

## **Calculating Family Expenses**

**Team ID : NM2025TMID01557**

**Team Size : 4**

**Team Leader : Arushki.k**

**Team member : Aravinth.M**

**Team member : Bharathwaj.v**

**Team member : Keerthika.k**

## **What is ServiceNow?**

**ServiceNow is the AI Platform for Business Transformation—and it all begins with workflows. We are a single platform that brings together any AI, any data, and any workflow, so you can completely transform how people work across every corner of your business. IT problems vanish before they appear. Operational systems alert and fix before a failure even happens. Customers receive answers before frustration sets in. Field service arrives on-time, informed, and ready. And your people? They spend less time mired in busywork and more time doing what they were actually hired to do. That's how you put AI to work for people**

# Calculating Family Expenses

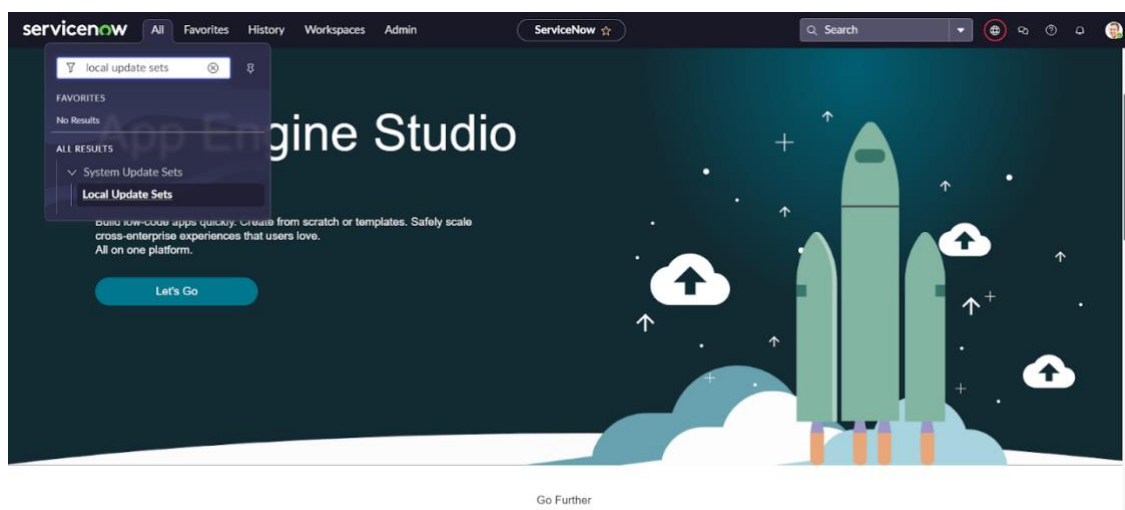
The project aims to develop a comprehensive expense calculation system using ServiceNow. This system will enable users to track and manage family expenses efficiently. It will include features such as expense categorization, budget setting, real-time tracking, and reporting capabilities. Utilizing ServiceNow's 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.

