

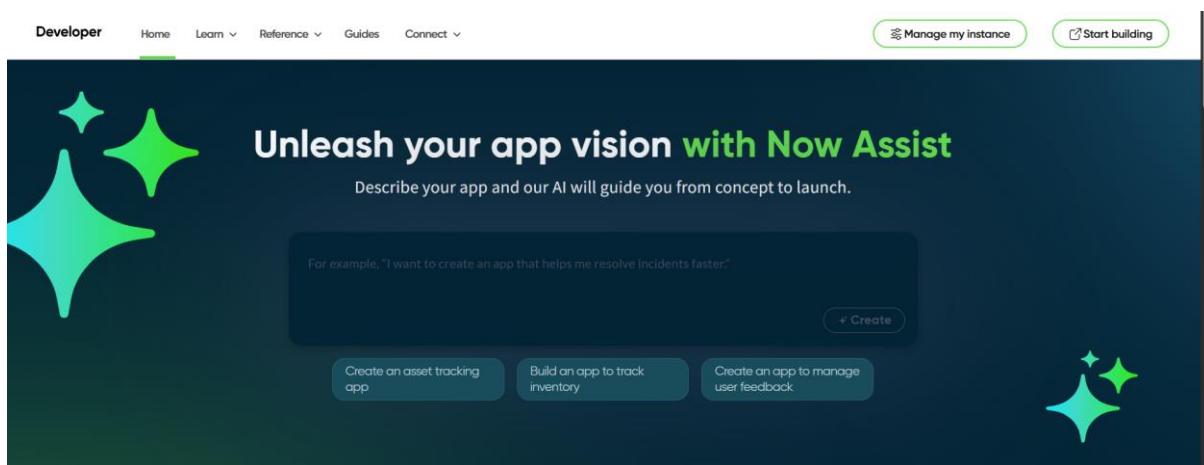
# Calculating Family Expenses using Service Now

## 1. Setting up Service Now Instance

Sign up for a developer account at [developer.servicenow.com](https://developer.servicenow.com).

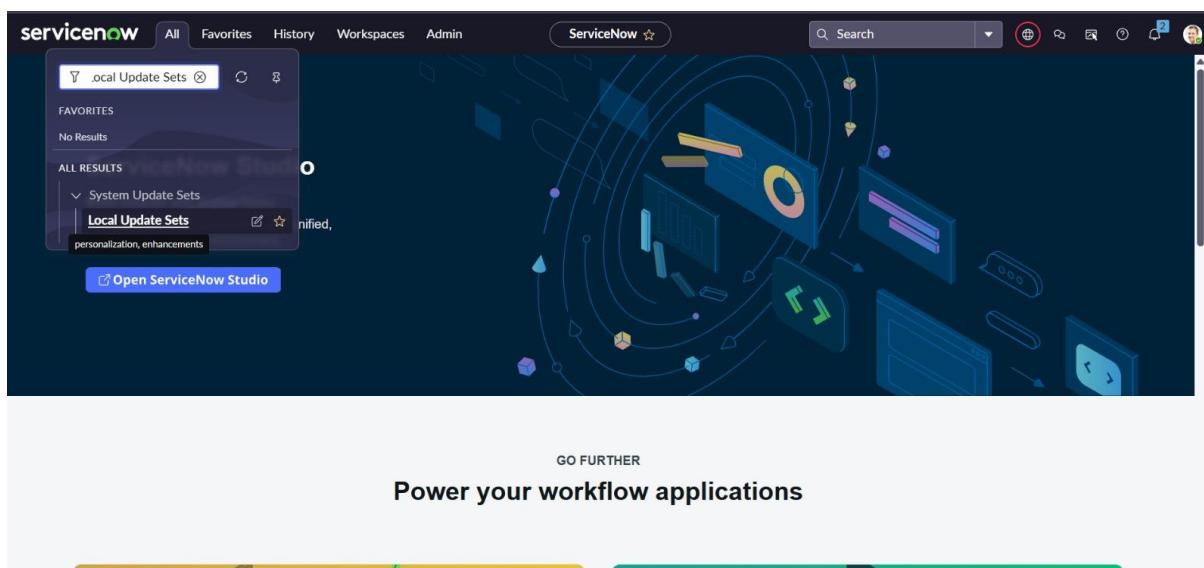
Go to Personal Developer Instance → Request Instance and fill in the required details.

