

Calculating Family Expenses Using Service Now

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Introduction

Calculating Family Expenses Using Service Now

A Guided project was designed to build a clear, flexible, and easy-to-use system for keeping track of and organizing family expenses through the ServiceNow platform.

Project Objective

The goal of this project is to build a comprehensive family expenses calculation system that allows users to categorize and record expenses, set budgets, and track them in real time.

It also aims to establish relationships between tables for better organization of data.

Setting Up ServiceNow Instance

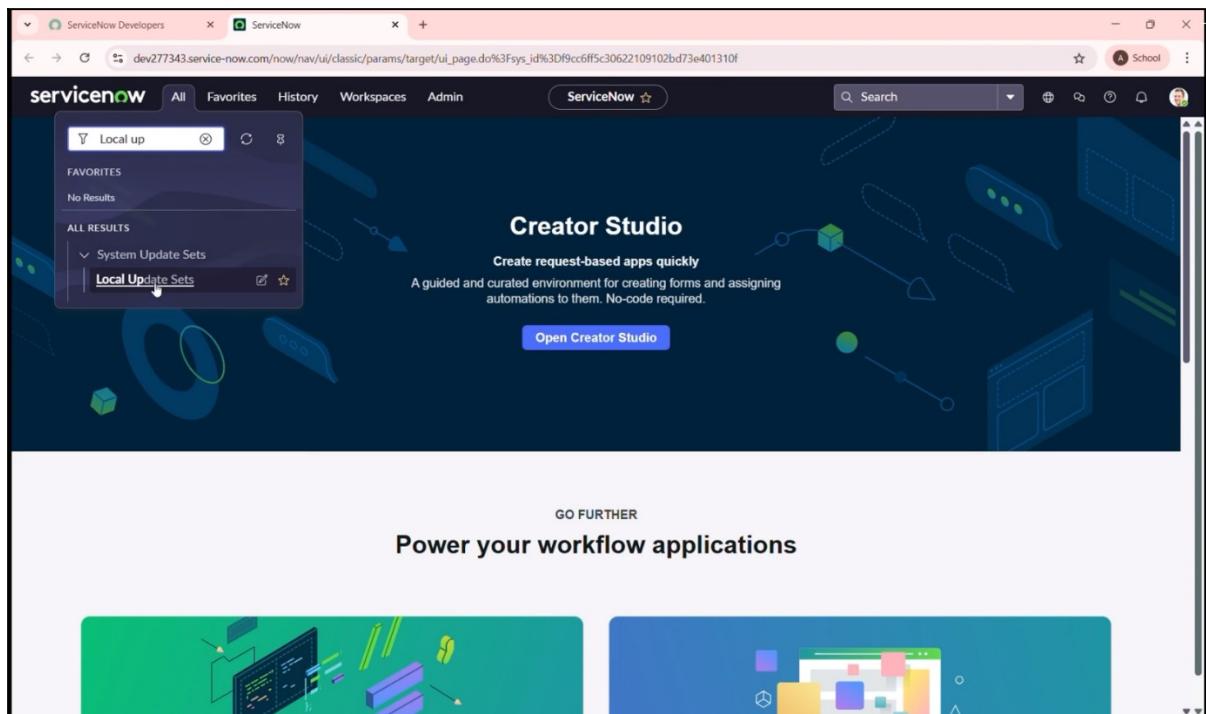
1. A personal developer instance (PDI) was created from ServiceNow to start building and testing the application.
2. Open "<https://developer.servicenow.com>".
3. Create a personal developer instance.
4. Click on Request Instance.
5. Submit the request.
6. Navigate to the ServiceNow platform.

My Instance		
INSTANCE STATUS	INSTANCE ACTION	ACTIVITY
Online	<input type="checkbox"/> Activate Plugin <input checked="" type="checkbox"/> Manage Email Properties <input checked="" type="checkbox"/> Release Instance <input type="checkbox"/> Change User Role <input type="checkbox"/> Remove Demo Data <input checked="" type="checkbox"/> Reset and Wipe Instance <input checked="" type="checkbox"/> Manage instance password <input type="checkbox"/> Default Instance	Instances with no activity for over 10 days will be claimed back in to the pool.
RELEASE okohama		
USER ROLE dmin		
PP ENGINE STUDIO Installed		
REATOR STUDIO Installed		

Creation of New Update Set

An update set was created to capture all customizations and configurations during the project development.

[Click Local Update Set](#)



Enter the Details:

Name: Family Expenses, then click Submit.

This screenshot shows the 'Create New Update Set' form in ServiceNow. The top navigation bar includes 'ServiceNow Developers', 'ServiceNow', and a search bar. The main title is 'Update Set - Create New Update Set'. The form has several input fields: 'Name' (set to 'Family Expenses'), 'State' (set to 'In progress'), 'Parent' (empty), 'Release date' (empty), and a large 'Description' text area. To the right of the form, there are buttons for 'Submit' and 'Submit and Make Current'. The bottom of the page contains a large, empty white area.

