

Project title : Calculating Family Expenses Using Servicenow

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CALCULATING FAMILY EXPENSES USING SERVICENOW

Aim of the project

To develop a centralized and automated platform that helps individuals or families track, manage, and optimize their expenses with ease. The goal is to promote financial discipline and simplify budget planning by using the powerful features of ServiceNow like scripting, reporting, and process automation. The project aims to develop a comprehensive expense calculation system using ServiceNow. This system will enable users to track and manage family expenses efficiently. It will include features such as expense categorization, budget setting, real-time tracking, and reporting capabilities. Utilizing ServiceNow's robust platform, the project will ensure seamless integration, user-friendly interface, and scalability to accommodate varying family sizes and financial complexities. The end goal is to empower users with the tools they need to make informed financial decisions and promote financial well-being within the family unit.

Milestone-1

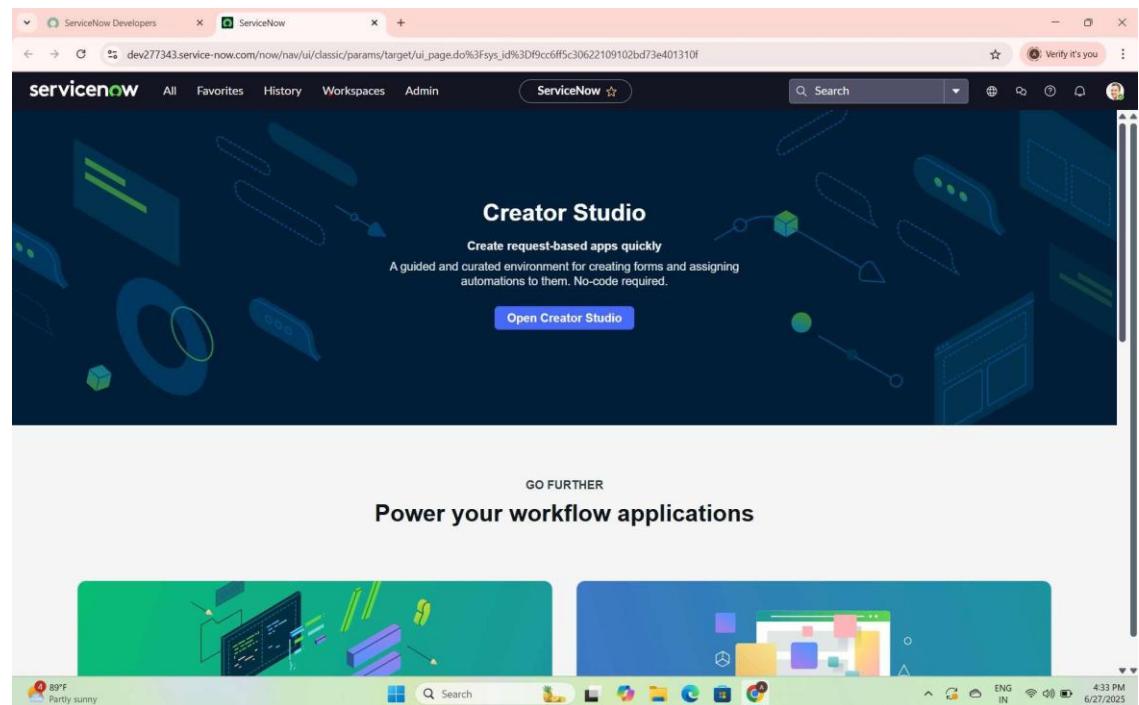
Setting up servicenow instance

1. Sign up for a developer account on the ServiceNow Developer site "<https://developer.servicenow.com>".
2. Once logged in, navigate to the "Personal Developer Instance" section.
3. Click on "Request Instance" to create a new ServiceNow instance.
4. Fill out the required information and submit the request.
5. You'll receive an email with the instance details once it's ready.
6. Log in to your ServiceNow instance using the provided credentials.
7. Now you will navigate to the ServiceNow.

The screenshot shows the ServiceNow Developer portal homepage. At the top, there's a navigation bar with links for 'Developer', 'Learn', 'Reference', 'Guides', and 'Connect'. A search bar and a 'Sign In' button are also present. The main headline reads 'Build powerful apps. Solve real problems.' Below it, a sub-headline says 'Start coding, testing, and deploying on the ServiceNow Platform - fast. Build solutions that scale, automate workflows, integrate across systems, and make work simpler for everyone.' A 'Sign up and Start Building' button is visible. To the right, there's a promotional banner for 'CreatorCon' with the text 'Join Us at CreatorCon - Don't Miss Out!', 'BUILD. LEARN. CONNECT. IT'S ALL HAPPENING AT creatorcon', and a 'Watch on YouTube' link.