## 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.

## 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:

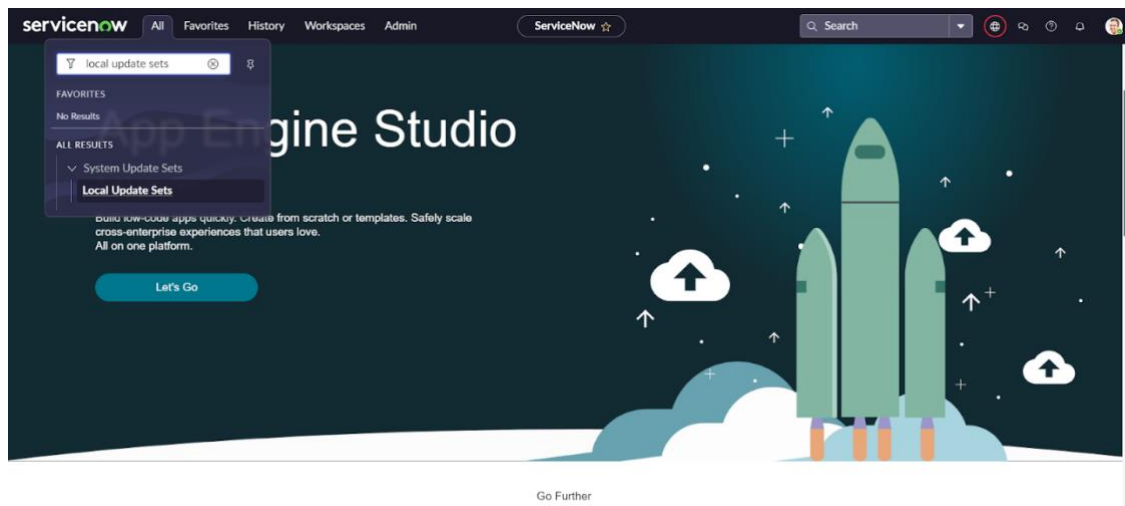
Name : Family Expenses

3. Then click on Submit and Make current.

The screenshot shows the ServiceNow interface for creating a new update set. The left sidebar contains a navigation menu with 'Local Update Sets' highlighted. The main form has the following fields: 'Name' (Family Expenses), 'State' (In progress), 'Parent' (empty), 'Release date' (empty), and 'Description' (empty). The 'Submit and Make Current' button is highlighted in red.

## Creation of New Update Set

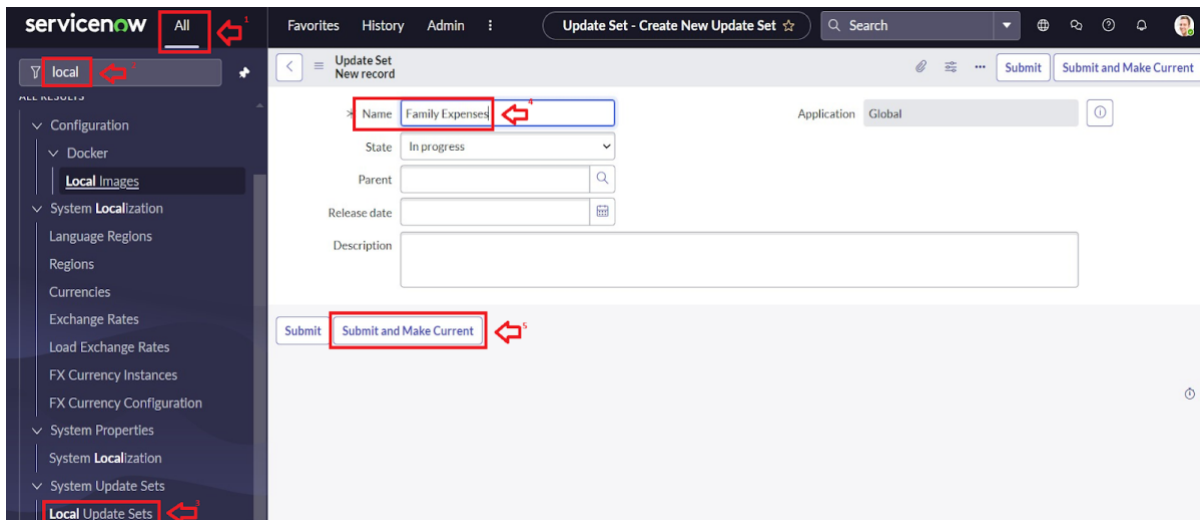
1. Go to All >> In the filter search for Local Update set > click on New.



2. Enter the Details as:

Name : Family Expenses

3. Then click on Submit and Make current.



## Creation of Family Expenses Table

1. Go to All > In the filter search for Tables > click on New.
2. Enter the Details:

Label : Family Expenses

Name : Auto-Populated

New menu name : Family Expenditure

Column label	Type	Reference	Max length	Default value	Display
Number	String				false
Date	Date				false
Amount	Integer				false