Creation of Table (Family Expenses)

A new table was added to store core family expense details such as category, amount, and date.

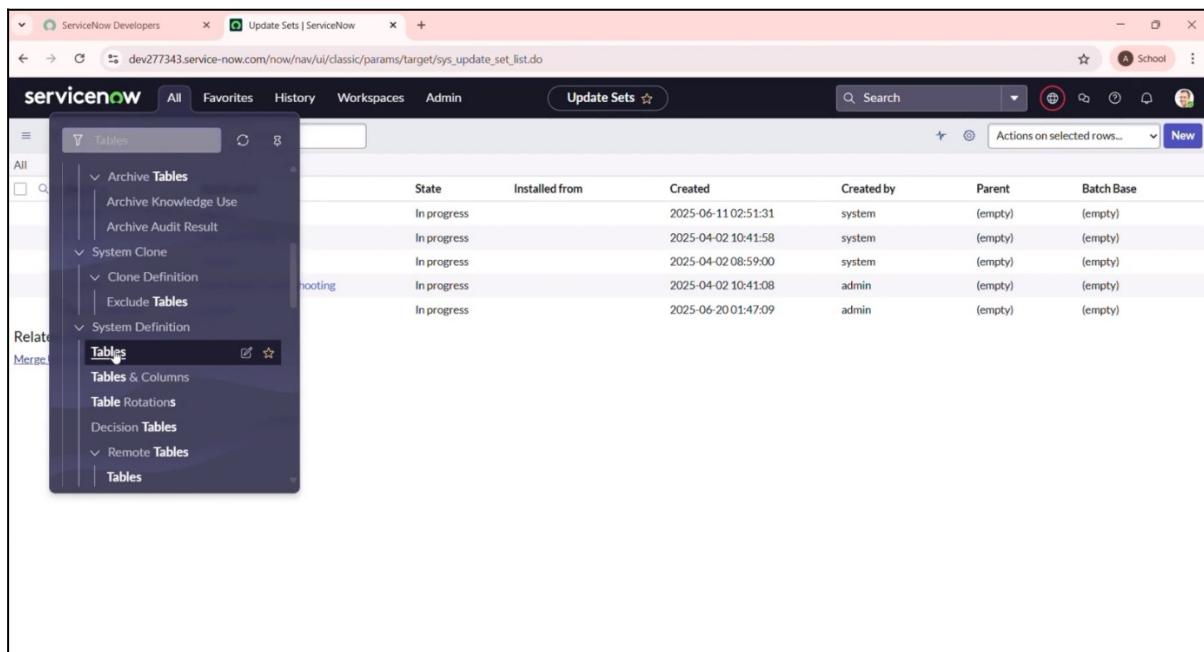
1. Creation of family expenses table

a. Search for tables and click New.

b. Label: Family Expenses

Name: Auto – Populated

New menu name: Family Expenditure



All > Update name is not empty

Label	Name	Extends table	Extensible	Updated
Account Subscription Entitlement	account_subscription_entitlement	(empty)	false	2025-04-02 09:47:13
Adaptive Authentication Event	adaptive_auth_event	(empty)	false	2025-04-02 09:22:59
Agent Assist Recommendation	agent_assist_recommendation	Application File	false	2025-04-02 09:24:48
MID Server File	agent_file	(empty)	false	2025-04-02 09:03:14
Record Producer Configuration	aisa_rp_config	Application File	false	2025-04-02 09:30:16
Search Actions	aisa_ui_action	Application File	false	2025-04-02 09:30:16
AI Search ACL Overrides	ais_ad_overrides	Application File	false	2025-04-02 08:39:41
AI Search Active Table Ingestion Tracker	ais_active_table.ingestion_tracker	(empty)	false	2025-04-02 08:39:39
AI Search Async Genius Result	ais_async_genius_result	(empty)	false	2025-04-02 08:39:44
AI Search Async Request	ais_async_request	(empty)	false	2025-04-02 08:39:45
AI Search Child Table	ais_child_table	Application File	false	2025-04-02 08:39:43
AI Search Configuration Attribute	ais_configuration_attribute	(empty)	false	2025-04-02 08:39:39
AI Search Connection	ais_connection	(empty)	false	2025-04-02 08:39:44
AI Search Country To Search Language	ais_country_to_search_language	Application File	false	2025-04-02 08:39:45
Custom Matcher	ais_custom_matcher	Application File	false	2025-04-02 08:39:42
AI Search Indexed Source	ais_datasource	Application File	false	2025-04-02 08:39:44
AI Search Indexed Source Attribute	ais_datasource_attribute	Application File	false	2025-04-02 08:39:39
AI Search Indexed Source Field Attribute	ais_datasource_field_attribute	Application File	false	2025-04-02 08:39:40
AI Search Indexed Source Statistics	ais_datasource_stats	(empty)	false	2025-04-02 08:39:41

Table - New Record

Save, Track in Update Sets, Configure, Export, Create Favorite, Copy URL, Copy sys_id, Reload form