The screenshot shows the ServiceNow Developer Portal login page. The URL is 'signon.servicenow.com/x_snc_sso.auth.do?pageld=login'. The page has a dark background with a large graphic of a human head composed of puzzle pieces. Inside the head, several small figures are working on the pieces. The text on the left side says 'Solve problems.', 'Explore resources.', and 'Get help.'. On the right, there's a sign-in form with fields for 'Email' (containing 'varadharajunaya@gmail.com') and a 'Next' button. Below the form is a link 'New user? Get a ServiceNow ID'. At the bottom right, there's a link 'Need assistance with sign in?' and a small icon of a person with a question mark. The taskbar at the bottom shows various application icons and the date '19-02-2026'.



Milestone-2

Creation Of New Update Set

1. Go to All >> In the filter search for Local Update set > click on New.
2. Enter the Details as: Name : Family Expenses
3. Then click on Submit and Make current.

Project

The screenshot shows two main windows from the ServiceNow platform.

The top window is titled "Creator Studio" and displays a search results page for "Local Update Sets". It includes a call-to-action button "Open Creator Studio". Below this, there's a section titled "GO FURTHER Power your workflow applications" with two preview images of different applications.

The bottom window is titled "Update Set - Family Expenses" and shows the details of a specific update set. The form fields include:

* Name	Family Expenses	Application	Global
State	In progress	Created	2025-06-20 01:47:09
Parent		Created by	admin
Release date		Merged to	
Install date			
Installed from			
Description			

Below the form, there's a "Related Links" section with links like "Make This My Current Set", "Merge With Another Update Set", and "Scan Update Set". A "Customer Updates (58)" tab is selected in the navigation bar, showing a list of recent updates:

Created	Type	View	Target name	Updated by	Remote update set	Action
2025-06-23 00:00:25	Password Reset Process	Service-Desk Password Reset for Local ServiceNow	admin	(empty)		INSERT_OR_UPDATE
2025-06-20 23:30:00	CMDB Workspace Multisource Class Metadata		admin	(empty)		INSERT_OR_UPDATE
2025-06-20 01:48:28	Application Menu	Family Expenditure	admin	(empty)		INSERT_OR_UPDATE

Milestone-3

Creation Of Family Expenses Table

1. Go to All > In the filter search for Tables > click on New.

Project

The screenshot shows the ServiceNow web interface. A red arrow points to the 'Tables' option in the 'Tables' menu, which is part of the 'System Definition' section. The main content area features a banner for 'Creator Studio' with the tagline 'Create request-based apps quickly' and a button to 'Open Creator Studio'. Below this, there's a section titled 'GO FURTHER Power your workflow applications' with two decorative cards.

2. Enter the Details: Label : Family Expenses Name : Auto-Populated New menu name : Family Expenditure
3. Go to the Header and right click there>> click on Save.

Creation of columns(fields)

4. Near Columns Double click near insert a new row.
5. Give the details as: Column label : Number Type : String
6. Double click on insert a new row again
7. Give the details as: Column label : Date Type : Date
8. Double click on insert a new row again
9. Give the details as: Column label : Amount Type : Integer
10. Double click on insert a new row again
11. Give the details as: Column label : Expense Details Type : String Max length : 800
12. Go to the Header and right click there>> click on Save.

The screenshot shows the ServiceNow 'Tables' screen. A new table named 'Family Expenses' is being created. In the top right, there are checkboxes for 'Create module' (checked), 'Create mobile module' (checked), and 'Add module to menu' (dropdown set to 'Create new'). The 'New menu name' field is empty. On the left, there are tabs for 'Columns', 'Controls', and 'Application Access'. The 'Columns' tab is active, displaying a table of columns with their details. At the bottom, there are 'Delete' and 'Update' buttons.