Once your instance is ready, log in using the provided credentials to access Service Now.



## 2. Creation of New Update Set

In the filter navigator, search Local Update Set → click New.



Enter Name: Family Expenses, then click Submit and Make Current.

The screenshot shows the 'Update Set' screen for a record named 'Family Expenses'. The record details are as follows:

* Name	Family Expenses	Application	Global
State	In progress	Created	2025-10-29 22:10:32
Parent		Created by	admin
Release date		Merged to	
Install date			
Installed from			
Description			

At the bottom left are 'Update' and 'Delete' buttons.

### 3. Creation of Family Expenses Table

In the filter navigator, search Tables → click New.

Enter Label: Family Expenses, Menu Name: Family Expenditure, then right-click the header and select Save.

The screenshot shows the 'Table' creation screen for a new table named 'Family\_Expenses'. The table details are as follows:

* Label	Family_Expenses	Application	Global
* Name	u_family_expenses	Remote Table	

### 4. Creation of Columns (Fields)

Add new rows under **Columns** with the following details:

- **Number** – String
- **Date** – Date
- **Amount** – Integer
- **Expense Details** – String (Max length: 800)

Table Family\_Expenses

\* Label: Family\_Expenses  
\* Name: u\_family\_expenses

Application: Global

Remote Table:

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

Table Columns

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

Insert a new row...

Delete Update Delete All Records

Access Controls (4)

Name	Decision Type	Operation	Type	Active	Updated by	Updated
u_family_expenses	Allow If	delete	record	true	admin	2025-10-31 17:39:42
u_family_expenses	Allow If	write	record	true	admin	2025-10-31 17:39:42
u_family_expenses	Allow If	create	record	true	admin	2025-10-31 17:39:41
u_family_expenses	Allow If	read	record	true	admin	2025-10-31 17:39:42

Right-click the header and select **Save**.

## 4. Making Number Field an Auto-Number

Open the Number field → Advanced view.

Check Use dynamic default and select Get Next Padded Number, then click Update.

The screenshot shows the 'Dictionary Entry' screen for the 'Number' field. The top navigation bar includes 'Delete Column', 'Update', and other standard icons. The main configuration area has the following settings:

- \* Table: Family\_Expenses [u\_family\_expenses]
- \* Type: String
- \* Column label: Number
- \* Column name: u\_number
- \* Max length: 40
- Application: Global
- Active: checked
- Function field: none
- Read only: unchecked
- Mandatory: unchecked
- Display: unchecked

A note below the fields states: "Alters the behavior of a field or functionality that depends on the field. [More Info](#)".

The 'Attributes' section is empty.

At the bottom, there are tabs for 'Choice List Specification', 'Calculated Value', and 'Default Value'. The 'Default Value' tab is selected, showing the configuration:

- Use dynamic default: checked
- Dynamic default value: Get Next Padded Number

Search Number Maintenance → click New.

Set Table: Family Expenses, Prefix: MFE, and click Submit.

The screenshot shows the 'Number' maintenance screen. The top navigation bar includes 'Update', 'Delete', and other standard icons. The form fields are as follows:

- \* Table: Family\_Expenses
- Prefix: MFE
- \* Number: 1,000
- Application: Global
- Number of digits: 7

At the bottom left are 'Update' and 'Delete' buttons. Below the form, under 'Related Links', is a link to 'Show Counter'.

## 5. Configure the Form

Search Family Expenses and open it.

Click New, then right-click the header → Configure → Form Design.

Arrange fields as needed.

Set Number as *Read-only* and make Date and Amount *Mandatory*.

Click Save.

## 6. Creation of Daily Expenses Table

Search Tables → click New.

Enter Label: Daily Expenses, add to Menu: Family Expenditure, then right-click the header and select Save.