3. Go to the Header and right click there>> click on Save.

## Creation of Columns(Fields)

1. Near Columns Double click near insert a new row.

2. Give the details as:

Column label : Number

Type : String

3. Double click on insert a new row again
4. Give the details as:

Column label : Date

Type : Date

5. Double click on insert a new row again
6. Give the details as:

Column label : Amount

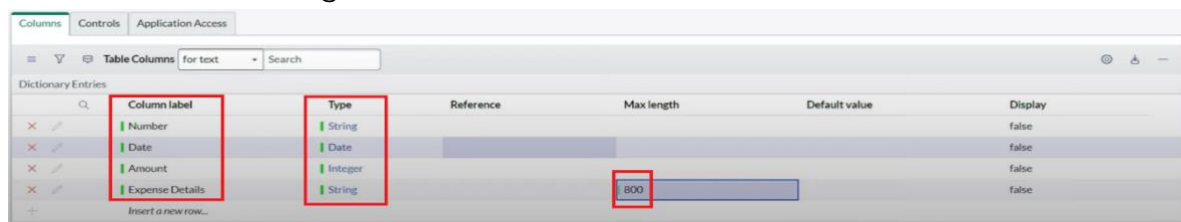
Type : Integer

7. Double click on insert a new row again
8. Give the details as:

Column label : Expense Details

Type : String

Max length : 800



9. Go to the Header and right click there>> click on Save.

## Making Number Field an Auto-Number

1. Double click on the Number Field/Column.
2. Go down and double click on Advanced view
3. In Default Value:

Use dynamic default : check the box

Dynamic default value : Get Next Padded Number

4. Click on Update.

- 5.
6. Go to All >> In the filter search for Number Maintenance >> select Number Maintenance
7. Click on New.
8. Enter the below Details:

Table : Family Expenses  
Prefix : MFE

9. Click on Submit.

## 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
4. Customize or Drag Drop the form as per your requirement.

The screenshot shows two sections of a form editor. The first section, titled 'Family Expenses [u\_family\_expenses]', contains three fields: 'Number', 'Date', and 'Amount'. Each field has a gear icon for configuration. The second section, titled 'Expense Details', is currently empty.

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.

## 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

The screenshot shows the 'Details' section of the form editor. The 'Label' field is 'Daily Expenses' (marked with a red box and a red arrow labeled '1'). The 'Name' field is 'u\_daily\_expenses' (marked with a red box and a red arrow labeled '2'). The 'Extends table' field is empty. On the right, the 'Application' is 'Global'. The 'Create module' and 'Create mobile module' checkboxes are checked. The 'Add module to menu' dropdown is set to 'Family Expenditure' (marked with a red box and a red arrow labeled '3').

3. Go to the Header and right click there>> click on Save.

## Creation of Columns(Fields)

1. Near Columns Double click near insert a new row.
2. Give the details as:



Column label : Number

Type : String

3. Double click on insert a new row again
4. Give the details as:

Column label : Date

Type : Date

5. Double click on insert a new row again
6. Give the details as:

Column label : Expense

Type : Integer

7. Double click on insert a new row again
8. Give the details as:

Column label : Family Member Name

Type : Reference

Max length : 800

9. Double click on insert a new row again
10. Give the details as:

Column label : Comments

Type : String

Max length : 800

11. Go to the Header and right click there>> click on Save.

## Making Number Field an Auto-Number

1. Double click on the Number Field/Column.
2. Go down and double click on Advanced view
3. In Default Value:

Use dynamic default : check the box

Dynamic default value : Get Next Padded Number

4. Click on Update.

- 5.
6. Go to All >> In the filter search for Number Maintenance >> select Number Maintenance
7. Click on New.
8. Enter the below Details:

Table : Family Expenses

Prefix : MFE

9. Click on Submit.

## Configure the Form

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

The image shows two screenshots of a table configuration tool. The top screenshot is for a table named 'Daily Expenses [u\_daily\_expenses]' with 2 columns. It displays four fields: 'Number', 'Date', 'Family Member Name', and 'Expense'. Each field has a gear icon next to it, indicating configuration options. The bottom screenshot is for a table with 1 column and displays a single field: 'Comments'. It also has a gear icon next to it.

5. Make Number Read-Only Field by clicking on the gear icon and checking Read-Only
6. Make Date, Family Member Name Mandatory Field by clicking on the gear icon and checking Mandatory
7. Click on Save.

## Creation of Relationship between Family

### Expenses and Daily Expenses tables

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.

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



## 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

Business Rule  
New record

ss 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

Name	Family Expenses BR	← <sup>1</sup>
Table	Daily Expenses [u.daily_expenses]	← <sup>2</sup>

Application Global ⓘ

Active ☒

Advanced ☒ ←<sup>3</sup>

4. In when to run Check Insert and Update

When to run **When to run** Advanced

Specify whether the business rule should run on **Insert** or **Update**. Use **Filter Conditions** to specify under which conditions the rule should run.