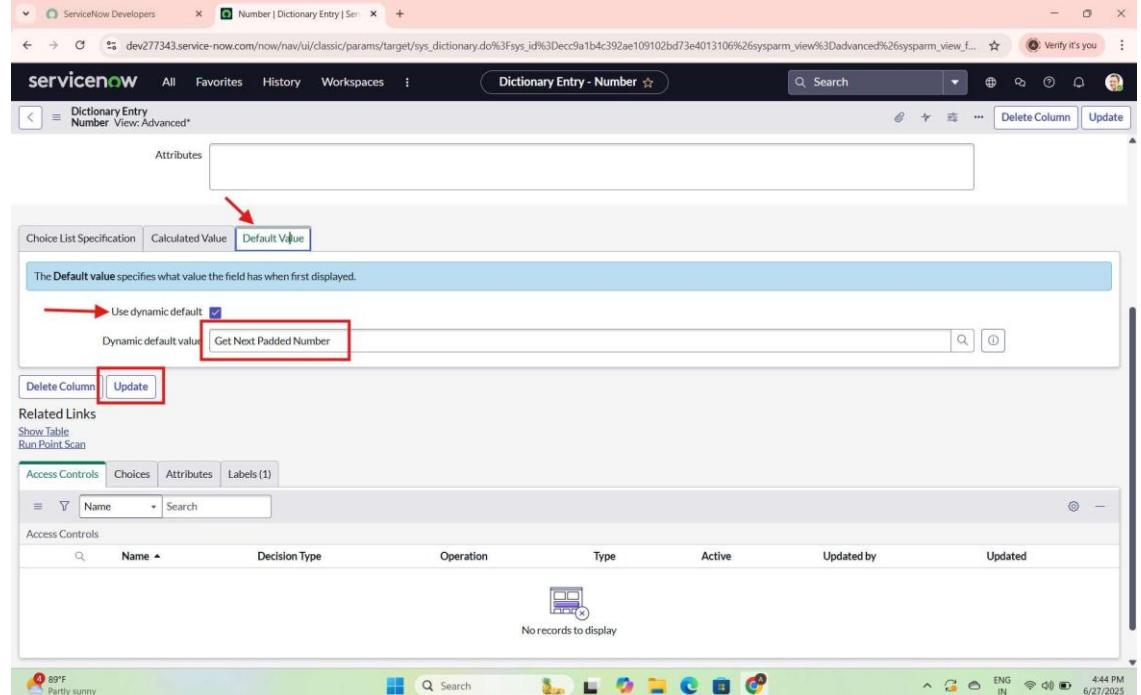
Column label	Type	Reference	Max length	Default value	Display
Expense Details	String	(empty)	800		false
Amount	Integer	(empty)	40		false
Sys ID	Sys ID (GUID)	(empty)	32		false
Date	Date	(empty)	40		false
Number	String	(empty)	40	javascript:getNextObjNumberPadded();	false

Making Number Field An Auto-Number

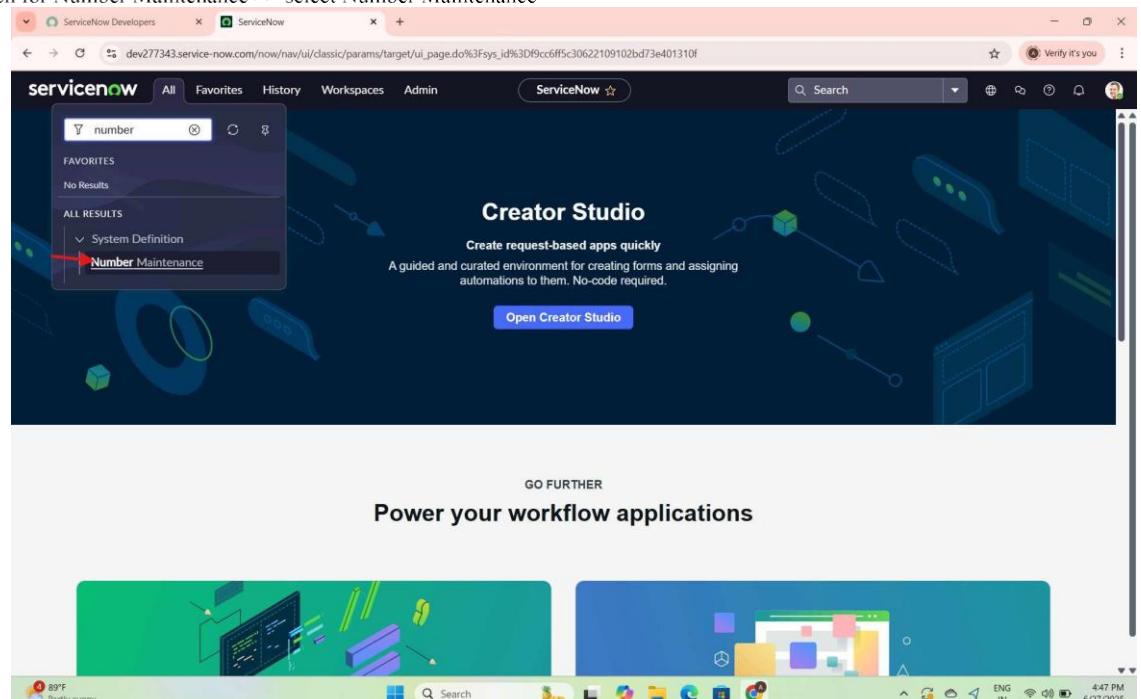
1. Double click on the Number Field/Column.
2. Go down and double click on Advanced view

Project

3. In Default Value: Use dynamic default : check the box Dynamic default value : Get Next Padded Number
4. Click on Update.



