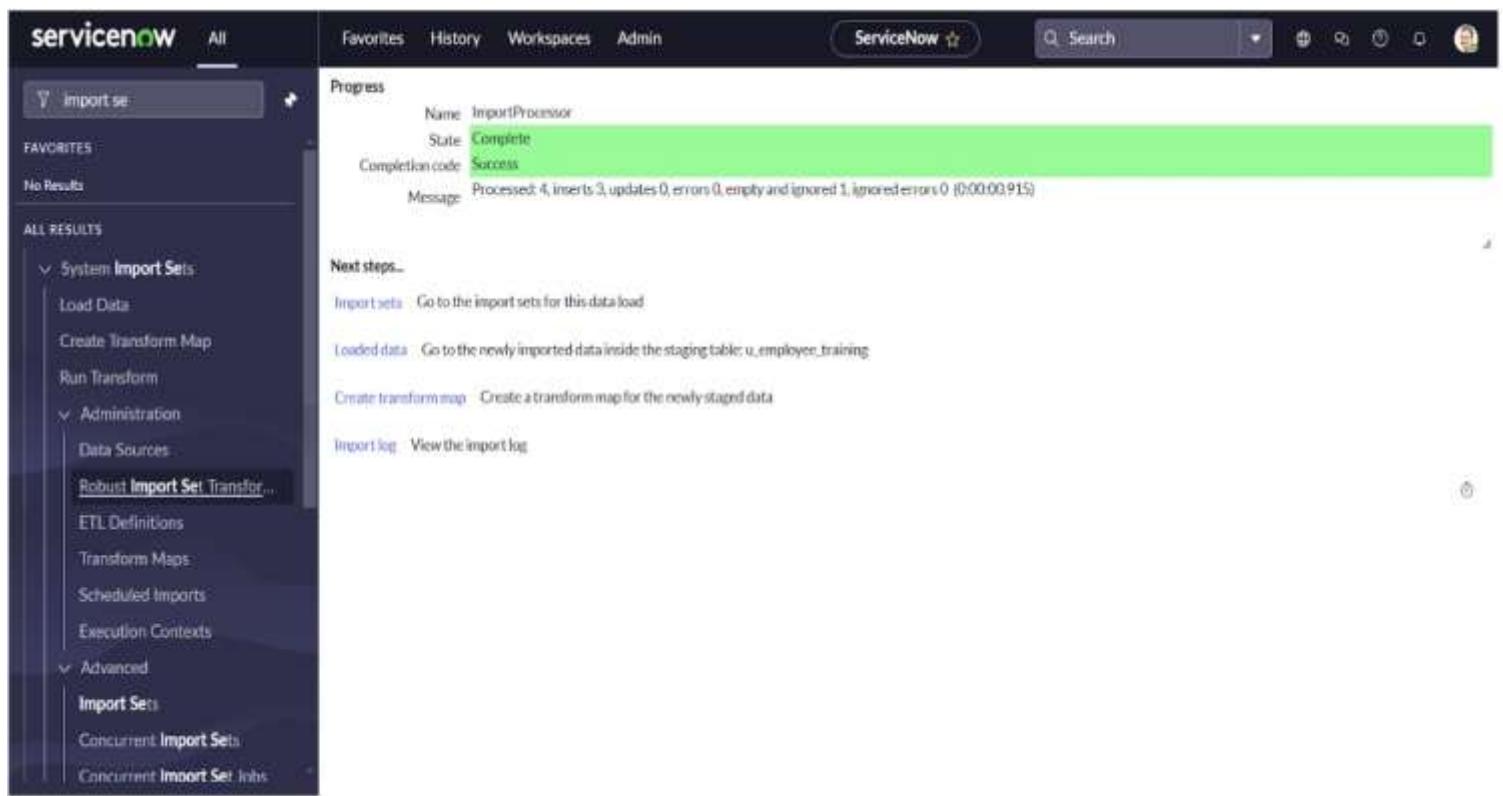
Source of the import File Data source

File

Sheet number

Header row

Submit



The screenshot shows the ServiceNow interface for managing import sets. On the left, a sidebar titled 'Import Sets' lists various options under 'System Import Sets' and 'Administration'. Under 'Administration', 'Robust Import Set Transformer' is selected. The main content area displays the progress of an import job named 'ImportProcessor'. The job is marked as 'Complete' with a 'Success' completion code. A message at the bottom indicates that 4 records were processed, with 3 inserts, 0 updates, 0 errors, and 1 ignored error, all completed in 0:00:03.915. Below the progress bar, a section titled 'Next steps...' provides links to 'Import sets', 'Loaded data', 'Create transform map', and 'Import log'.

Project Demo Link: <https://drive.google.com/file/d/1BFG5mihkvXqJqoQbgmW8o7i5Ds5TP-cA/view?usp=sharing>

GitHub Link: <https://github.com/konathalapavithra/Importing-and-Securing-Data-in-ServiceNow>