

SERVICE NOW PROJECT DOCUMENTATION

Importing & Securing Data in ServiceNow

Project Documentation

Submitted By

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Internship / Organization

SmartInternz – Project Phase

Platform Used

ServiceNow Platform

Academic Year

2025 – 2026

1. Introduction

Digital transformation plays a crucial role in managing organizational data efficiently. Many organizations maintain employee training records manually using spreadsheets or disconnected systems, leading to data redundancy, limited visibility, and difficulty in tracking employee training progress.

To overcome these challenges, the **Importing & Securing Data in ServiceNow** was developed using the **ServiceNow platform**. The system automates training record management by allowing administrators to import employee training data, link records with employee information, and manage access securely.

This solution replaces manual tracking methods with a structured and workflow-driven automation system within ServiceNow.

Project Objectives

The Importing & Securing Data in ServiceNow focuses on:

- Digitizing employee training records
- Eliminating manual data maintenance
- Linking training records with employee details
- Providing department-wise visibility
- Enabling structured reporting
- Improving data accuracy
- Implementing secure role-based access
- Supporting organizational compliance tracking

2. Project Overview

The **Importing & Securing Data in ServiceNow** is a Scoped Application developed using ServiceNow Studio.

The system allows administrators to:

- Store employee training information
- Import bulk training data
- Track training completion status
- Link employees using reference fields
- View department information through dot-walking

Users can:

- View employee training records
- Monitor completion status
- Access updated information securely

Previously, training management involved:

- Manual spreadsheets
- Disconnected employee records
- No centralized storage
- Limited reporting capability

This resulted in:

- Data inconsistency
- Reporting difficulties
- Lack of access control
- Increased administrative effort

The implemented system resolves these issues using structured database relationships and automation.

3. System Architecture

The system follows a layered architecture within the ServiceNow platform.

3.1 Presentation Layer

The presentation layer is implemented using:

- ServiceNow Classic UI

- List View Interface

Users interact with:

- Employee Training module
- Training record list view
- Record forms
- Reports and dashboards

User Flow

1. User logs into ServiceNow instance
2. Opens Employee Training module
3. Views training records
4. Checks employee department and status

3.2 Business Logic Layer

Business logic is implemented through:

- Table configuration
- Import Sets
- Transform Maps
- Access Control Rules (ACLs)
- Role Management

The application ensures:

- Valid data import
- Structured record mapping
- Secure access control
- Controlled record modification

3.3 Data Layer

The system uses a custom table inside the scoped application.

Primary Table

Employee Training (Custom Table)

Fields Created

- Training Name – String
- Completion Date – Date
- Status – Choice
- Employee – Reference (sys_user)

Each record represents one employee training activity.

The system maintains:

- Record history
- User audit tracking
- Created/Updated timestamps
- Department relationships

All data is securely stored within the ServiceNow database.

4. Implementation Details

Phase 1: Instance Creation

- Logged into ServiceNow Developer Portal
- Requested Personal Developer Instance
- Accessed instance using admin credentials
- Verified development environment

The screenshot shows the ServiceNow Developer Studio interface. At the top, there's a navigation bar with 'servicenow' and links for 'All', 'Favorites', 'History', 'Tables', 'Search', and user profile. Below the navigation is a toolbar with icons for 'Table', 'New record', 'Submit', and 'Cancel'. The main area is titled 'Table New record' and contains fields for 'Label' (set to 'Employee Training Records'), 'Name', and 'Extends table'. To the right, there are options for 'Application' (set to 'Global'), 'Create module' (checked), 'Create mobile module' (checked), 'Add module to menu' (set to '-- Create new --'), and 'New menu name'. A 'Dictionary Entries' section is visible below, with tabs for 'Columns', 'Controls', and 'Application Access'. It includes a search bar and a table for defining columns like 'Column label', 'Type', 'Reference', 'Max length', 'Default value', and 'Display'. At the bottom of the form are 'Submit' and 'Cancel' buttons.

Phase 2: Application Creation

Using ServiceNow Studio:

- Created Scoped Application
- Selected Create from Scratch
- Application Name: Employee Training Management
- User Experience: Classic ServiceNow

Phase 3: Table Creation

Created custom Employee Training table.

Fields Added:

- Training Name (String)
- Completion Date (Date)
- Status (Choice)
- Employee (Reference → sys_user)

Status choices were configured using Dictionary Entries.

The screenshot shows the ServiceNow 'Tables' interface. A new table is being created with the following details:

- Label:** Employee Training Records
- Name:** ul
- Application:** Global
- Module Options:**
 - Create module:
 - Create mobile module:
 - Add module to menu: -- Create new --
 - New menu name: (empty)
- Extends table:** (empty)
- Remote Table:**

Below the main form, a smaller window titled 'Table Columns' lists the columns for the new table:

- Columns
- * Controls
- Application Access
- Table Columns: for text
- Search
- Dictionary Entries

Phase 4: Data Import Using Import Sets

- Uploaded training dataset using Load Data
- Created Import Set Table
- Verified uploaded records

Phase 5: Transform Map Configuration

- Created Transform Map
- Mapped source fields to target table
- Executed transform process
- Successfully inserted records

Phase 6: Dot-Walking Implementation

Dot-walking was used to retrieve:

- Employee Department
- Employee-related details

Department information became visible directly in list view.

Phase 7: Security Implementation (ACL)

Security was enforced through:

- HR Manager Role creation
- Read ACL configuration
- Write ACL configuration
- Role assignment to authorized users

Unauthorized users were restricted from accessing records.

5. Process Flow Lifecycle

The application workflow ensures secure handling of training data.

Workflow Steps

- Training data uploaded through Import Sets
- Records created in Employee Training table
- Employee linked via reference field
- Department retrieved using dot-walking
- ACL validation applied
- Authorized users manage records

Testing and Validation

Comprehensive testing included:

- Import validation testing
- Transform mapping verification
- Role-based access testing
- User impersonation testing

Results confirmed secure and accurate system behavior.

Challenges and Future Enhancements

Challenges

- Initial reference field configuration issues
- ACL permission conflicts during testing
- Import mapping validation errors

Future Enhancements

- Automated training reminders
- Certification expiry alerts
- Department dashboards
- Employee self-service updates

Conclusion

The Importing & Securing Data in ServiceNow demonstrates how ServiceNow can effectively automate organizational data processes. The implementation provides:

- **Transparency:** Centralized training visibility
- **Efficiency:** Automated data import and relationship mapping
- **Security:** Role-based controlled access
- **Scalability:** Extendable framework for enterprise training management

The project successfully replaces manual tracking with a secure, automated, and scalable ServiceNow solution.