5. Go to All >> In the filter search for Number Maintenance >> select Number Maintenance



6. Click on New.
7. Enter the below Details: Table : Family Expenses Prefix : MFE
8. Click on Submit.

Project

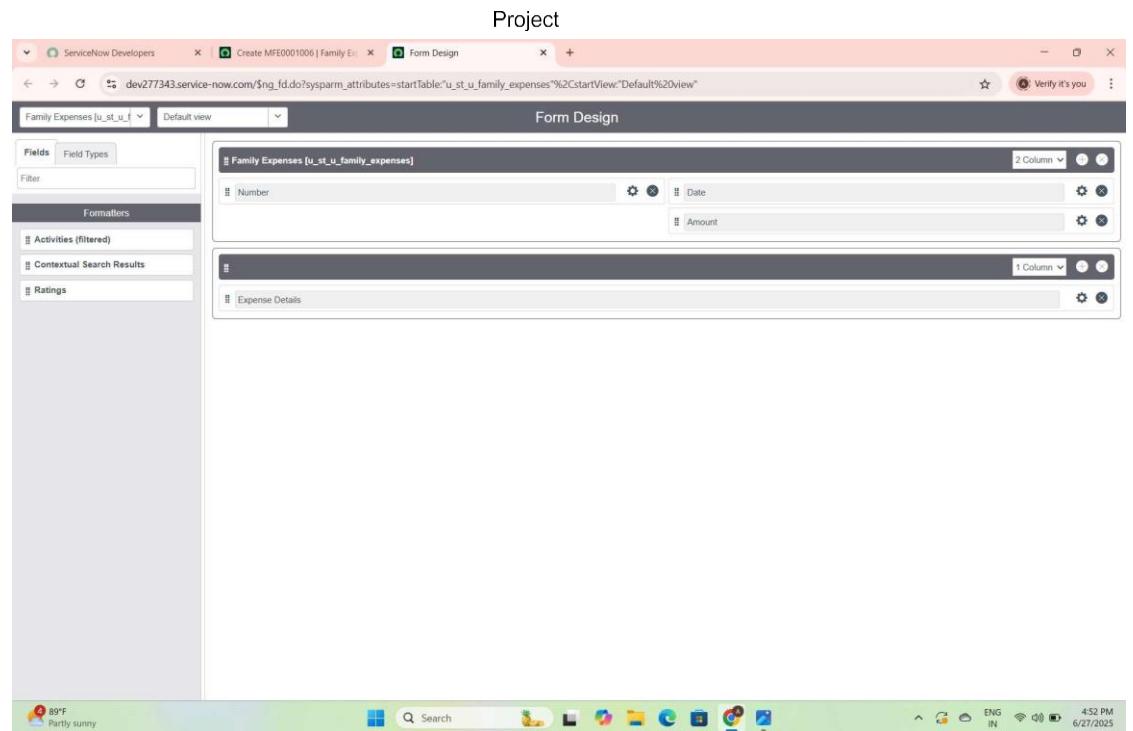
The screenshot shows the ServiceNow configuration interface for creating a new number series. The title bar says "Number - MFE". The main area has fields for "Table" (set to "Family Expenses"), "Prefix" (set to "MFE"), "Number" (set to "1,000"), "Application" (set to "Global"), and "Number of digits" (set to "7"). Below the form are "Update" and "Delete" buttons, and a "Related Links" section with a "Show Counter" link. The status bar at the bottom shows "Upcoming Earnings" and the date "6/27/2025".

. Configure the form

1. Go to All >> In the filter search for Family Expenses >> Open Family Expenses
2. Click on New
3. Go to the Header and right click there >> click on Configure >> Select Form Design

The screenshot shows the ServiceNow create screen for a new family expense entry. The title bar says "Family Expenses - Create MFE0001006". A context menu is open under the "Configure" option in the header, with "Form Design" selected. The main area shows fields for "Date" and "Amount". The status bar at the bottom shows "Upcoming Earnings" and the date "6/27/2025".

4. Customize or Drag Drop the form as per your requirement.
5. Make Number Read-Only Field by clicking on the gear icon and checking Read-Only
6. Make Date, Amount Mandatory Field by clicking on the gear icon and checking Mandatory
7. Click on Save.



Milestone-4

Creation Of Daily Expenses Table

1. Go to All > In the filter search for Tables > click on New.
2. Enter the Details: Label : Daily Expenses Name : Auto-Populated Add Module to menu : Family Expenditure
3. Go to the Header and right click there>> click on Save.

Creation of columns(fields)

4. Near Columns Double click near insert a new row.
5. Give the details as: Column label : Number Type : String
6. Double click on insert a new row again
7. Give the details as: Column label : Date Type : Date
8. Double click on insert a new row again
9. Give the details as: Column label : Expense Type : Integer
10. Double click on insert a new row again
11. Give the details as: Column label : Family Member Name Type : Reference Max length : 800
12. Double click on insert a new row again
13. Give the details as: Column label : Comments Type : String Max length : 800
14. Go to the Header and right click there>> click on Save.