Application Global

Create mobile module

Add module to menu ...Create new... New menu name Family Expenditure

Remote Table

Columns Controls Application Access

Dictionary Entries

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

Submit Cancel

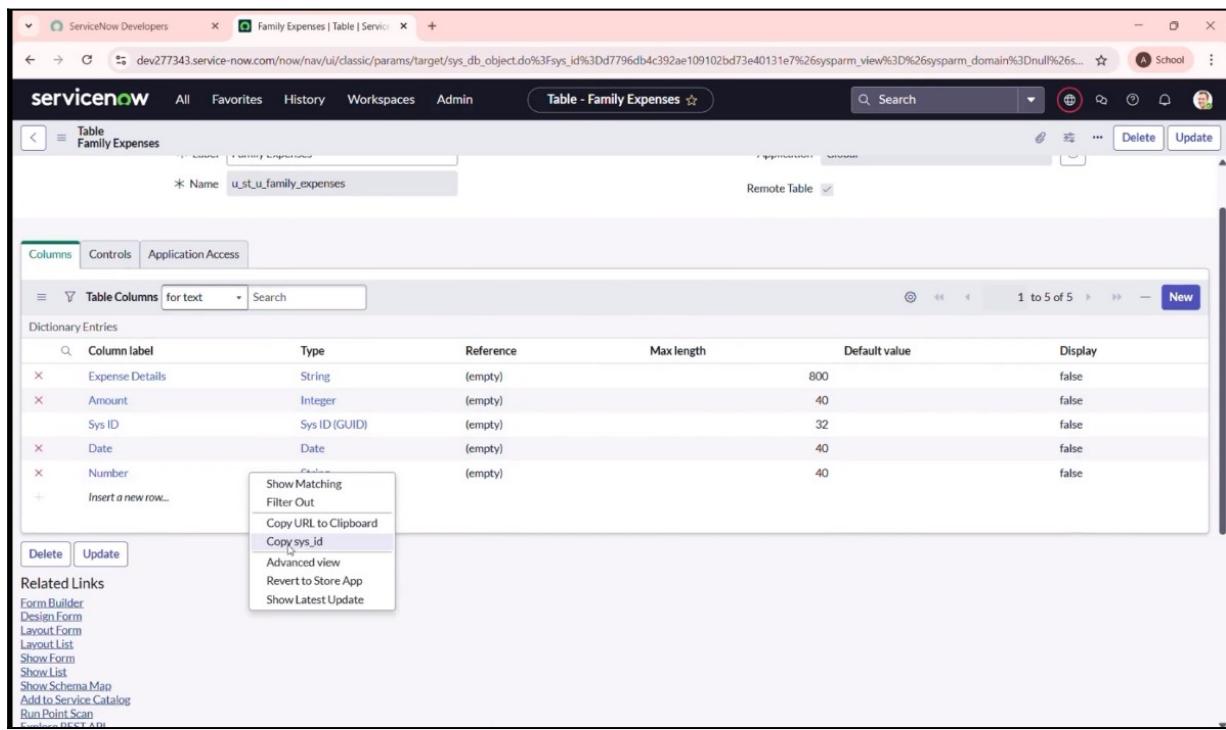
Related Links Track in Update Sets

c. Go to the header, right-click, and click Save.

2. Creation of Columns (Fields)

- a. Insert a new row
- b. Column label: Number
Type: String
- c. Column label: Date
Type: Date
- d. Column label: Amount
Type: Integer
- e. Column label: Expense Details
Type: String

Max length: 800



The screenshot shows the ServiceNow Table - Family Expenses page. The table has the following columns:

Column label	Type	Reference	Max length	Default value	Display
Expense Details	String	(empty)	800		false
Amount	Integer	(empty)	40		false
Sys ID	Sys ID (GUID)	(empty)	32		false
Date	Date	(empty)	40		false
Number		(empty)	40		false
<i>Insert a new row...</i>					

A context menu is open over the 'Number' column, showing options like 'Show Matching', 'Filter Out', 'Copy URL to Clipboard', 'Copy sys_id', 'Advanced view', 'Revert to Store App', and 'Show Latest Update'.

