

CALCULATING FAMILY EXPENSES USING SERVICE NOW

TeamId:NM2025TMID13565

TeamMembers:4

TeamLeader: MURALIDHARAN K

TeamMember 1: MANIKANDAN S

TeamMember 2: KISHORE P

TeamMember 3: KALAIYARASAN M

ProblemStatement: 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

Objective: The objective of this project is to design and implement a dynamic expense management system on the ServiceNow platform that empowers families to monitor, categorize, and control their financial activities with precision and ease

Skills: ServiceNow App Development ,Report and dashboard creation

TASK INITIATION

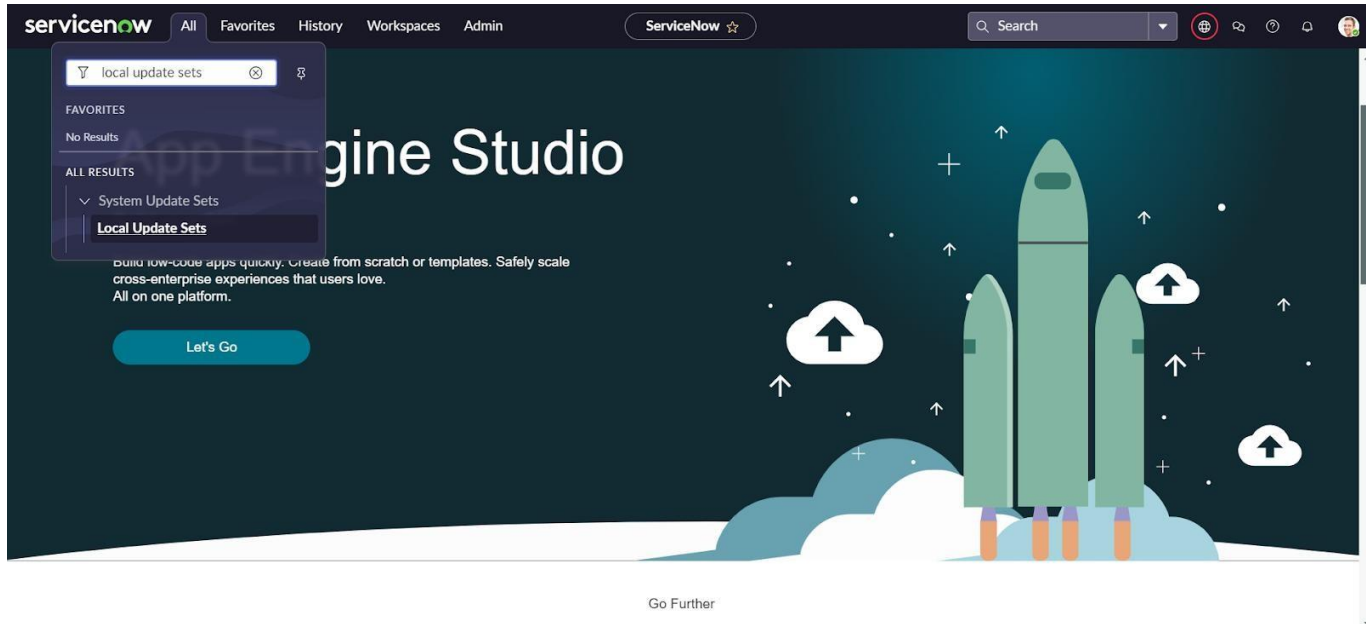
Setting up ServiceNow Instance

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.