Project

The screenshot shows the ServiceNow Developers interface with the 'Table - Daily Expenses' page open. At the top, there are tabs for 'All', 'Favorites', 'History', 'Workspaces', and 'Admin'. Below the tabs, the table name 'Daily Expenses' is displayed with its label 'Daily Expenses' and name 'u_daily_expenses'. The application is set to 'Global'. A 'Remote Table' button is also present.

The main area shows the 'Dictionary Entries' section for the 'Table Columns' view. It lists various columns with their properties:

	Column label	Type	Reference	Max length	Default value	Display
X	Comments	String	(empty)	800		false
X	Expense	Integer	(empty)	40		false
X	Family Member Name	Reference	.NET Application	32		false
X	Number	String	(empty)	40	javascript.getNextObjNumberPadded();	false
	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
X	Date	Date	(empty)	40		false

At the bottom of the table configuration screen, there is a message: 'Insert a new row...'.

. Making Number Field An Auto-Number

15. Double click on the Number Field/Column.
16. Go down and double click on Advanced view
17. In Default Value: Use dynamic default : check the box Dynamic default value : Get Next Padded Number
18. Click on Update.

The screenshot shows the ServiceNow Developers interface with the 'Dictionary Entry - Number' page open. At the top, there are tabs for 'All', 'Favorites', 'History', 'Workspaces', and 'Dictionary Entry - Number'. Below the tabs, the table name 'Daily Expenses [u_daily_expenses]' is displayed with its type 'String' and column label 'Number'. The column name is 'u_number' and the max length is 40. The 'Active' checkbox is checked. The 'Function field' and 'Read only' checkboxes are checked. The 'Mandatory' and 'Display' checkboxes are unchecked.

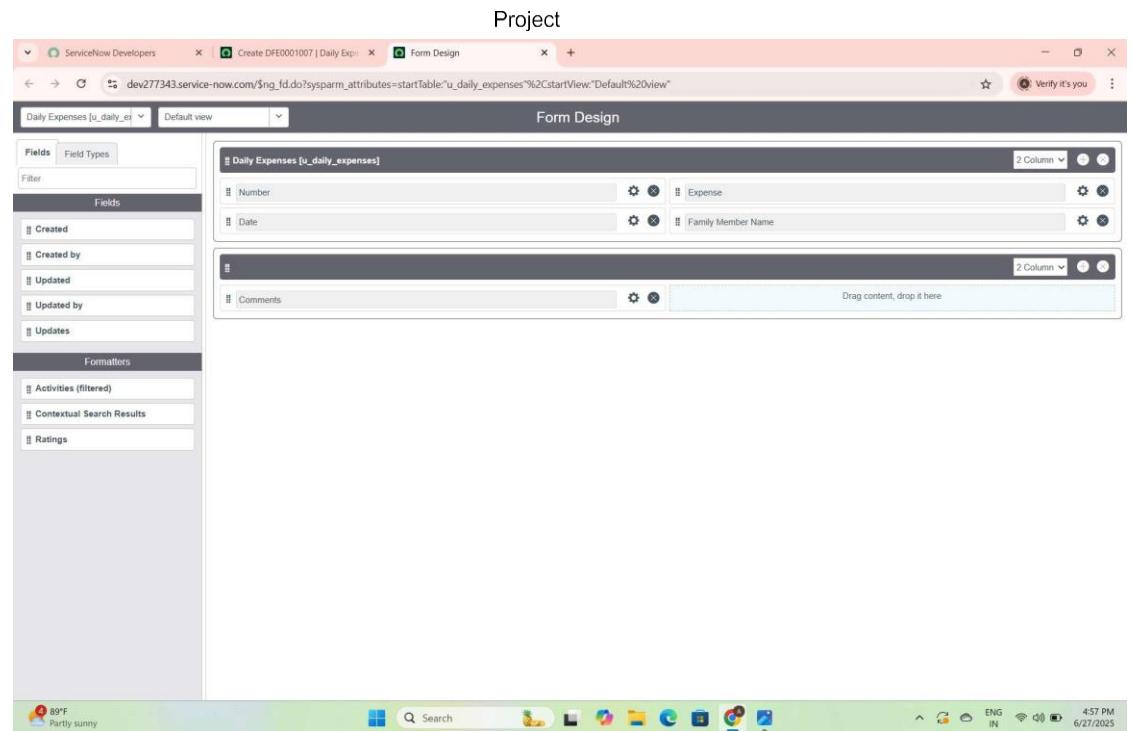
The main area shows the 'Attributes' section. Below it, there are tabs for 'Choice List Specification', 'Calculated Value', and 'Default Value'. The 'Default Value' tab is selected, highlighted with a red arrow. It contains the text: 'The Default value specifies what value the field has when first displayed.' Below this, there is a checkbox 'Use dynamic default' which is checked, and a dropdown menu 'Dynamic default value' containing the option 'Get Next Padded Number', which is also circled with a red circle.