Column label	Type	Reference	Max length	Default value	Display
Updated by	String	(empty)	40		false
Sys ID	Sys ID (GUID)	(empty)	32		false
Updates	Integer	(empty)	40		false
Expense	Integer	(empty)	40		false
Family Member Name	Reference	User	32		false
Updated	Date/Time	(empty)	40		false
comments	String	(empty)	800		false
Number	String	(empty)	40	javascript:getNextObjNumberPadded();	false
Created by	String	(empty)	40		false
Date	Date	(empty)	40		false

The screenshot shows the 'Dictionary Entries' screen for the 'Daily\_Expenses' table. At the top, there are tabs for 'Columns', 'Controls', and 'Application Access'. Below the tabs is a search bar with the placeholder 'Search' and a dropdown menu set to 'Table Columns for text'. A status bar at the top right indicates '1 to 11 of 11'.

Column label	Type	Reference	Max length	Default value	Display
Updated by	String	(empty)	40		false
Sys ID	Sys ID (GUID)	(empty)	32		false
Updates	Integer	(empty)	40		false
Expense	Integer	(empty)	40		false
Family Member Name	Reference	User	32		false
Updated	Date/Time	(empty)	40		false
Comments	String	(empty)	800		false
Number	String	(empty)	40	javascript:getNextObjNumberPadded();	false
Created by	String	(empty)	40		false
Date	Date	(empty)	40		false
Created	Date/Time	(empty)	40		false

At the bottom of the table, there is a link 'Insert a new row...' and a footer with buttons for 'Delete', 'Update', and 'Delete All Records'.

The screenshot shows the 'Access Controls' screen for the 'Daily\_Expenses' table. At the top, there are tabs for 'Access Controls (4)', 'Security Data Filters (1)', 'Labels (1)', 'Database Indexes (2)', and 'Table Subscription Configuration (1)'. Below the tabs is a search bar with the placeholder 'Search' and a dropdown menu set to 'Decision Type'.

Name	Decision Type	Operation	Type	Active	Updated by	Updated
u_daily_expenses	Allow If	create	record	true	admin	2025-10-31 17:56:33
u_daily_expenses	Allow If	write	record	true	admin	2025-10-31 17:56:33
u_daily_expenses	Allow If	read	record	true	admin	2025-10-31 17:56:33
u_daily_expenses	Allow If	delete	record	true	admin	2025-10-31 17:56:33

At the bottom of the table, there is a link '1 to 4 of 4' and a footer with a button 'Actions on selected rows...'.

## 7. Making Number Field an Auto-Number

Open the Number field → Advanced view.

Enable Use dynamic default and choose Get Next Padded Number, then click Update

The screenshot shows the 'Dictionary Entry' screen for the 'u\_number' column in the 'Daily\_Expenses' table. At the top, it says 'View: Advanced\*'. The table structure is as follows:

* Table	Daily_Expenses [u_daily_expenses]
* Type	String
* Column label	Number
* Column name	u_number
* Max length	40

On the right side, there are application settings:

- Application: Global
- Active:
- Function field:
- Read only:
- Mandatory:
- Display:

Below the table, there is an 'Attributes' section with an empty text input field.

At the bottom, there are tabs for 'Reference Specification', 'Choice List Specification', 'Function Definition', 'Dependent Field', 'Calculated Value', and 'Default Value'. The 'Default Value' tab is active.

In the 'Default Value' tab, the 'Use dynamic default' checkbox is checked, and the 'Dynamic default value' field contains 'Get Next Padded Number'.

At the very bottom, there are buttons for 'Delete Column' and 'Update'.

Search Number Maintenance → New.

Set Table: Daily Expenses, Prefix: DFE, and click Submit.

Number DFE

\* Table: Daily\_Expenses

Prefix: DFE

\* Number: 1,000

Application: Global

Number of digits: 7

Update Delete

Related Links  
Show Counter

## 8. Configure the Form

Search Daily Expenses and open it.

Click New, then right-click the header → Configure → Form Design.

Arrange fields as needed.