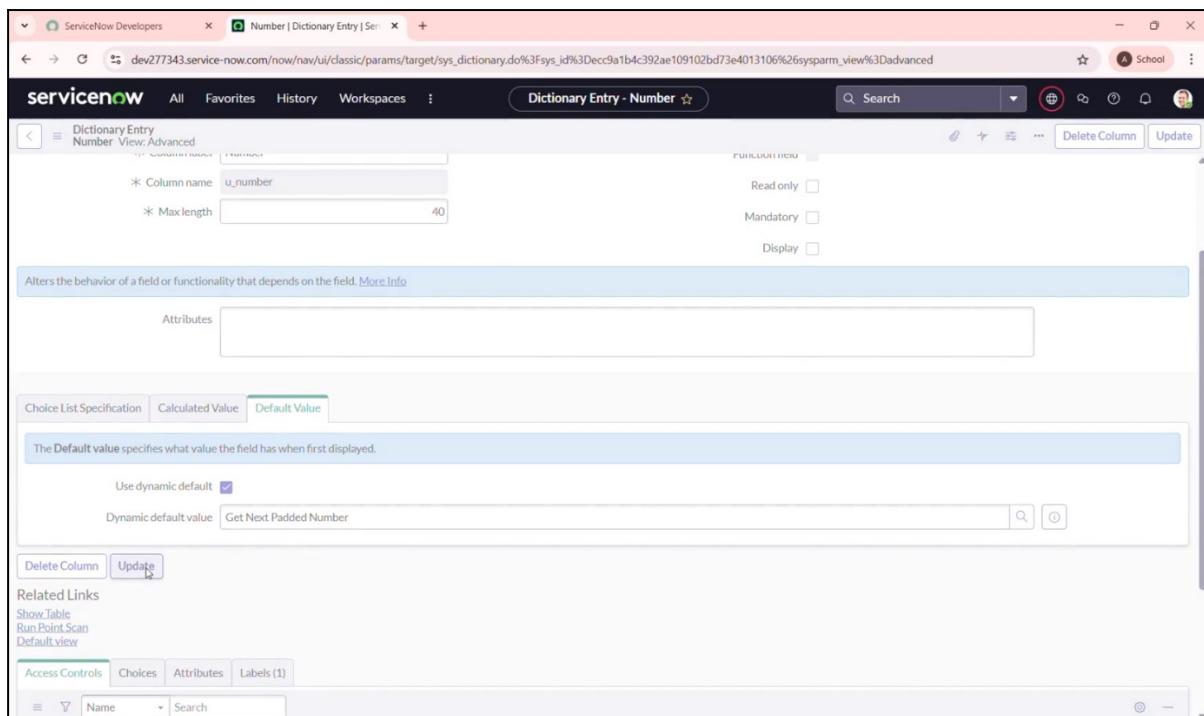
3. Making Number Field An auto - Number

- Double-click the Number field.
- Click on Advanced view
- Click Default value

Use dynamic default: checks the box

Dynamic default value: Get Next Padded Number

- Click Update button



- Go to all - search number maintenance select “Number Maintenance”
- Click on new

g. Table: Family Expenses

Prefix: MFE

h. Click on “Submit” button

The screenshot shows a ServiceNow web interface for creating a new record. The title bar says "ServiceNow Developers" and "New Record | Number | Service". The main title is "Number - New Record". The form has the following fields:

- * Table: Family Expenses
- Prefix: MFE
- * Number: (empty)
- Application: Global
- Number of digits: 7

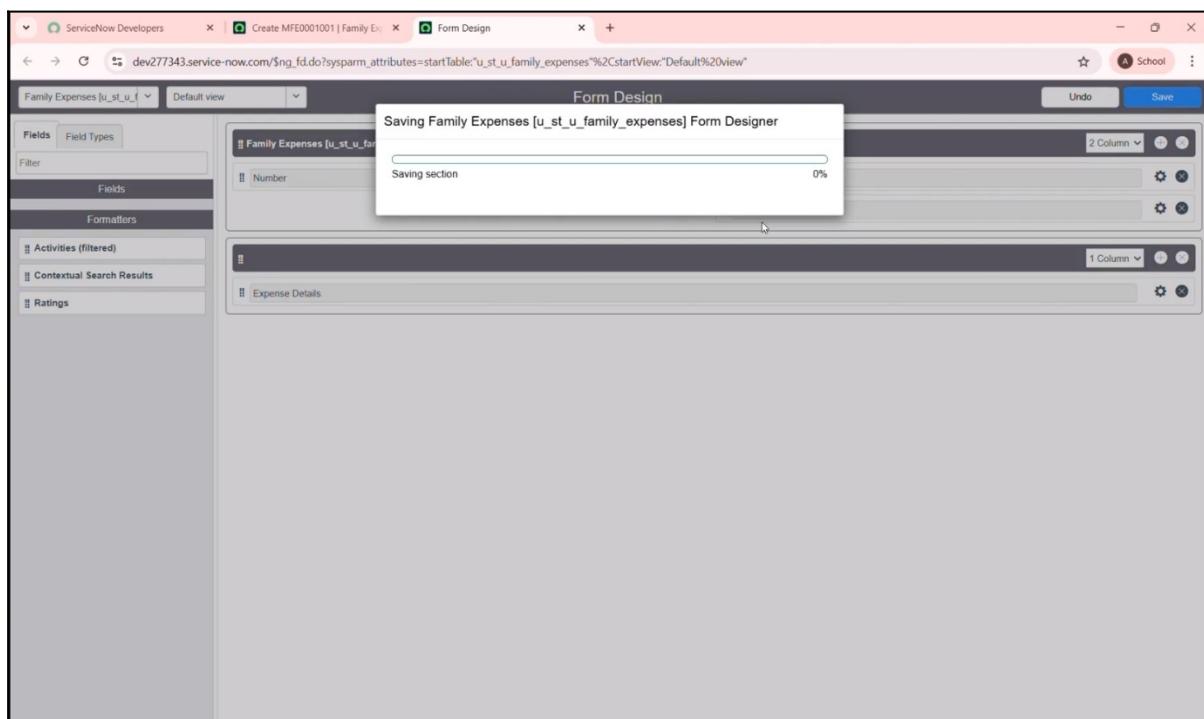
At the bottom left is a "Submit" button, and at the bottom right is a "Cancel" button.

