

Project Document

Automating Data Population in ServiceNow Streamlining Program Management

1. Project Overview

This project is focused on implementing an automated **data lookup mechanism** in ServiceNow to streamline field population in the "Program" table. The primary challenge addressed is the manual and error-prone entry of "Trainer" values based on the "Technology" and "Tracker" fields. By leveraging ServiceNow's **Data Lookup Definitions** and related functionalities, this solution aims to improve **data accuracy, reduce operational overhead, and enhance user experience** for IT administrators managing programs.

2. Objectives

Business Goals

- **Automation:** Eliminate manual data entry errors in the "**Program**" table.
- **Efficiency:** Save time for administrators by automating field population.
- **Accuracy:** Ensure consistent and reliable data across the system.

Specific Outcomes

- Automatically populate the "Trainer" field in the "Program" table based on predefined mappings in the "Testing Lookups" table.
- Seamless integration of data lookup into the existing workflows.

3. Key Features and Concepts Utilized

Tables and Fields:

- Custom "**Program**" table with fields: Technology, Tracker, Trainer.
- "**Testing Lookups**" table with corresponding fields to provide predefined mappings.

Data Lookup Definitions:

Configure a Data Lookup Definition to fetch the trainer's value based on "Technology" and "Tracker."

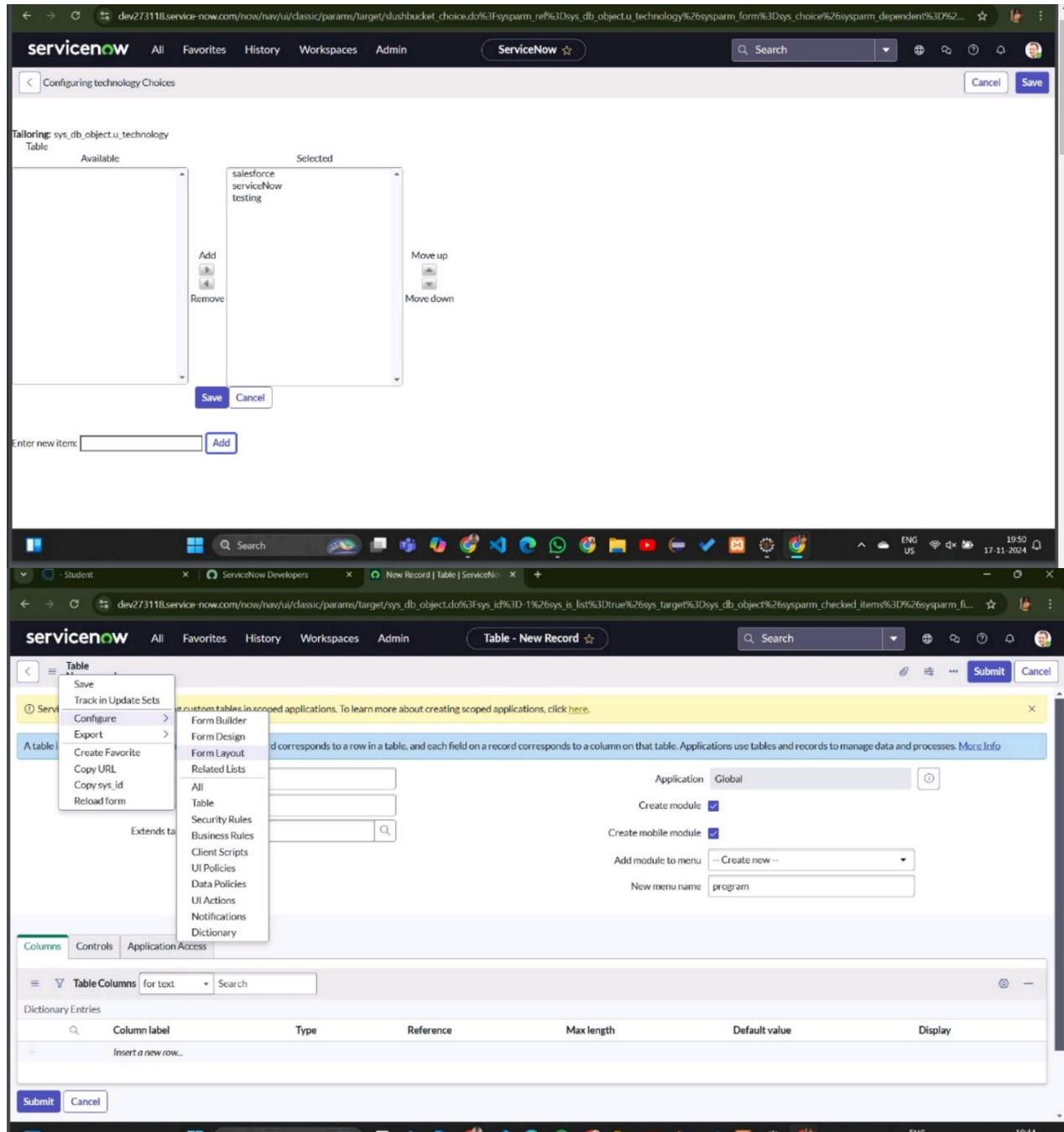
Applications:

Leverage ServiceNow's platform capabilities to implement the solution without additional

plugins.

4. Detailed Steps to Solution Design

Step 1: Create Table



The screenshot displays two screenshots of the ServiceNow interface. The top screenshot shows the 'Configuring technology Choices' screen. It features a 'Tailoring: sys_db_object.u_technology' section with a 'Table' tab. Below this, there are two columns: 'Available' and 'Selected'. The 'Selected' column contains the items 'salesforce', 'serviceNow', and 'testing'. There are 'Add', 'Remove', 'Move up', and 'Move down' buttons between the columns. At the bottom, there is a 'Save' button and a 'Cancel' button. Below the 'Save' button, there is a text input field labeled 'Enter new items' and an 'Add' button.

The bottom screenshot shows the 'Table - New Record' screen. It features a 'Table' tab with a dropdown menu open, showing options: 'Save', 'Track in Update Sets', 'Configure', 'Export', 'Create Favorite', 'Copy URL', 'Copy sys_id', and 'Reload form'. The 'Configure' option is selected, leading to a configuration page. This page has a 'Table' section with a search bar and a list of items: 'All', 'Table', 'Security Rules', 'Business Rules', 'Client Scripts', 'UI Policies', 'Data Policies', 'UI Actions', 'Notifications', and 'Dictionary'. Below this, there is a 'Columns' section with a 'Table Columns' tab and a search bar. The 'Table Columns' section has a 'Dictionary Entries' table with columns: 'Column label', 'Type', 'Reference', 'Max length', 'Default value', and 'Display'. The table is currently empty, with a '+ Insert a new row...' button at the bottom. At the bottom of the screen, there are 'Submit' and 'Cancel' buttons.

dev273118.service-now.com/now/nav/ui/classic/params/target/sys_db_object.do%3Fsys_id%3D-1%26sys_is_list%3Dtrue%26sys_target%3Dsys_db_object%26sysparm_checked_items%3D%26sysparm...

servicenow All Favorites History Workspaces Admin **Table - New Record** Search

Table New record Submit Cancel

ServiceNow recommends creating custom tables in scoped applications. To learn more about creating scoped applications, click [here](#).

A table is a collection of records in the database. Each record corresponds to a row in a table, and each field on a record corresponds to a column on that table. Applications use tables and records to manage data and processes. [More Info](#)

* Label Application ⓘ

* Name Create module ☒

Extends table Create mobile module ☒

Add module to menu -- Create new --

New menu name

Columns Controls Application Access

Table Columns for text Search

Dictionary Entries

Column label	Type	Reference	Max length	Default value	Display
Insert a new row...					

Submit Cancel

dev273118.service-now.com/now/nav/ui/classic/params/target/sys_db_object.do%3Fsys_id%3Dfa262f6b83fd52104198cd50cead359%26sysparm_record_rows%3D1%26sysparm_record_target%3Dsys...

servicenow All Favorites History Workspaces Admin **Table - Program** Search

Table Program Delete Update Delete All Records

technology -- None --

tracker -- None --

trainer -- None --

Columns Controls Application Access

Table Columns for text Search 1 to 6 of 6 New

Dictionary Entries

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

Delete Update Delete All Records

Related Links

Form Builder

Step 2: Create Testing Lookup

dev229491.service-now.com/now/nav/ui/classic/params/target/sys_db_object.do%3Fsys_id%3D1%26sys_is_list%3Dtrue%26sys_target%3Days_db_object%26sysparm_checked_items%3D%26sysparm_f...

servicenow All Favorites History Workspaces Admin Table - New Record Search Submit Cancel

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A table is a collection of records in the database. Each record corresponds to a row in a table, and each field on a record corresponds to a column on that table. Applications use tables and records to manage data and processes. [More Info](#)