Set Number as *Read-only* and make Date and Family Member Name *Mandatory*.

Click Save.

Default view

Form Design

Daily\_Expenses [u\_daily\_expenses]

Fields	Field Types
Filter	
<input type="checkbox"/> Created	
<input type="checkbox"/> Created by	
<input type="checkbox"/> Updated	
<input type="checkbox"/> Updated by	
<input type="checkbox"/> Updates	
Formatters	
<input type="checkbox"/> Activities (filtered)	
<input type="checkbox"/> Contextual Search Results	
<input type="checkbox"/> Ratings	

Number	Date
Expense	
Comments	
Member name	

## 9. Creating Relationship Between Tables

Search Relationships → click New.

Set Name: Daily Expenses, Applies to Table: Family Expenses, Related Table: Daily Expenses, then click Save.

Name: Daily\_Expenses

Application: Global

Advanced:

Applies to table: Family\_Expenses [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 ⓘ
1 (function refineQuery(current, parent) {
2
3     // Add your code here, such as current.addQuery(field, value);
4     current.addQuery('u_date',parent.u_date);
5     current.query();
6
7 })(current, parent);

```

Run Query Diagnostics | Update | Delete

## 10. Configuring Related List

Open Family Expenses → New → Configure > Related Lists → add Daily Expenses → Save.

Configuring related lists on Family\_Expenses form

Available: Attachments

Selected: Daily\_Expenses

View name: Default view

Related Links: Show versions, Related list performance diagnostics

Cancel | Save

## 11. Business Rule Creation

Navigate to All → Business Rules → New.

Name: Family Expenses BR

Table: Daily Expenses

Add query: required

```

(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
)

```

## 12. Configure Relationship

Go to All → Relationships and open Daily Expenses Relationship.  
Set Applies to table: Family Expenses.

Add Query:

```
(function refine Query (current, parent) {
    current.add Query('update', parent.u_date);
    current.query ();
}) (current, parent);
```

Query with  Turn on ECMAScript 2021 (ES12) mode 

```
(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);
```

[Run Query Diagnostics](#) [Update](#) [Delete](#)

Update the Relationships by clicking on update.

- Built in Service Now to manage family spending.
  - **Daily Expenses** table records:
    - Date, Amount, Comments, Family Member
  - **Family Expenses** table shows:
    - Total spent per date, with summary
  - Tables are **linked**:
    - Daily entries update family totals automatically
  - Helps track spending and keep financial records organized.

Daily_Expenses					Number	Search	Actions on selected rows...	New
All								
	Number	comments	Date	Expense	Family Member Name			
	DFE0001003	money	2025-10-31	500	Abraham Lincoln			
	DFE0001002	Mobile	2025-11-01	500	Abel Tuter			

Family_Expenses				Type	Action
	Number	Amount	Date	Expense Details	Actions on selected rows...
All					
<input type="checkbox"/>	MFE0001011	1,000	2025-10-31	new	
<input type="checkbox"/>	MFE0001009	500	2025-11-01	Mobile	

The screenshot shows two ServiceNow interface panels. The top panel is for the 'Family\_Expenses' module, specifically for record MFE0001009. It displays fields: Number (MFE0001009), Expense Details (Mobile), Date (2025-11-01), and Amount (500). Below this is a list view for 'Daily\_Expenses' showing one record: DFE0001002, Mobile, 2025-11-01, 500, Abel Tuter. The bottom panel shows a search results page for 'Daily\_Expenses' with the same single record listed.

Number	comments	Date	Expense	Family Member Name
DFE0001002	Mobile	2025-11-01	500	Abel Tuter

## Conclusion:

In conclusion, the *Family Expenses Calculation System* built on Service Now provides an efficient and organized way to manage household finances. By leveraging Service Now automation and data management capabilities, the system simplifies expense tracking, ensures accuracy, and offers real-time insights into family spending patterns. This project not only enhances financial transparency but also promotes better budgeting and informed decision-making—ultimately contributing to improved financial stability and well-being for families.

Done By,

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**Thank You!**