4. Configure The Form

a. Search for Family Expenses and open it.

b. Click New

- c. Go to the Header >> Right click >> click on configure select from design
- d. Make the Number field read-only by clicking the gear icon and checking "Read-Only."
- e. Make Date and Amount mandatory fields by checking the mandatory option.
- f. Click save



Creation of Table (Daily Expenses)

A related table was created to record individual daily expense entries linked to the main family record.

1. Creation of daily expenses table

a. Go to All >> search “Tables” >> click new

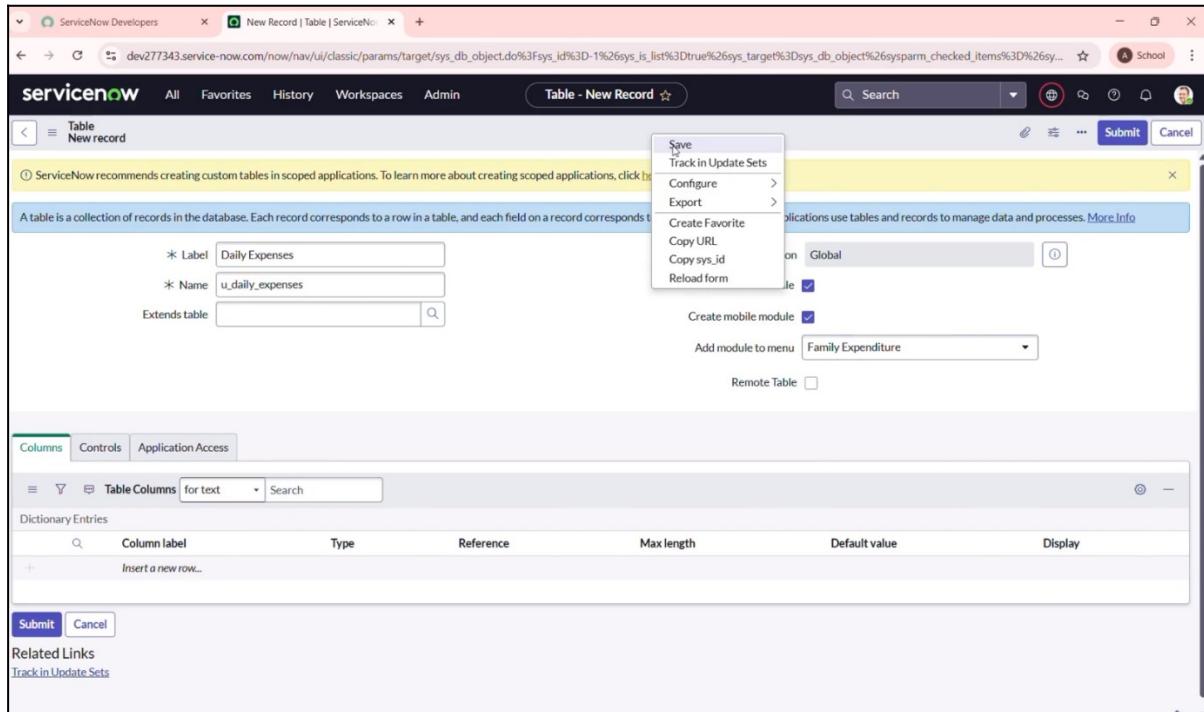
b. Enter the details

Label: Daily Expenses

Name : Auto - Populated

Add Module to menu : Family Expenditure

e. Click save



2. Creation of Columns (Fields)

a. Insert a new row for each column.

b. Column label: Number

Type: String

c. Column label: Date

Type: Date

d. Column label: Expense

Type: Reference

e. Column label: Family Member Name

Type: Reference

Max length: 800

f. Column label: Comments

Type: String

Max length: 800

g. Click on Save

Column label	Type	Reference	Default value	Display
Created by	String	(empty)	40	false
Sys ID	Sys ID (GUID)	(empty)	32	false
Created	Date/Time	(empty)	40	false
Updated by	String	(empty)	40	false
Updates	Integer	(empty)	40	false
Updated	Date/Time	(empty)	40	false
Number	String		40	false
Date	Date		40	false
Expense	Integer		40	false
Family Member Name	Reference		40	false
Comments	String		40	false

3. Making Number Field an Auto - Number

- a. Double click on the number Field
- b. Click Advanced View
- c. Click Default value