At the bottom of the configuration screen, there are buttons for 'Delete Column', 'Update' (which is circled with a red circle), 'Related Links', 'Show Table', and 'Run Point Scan'.

19. Go to All >> In the filter search for Number Maintenance >> select Number Maintenance
20. Click on New.
21. Enter the below Details: Table : Family Expenses Prefix : DFE
22. Click on Submit.

. Configure the form

23. Go to All >> In the filter search for Daily Expenses >> Open Daily Expenses
24. Click on New
25. Go to the Header and right click there>> click on Configure >> Select Form Design
26. Customize or Drag Drop the form as per your requirement.



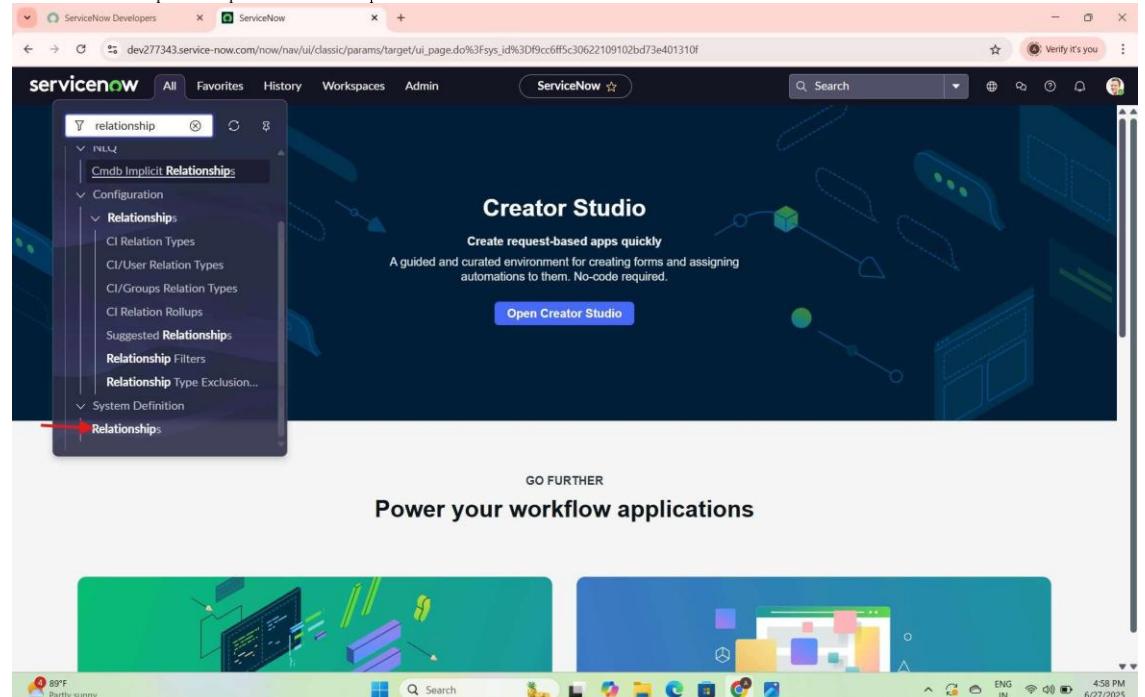
27. Make Number Read-Only Field by clicking on the gear icon and checking Read-Only
28. Make Date, Family Member Name Mandatory Field by clicking on the gear icon and checking Mandatory
29. Click on Save.

Milestone-5

Creation Of Relationship

. Creation Of Relationship Between Family Expenses And Daily Expenses

1. Go to All >> In the filter search for Relationships >> Open Relationships



2. Click on New.
3. Enter the details: Name : Daily Expenses Applies to table : Select Family Expenses Daily Expenses : Select Daily Expenses
4. Click Save.

Project

The screenshot shows the ServiceNow Developers interface with a tab titled "Relationship - Daily Expenses". The main area contains a script editor with the following code:

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

(current, parent);
```

Below the script editor are "Update" and "Delete" buttons. Further down, there are "Related Links" and "Run Point Scan" buttons. The bottom of the screen shows a Windows taskbar with various icons and a system tray indicating the date and time as 6/27/2025.

Milestone-6

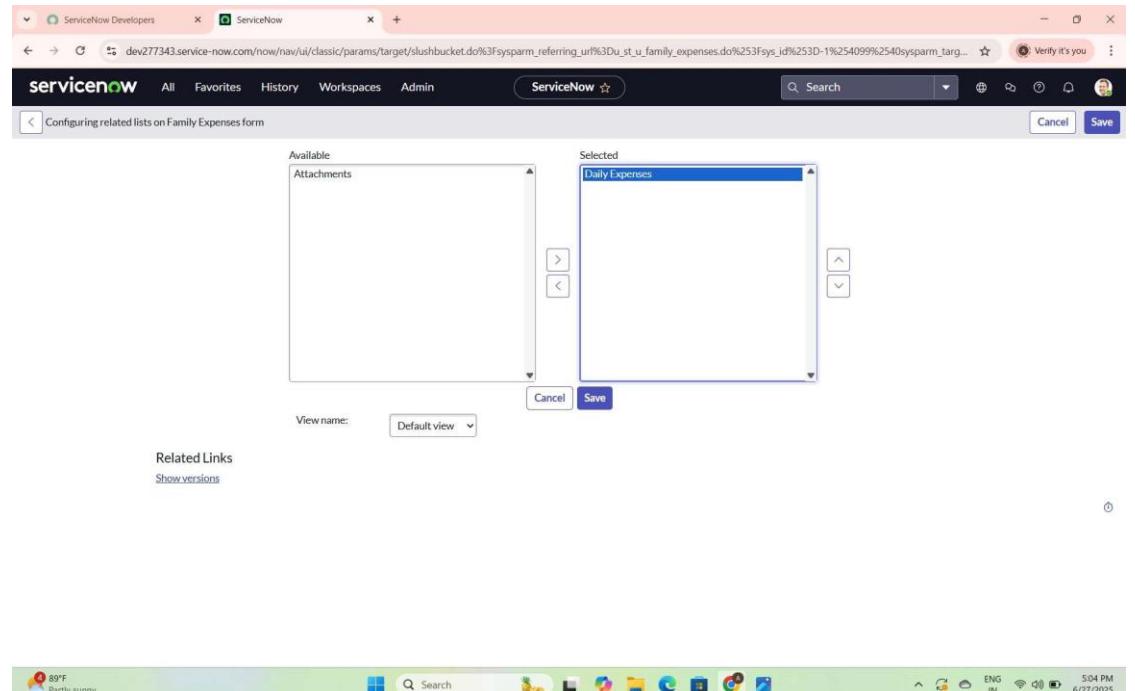
Configuring Related List On Family Expenses

1. Go to All >> In the filter search for Family Expenses >> Open Family Expenses
2. Click on New
3. Go to the Header and right click there>> click on Configure >> Select Related Lists

The screenshot shows the ServiceNow Developers interface with a tab titled "Family Expenses - Create MFE0001007". A context menu is open over the header, with the "Related Lists" option highlighted. The menu also includes options like Save, Configure, Export, Create Favorite, Copy URL, Copy sys_id, and Reload form. The main area shows a "Number" field with "MFE0001007" and an "Expense Details" section. At the bottom left is a "Submit" button. The bottom of the screen shows a Windows taskbar with various icons and a system tray indicating the date and time as 6/27/2025.

4. Add Daily Expenses to the Selected Area.
5. Click on Save

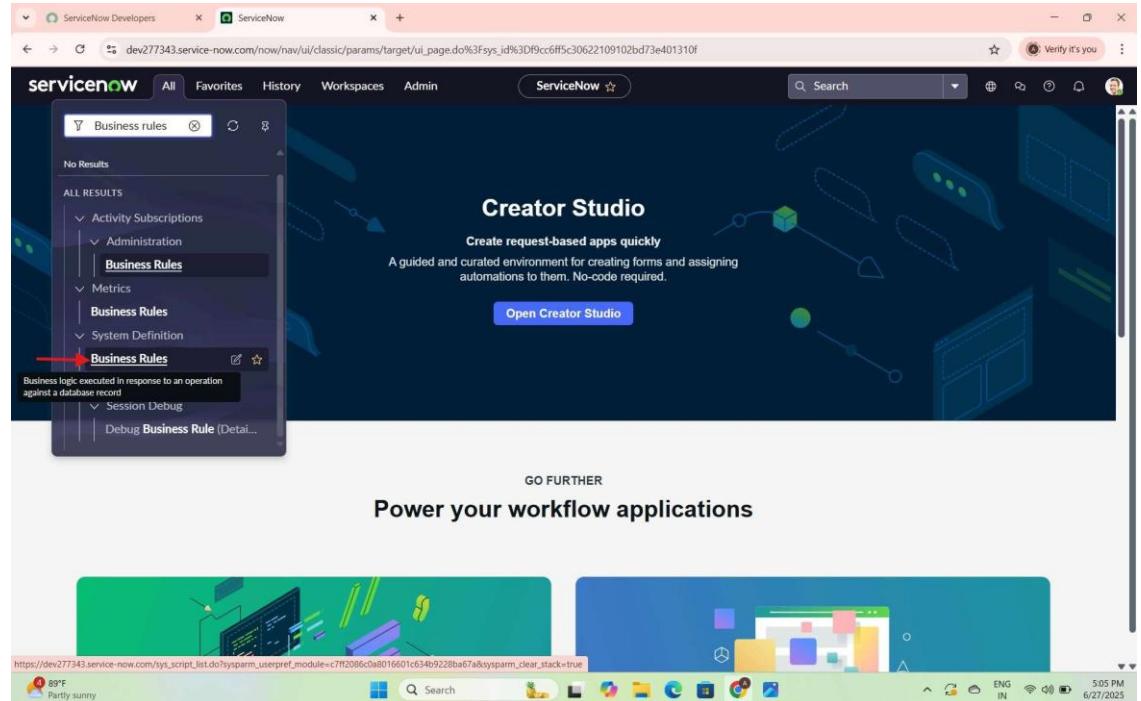
Project



Milestone-7

Creation Of Business Rules

1. Go to All >> In the filter search for Business Rules.
2. Under System Definition Select Business Rules then click on New.



3. Enter the Details: Name : Family Expenses BR Table : Select Daily Expenses Check Advanced
4. In when to run Check Insert and Update

Project

A business rule is a server-side script that runs when a record is displayed, inserted, deleted, or when a table is queried. Use business rules to automatically change values in form fields when the specified conditions are met. [More Info](#)

Name: Family Expenses
Table: Daily Expenses [u_daily_expenses]

When to run:

- When: before
- Order: 100
- Insert:
- Update:
- Delete:
- Query:

Filter Conditions: Add Filter Condition, Add OR Clause
--choose field-- --oper-- --value--

Role conditions:

- In Advance(we write the code) Write the below code >> (function executeRule(current, previous /*null when async*/) { var FamilyExpenses = new GlideRecord('u_family_expenses'); FamilyExpenses.addQuery('u_date',current.u_date); FamilyExpenses.query(); if(FamilyExpenses.next()) { FamilyExpenses.u_amount += current.u_expense; FamilyExpenses.u_expense_details += ">" + current.u_comments + ":" + "Rs." + current.u_expense + "-"; FamilyExpenses.update(); } else { var NewFamilyExpenses = new GlideRecord('u_family_expenses'); NewFamilyExpenses.u_date = current.u_date; NewFamilyExpenses.u_amount = current.u_expense; NewFamilyExpenses.u_expense_details += ">" + current.u_comments + ":" + "Rs." + current.u_expense + "-"; NewFamilyExpenses.insert(); } })(current, previous);
- Go to the Header and right click there>> click on Save.

Name: Family Expenses
Table: Daily Expenses [u_daily_expenses]

Advanced:

Condition: Turn on ECMAScript 2021 (ES12) mode