When: before

Order: 100

Filter Conditions: [Add Filter Condition](#) [Add "OR" Clause](#)

-- choose field -- -- oper -- -- value --

Role conditions: [Edit](#)

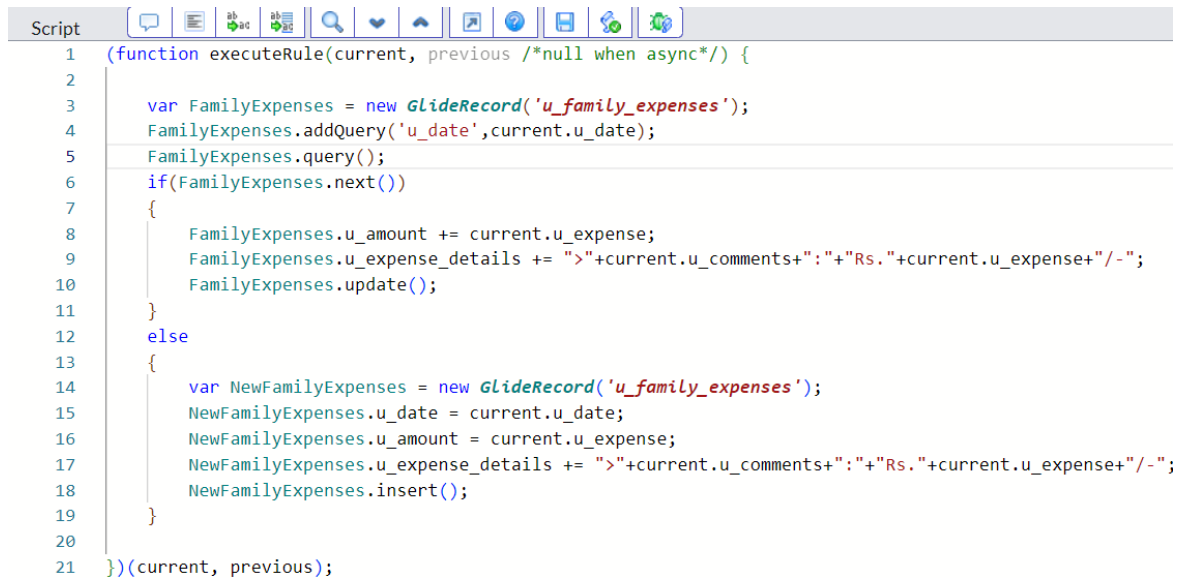
Insert ☒ Update ☒ Delete ☐ Query ☐

5. 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);
```



```

1  (function executeRule(current, previous /*null when async*/) {
2
3      var FamilyExpenses = new GlideRecord('u_family_expenses');
4      FamilyExpenses.addQuery('u_date', current.u_date);
5      FamilyExpenses.query();
6      if(FamilyExpenses.next())
7      {
8          FamilyExpenses.u_amount += current.u_expense;
9          FamilyExpenses.u_expense_details += ">" + current.u_comments + ":" + "Rs." + current.u_expense + "/-";
10         FamilyExpenses.update();
11     }
12     else
13     {
14         var NewFamilyExpenses = new GlideRecord('u_family_expenses');
15         NewFamilyExpenses.u_date = current.u_date;
16         NewFamilyExpenses.u_amount = current.u_expense;
17         NewFamilyExpenses.u_expense_details += ">" + current.u_comments + ":" + "Rs." + current.u_expense + "/-";
18         NewFamilyExpenses.insert();
19     }
20
21     })(current, previous);

```

6. Go to the Header and right click there>> click on Save.

## Configure the Relationship

1. Go to All >> In the filter search for Relationships >> Open Relationships.
2. In that, open Daily Expenses Relationship.
3. For Applies to table : Select Family Expenses.
4. 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);

```

5. Click on Update.

Relationship  
Daily Expenses

UpdateDelete

NameDaily Expenses

ApplicationGlobal

Advanced☐

Applies to tableFamily Expenses [u\_family\_expenses]

Queries from tableDaily 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

```
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);
```

UpdateDelete

## Conclusion:

In conclusion, managing family expenses is essential for maintaining financial stability and achieving long-term goals. By tracking income and expenditures, setting budgets, and prioritizing needs over wants, families can make better financial decisions. Proper expense management helps reduce unnecessary spending, avoid debt, and build savings for future needs such as education, healthcare, and emergencies. Ultimately, effective control of family expenses ensures a secure, balanced, and stress-free financial life for all family members.