 Use dynamic default: checks the box

 Dynamic default value: Get Next Padded Number

- d. Click Update
- e. Go to all >> search for “number Maintenance select number Maintenance
- f. Click new
- g. Table: Daily Expenses
 Prefix: DFE
- h. Click on submit

ServiceNow Developers | Daily Expenses | Table | Service

Table - Daily Expenses

Dictionary Entries

Column label	Type	Reference	Max length	Default value	Display
Comments	String	(empty)	800	false	
Expense	Integer	(empty)	40	false	
Number	Show Matching	(empty)	40	false	
Created by	Filter Out	(empty)	40	false	
Sys ID	Copy URL to Clipboard	(empty)	32	false	
Created	Copy sys_id	(empty)	40	false	
Updated by	Advanced view	(empty)	40	false	
Updates	Revert to Store App	(empty)	40	false	
Updated	Show Latest Update	(empty)	40	false	
Date	Date	(empty)	40	false	
Insert a new row...					

Related Links

- Form Builder
- Design Form
- Layout Form
- Layout List
- Show Form
- Show List
- Show Schema Map

ServiceNow Developers | Number | Dictionary Entry | Service

Dictionary Entry - Number

Attributes

The Default value specifies what value the field has when first displayed.

Use dynamic default

Dynamic default value: Get Next Padded Number

Related Links

- Show Table
- Run Point Scan
- Default view

Access Controls

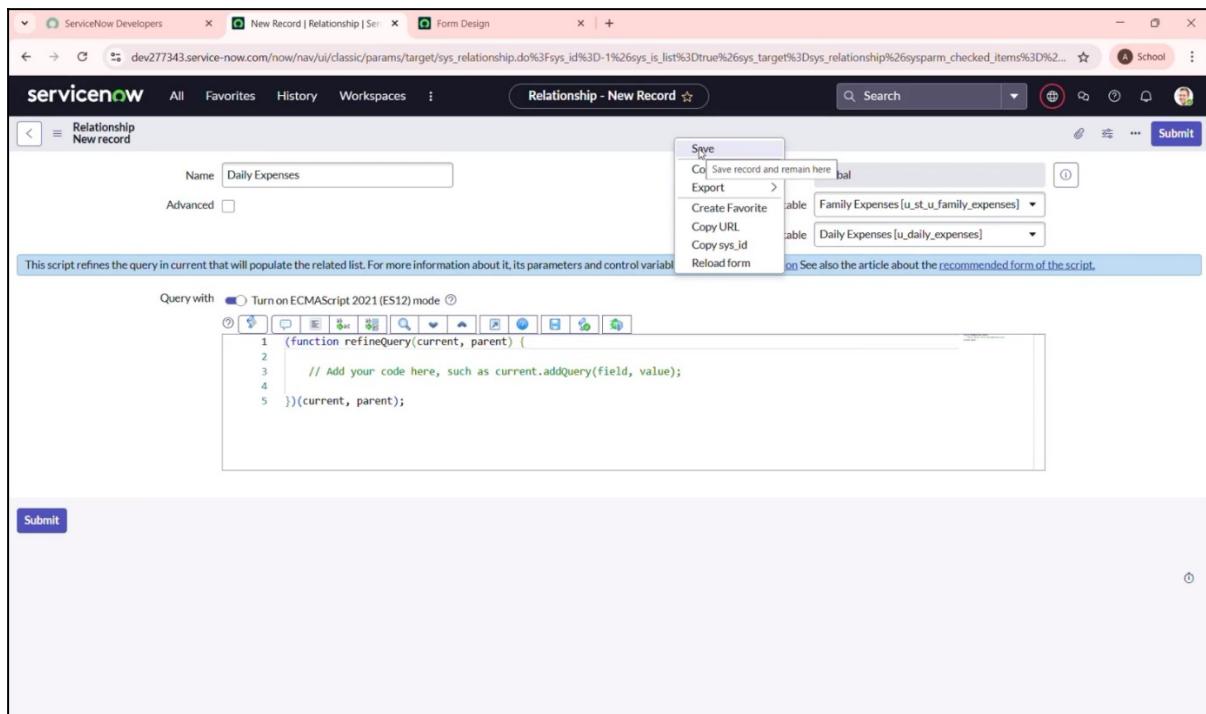
Name	Decision Type	Operation	Type	Active	Updated by	Updated
------	---------------	-----------	------	--------	------------	---------

Creation Of Relationship

Define the relationship between the Family Expenses and Daily Expenses tables to enable hierarchical tracking.