```

1 (function executeRule(current, previous /*null when async*/) {
2
3
4 var FamilyExpenses = new GlideRecord('u_family_expenses');
5
6 FamilyExpenses.addQuery('u_date',current.u_date);
7
8 FamilyExpenses.query();
9
10 if(FamilyExpenses.next())
11 {
12
13 FamilyExpenses.u_amount += current.u_expense;
14 FamilyExpenses.u_expense_details += ">" + current.u_comments + ":" + "Rs." + current.u_expense + "-";
15 FamilyExpenses.update();
16
17
18
19
}
}
})(current, previous);

```

Milestone-8

Configure The Relationship

- Go to All >> In the filter search for Relationships >> Open Relationships.
- In that, open Daily Expenses Relationship.
- For Applies to table : Select Family Expenses.
- In Query with : write the below Query. (function refineQuery(current, parent) { // Add your code here, such as current.addQuery(field, value); current.addQuery('u_date',parent.u_date); current.query(); })(current, parent);

Project

5. Click on Update.

The screenshot shows the ServiceNow Developers interface with the following details:

- Page Title:** Relationship - Daily Expenses
- Header:** Name: Daily Expenses, Application: Global, Applies to table: Family Expenses [u_st_u_family_expenses], Queries from table: Daily Expenses [u_daily_expenses]
- Script Editor:** Contains the following code:

```
1 (function refineQuery(current, parent) {  
2  
3  
4 // Add your code here, such as current.addQuery(field, value);  
5 current.addQuery('u_date',parent.u_date);  
6  
7 current.query();  
8  
9  
10 }) (current, parent);
```
- Action Buttons:** Update (highlighted with a red box), Delete
- Bottom Bar:** Shows weather (90°F, Partly sunny), search bar, and system status (ENG IN, 5:11 PM, 6/27/2023).

Conclusion

In conclusion, implementing the "Calculation of Family Expenses Using ServiceNow" project offers numerous benefits to the household. By leveraging the robust capabilities of ServiceNow, family members can efficiently submit, track, and manage their expenses in a centralized and streamlined manner.