* Label: testing lookup
 * Name: u_testing_lookup **Lookup using list**
 Extends table: Matcher Field Definitions

Application: Global
 Create module: ☒
 Create mobile module: ☒
 Add module to menu: -- Create new --
 New menu name: testing
 technology: -- None --
 tracker: -- None --
 trainer: -- None --

Columns Controls Application Access

Table Columns for text Search

Dictionary Entries

Column label	Type	Reference	Max length	Default value	Display
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Step 3: Create Matcher Table

dev229491.service-now.com/now/nav/ui/classic/params/target/sys_db_object.do%3Fsys_id%3D9247376bc3b512101538bb0d0501315b%26sysparm_record_target%3Days_db_object%26sysparm_record...

servicenow All Favorites History Workspaces Admin Table - testing lookup Search Delete Update Delete All Records

Table testing lookup

A table is a collection of records in the database. Each record corresponds to a row in a table, and each field on a record corresponds to a column on that table. Applications use tables and records to manage data and processes. [More Info](#)

* Label: testing lookup
 * Name: u_testing_lookup
 Extends table: Matcher Field Definitions

Application: Global
 technology: salesforce
 tracker: Developer
 trainer: Tarakesh
 order: 200

Columns Controls Application Access

Table Columns for text Search 1 to 20 of 20 New

Dictionary Entries

Column label	Type	Reference	Max length	Default value	Display
Source table	String	(empty)	80	javascript:parent.source_table	false
Matcher table	String	(empty)	80	javascript:parent.matcher_table	false
Source table field	Field Name	(empty)	80		true
Matcher table field	Field Name	(empty)	80		true
Exact lookup match	True/False	(empty)	40	false	false
Sys ID	Sys ID (GUID)	(empty)	32		false

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Table - testing lookup

A table is a collection of records in the database. Each record corresponds to a row in a table, and each field on a record corresponds to a column on that table. Applications use tables and records to manage data and processes. [More Info](#)

* Label: testing lookup

* Name: u.testing.lookup

Extends table: Matcher Field Definitions

Application: Global

technology: salesforce

tracker: Admin

trainer: Rakesh

order: 100

Columns Controls Application Access

Table Columns for text Search

Dictionary Entries

Column label	Type	Reference	Max length	Default value	Display
Source table	String	(empty)	80	javascript:parent.source_table	false
Matcher table	String	(empty)	80	javascript:parent.matcher_table	false
Source table field	Field Name	(empty)	80		true
Matcher table field	Field Name	(empty)	80		true
Exact lookup match	True/False	(empty)	40	false	false
Sys ID	Sys ID (GUID)	(empty)	32		false

Step 4: Create Automation

Data Lookup Definitions

program data lookup

* Name: program data lookup

* Source Table: program [u_program]

* Matcher Table: testing lookup [u_testing]

Application: Global

Active: ☒

Run on form change: ☒

Run on insert: ☒

Run on update: ☐

Update Delete

Matcher Field Definitions (2) Setter Field Definitions (1)

for text Search

Data Lookup = program data lookup

Source table field	Matcher table field	Exact lookup match
u_tracker	u_tracker	false
u_technology	u_technology	true

1 to 2 of 2

Matcher Field Definitions

New record

Data Lookup: program data lookup

* Source table field: technology

* Matcher table field: technology

Application: Global

Exact lookup match: ☒

Submit

5. Testing and Validation

Testing Approach

- Unit Testing:** Validate each field mapping in the "Testing Lookups" table to ensure accurate trainer population.

- **Integration Testing:** Test the interaction between "**Program**" and "**Testing Lookups**" tables for data consistency.
- **User Interface Testing:** Ensure the automatic population mechanism is reflected correctly in the ServiceNow interface.

6. Key Scenarios Addressed by ServiceNow in the Implementation Project

Scenario 1:

An IT administrator enters a "**Technology**" and "**Tracker**" combination in the "**Program**" table, and the "**Trainer**" field is automatically populated.

Scenario 2:

Updates to the "**Testing Lookups**" table reflect instantly in subsequent entries in the "**Program**" table.

Scenario 3:

Validation ensures that any missing or incorrect combinations in the "**Testing Lookups**" table prompt a notification.

7. Conclusion

Summary of Achievements:

- Implemented an automated data lookup mechanism in ServiceNow, reducing errors and administrative effort.
- Enhanced data reliability and ensured adherence to predefined mappings.
- Delivered a user-friendly solution that integrates seamlessly into the existing ServiceNow environment.