Creation of relationship between family expenses and daily expenses tables

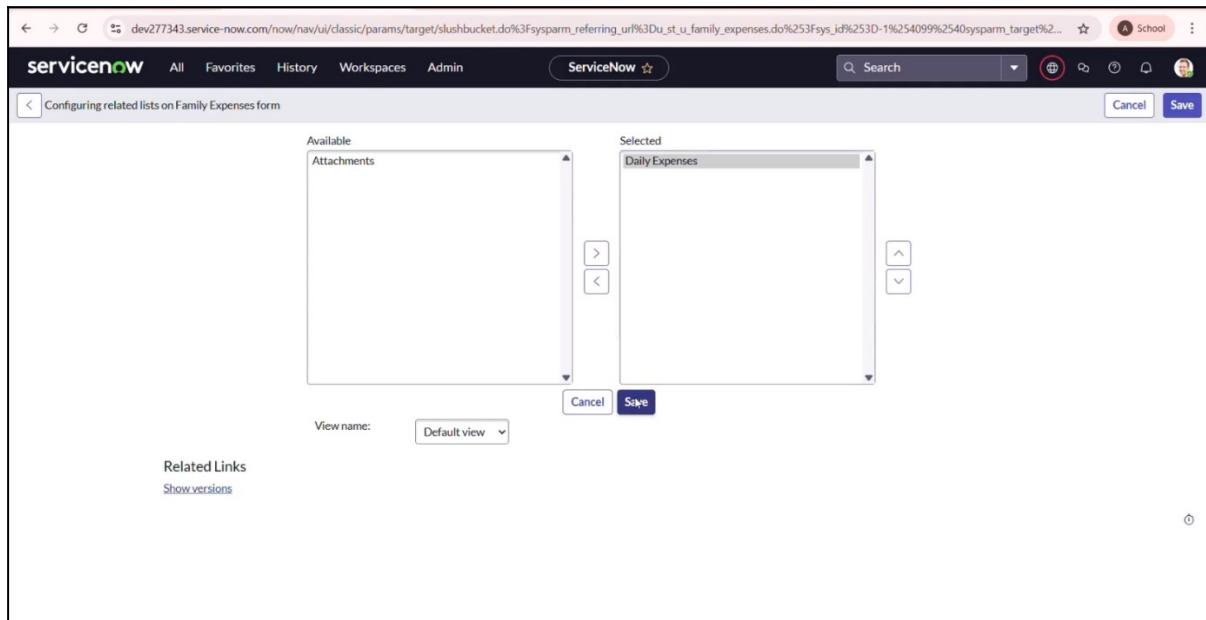
- a. Go to all >> search Relationships >> open relationships
- b. Click on New
- c. Name : Daily Expenses
Applies to table : Select Family Expenses
Daily Expenses : Select Daily Expenses
- d. Click save



Configuring Related list on family expenses

Set up a related list in the family expenses form to view all liked daily expenses for easy reference

- a. Go to all>>search “Family Expenses”>>open family Expenses
- b. Click new >> configure
- c. add Daily Expenses to the Selected area
- e. Click on save



Creation of Business Rules

Implemented business logic using Business Rules to automate tasks like field validations, updates, or notifications.

a. Go to all>>search>>Business Rules

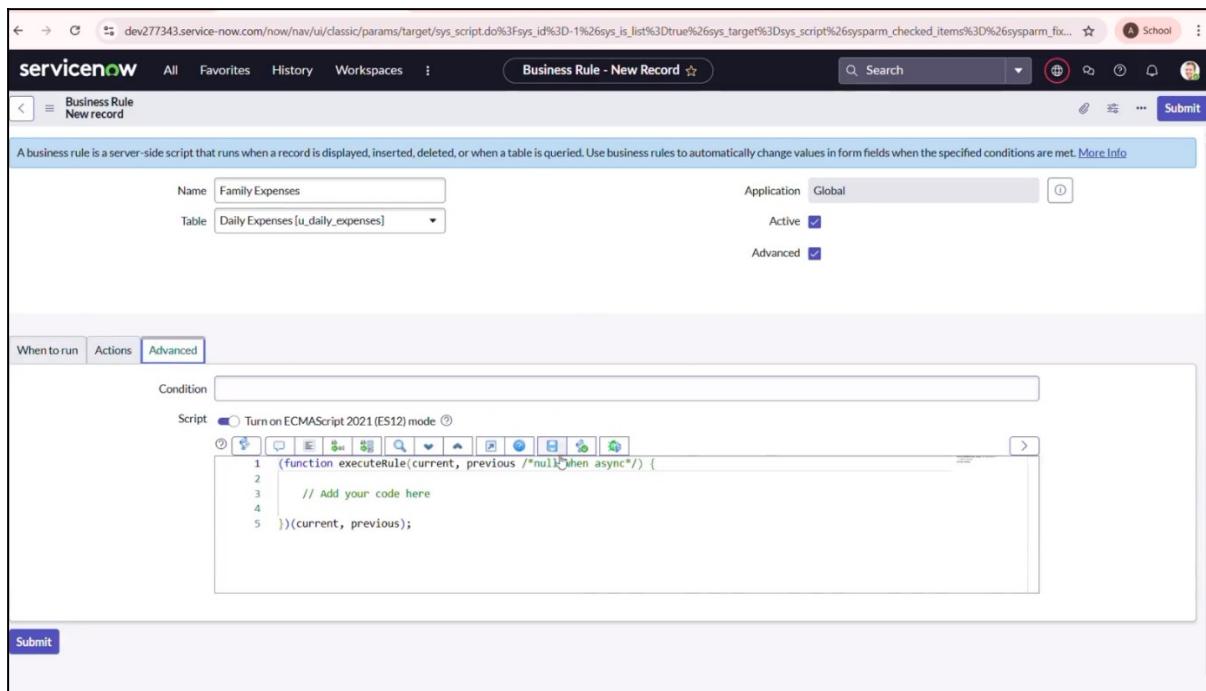
b. Click new

c. Name : Family Expenses BR

Table : Select Daily Expenses

d. In when to run check insert and update

e. Write the code



Configure the Relationship

Used ServiceNow's dictionary setting to fine-tune the relationship (one-to-many) between the tables for accurate data linkage.

- a. Go to all>>search>>open relationship
- b. Open Daily Expenses Relationship
- c. For applies to table : Select Family Expenses
- d. In Query with
- e. Click Update

ServiceNow Developers | Daily Expenses | Relationship | +

Relationship - Daily Expenses

Name: Daily Expenses

Application: Global

Applies to table: Family Expenses [u_st_u_family_expenses]

Queries from table: Daily Expenses [u_daily_expenses]

This script refines the query in current that will populate the related list. For more information about it, its parameters and control variables, see [the documentation](#). See also the article about the recommended form of the script.

Query with: Turn on ECMAScript 2021 (ES12) mode

```
// Add your code here, such as current.addQuery(field, value);
current.addQuery('u_date',parent.u_date);
current.query();
```

Update Delete

Related Links

Run Point Scan

ServiceNow Developers | ServiceNow | +

ServiceNow

Creator Studio

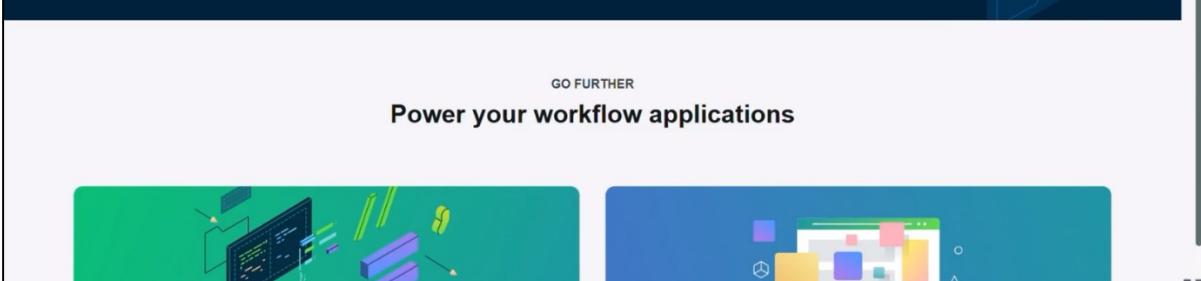
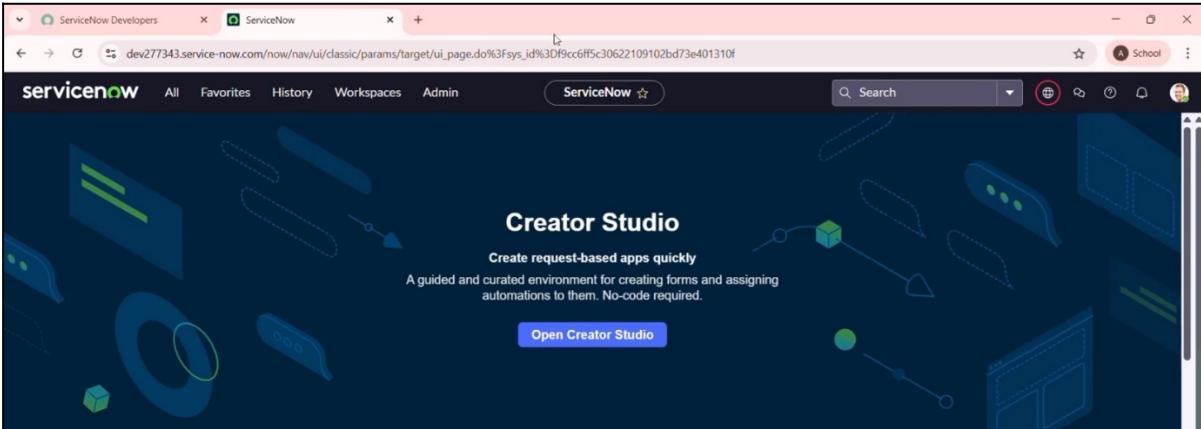
Create request-based apps quickly

A guided and curated environment for creating forms and assigning automations to them. No-code required.

Open Creator Studio

GO FURTHER

Power your workflow applications



Conclusion

Used ServiceNow to implement and tested the end-to-end application and confirmed that it allows for efficient recording, tracking, and management of family expenses, providing users with a real-time financial overview.