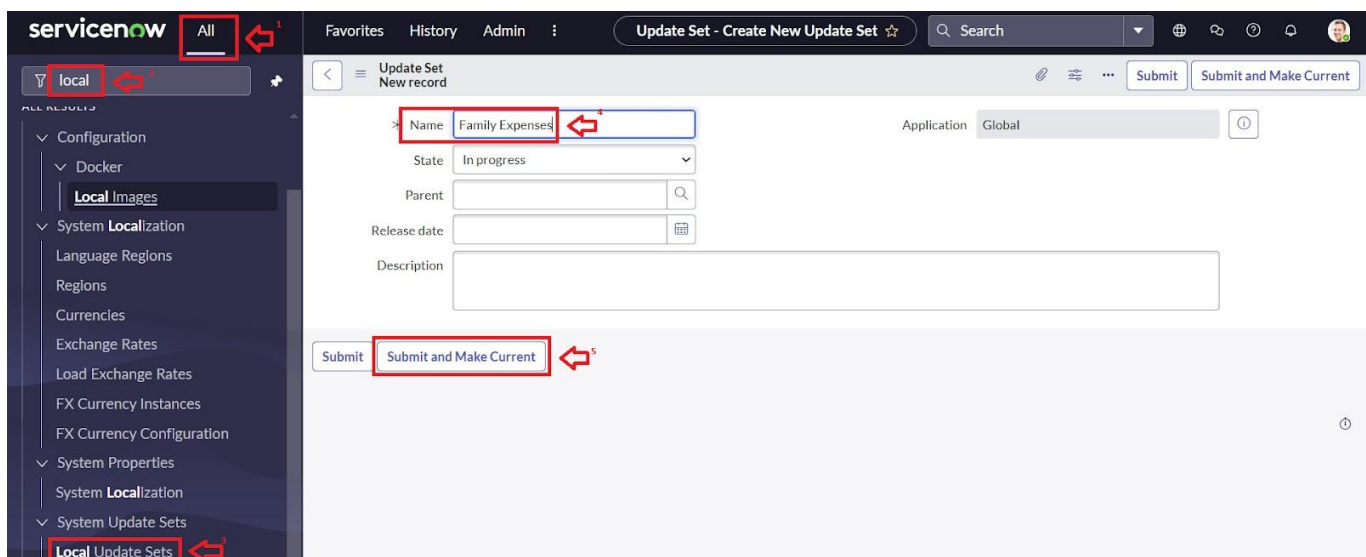
5. You'll receive an email with the instance details once it's ready.
6. Log in to your ServiceNow instance using the provided credentials.
7. Now you will navigate to the ServiceNow.

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.



Creation of Table

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

* Label

Family Expenses

* Name

u_st_family_expenses

Application

Global

ⓘ

Remote Table

☒

Create module

☒

Create mobile module

☒

Add module to menu

-- Create new --

⌵

New menu name

Family Expenditure

Columns

Controls





Application Access

Table Columns

Column label ▾

Search

Dictionary Entries

	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



	Column label	Type	Reference	Max length	Default value	Display
X	Number	String				false
X	Date	Date				false
X	Amount	Integer				false
X	Expense Details	String		800		false

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.



Choice List Specification Calculated Value **Default Value**

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

Use dynamic default ☒

Dynamic default value Get Next Padded Number

Delete Column **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



< Number Maintenance ... **Update** **Delete**

* Table Family Expenses

Prefix MFE

* Number 1,000

Application Global

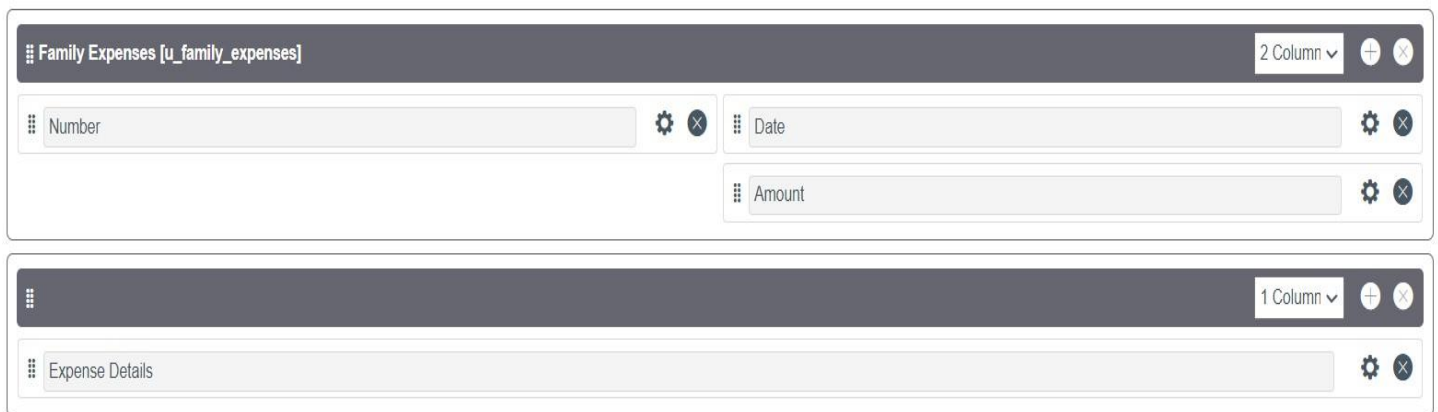
Number of digits 7

Update **Delete**

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.



Family Expenses [u_family_expenses] 2 Column

Number Date Amount

Expense Details 1 Column

- 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 Table(Daily Expenses)

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)

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.



Choice List Specification Calculated Value **Default Value**

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

Use dynamic default ☒

Dynamic default value Get Next Padded Number 🔍 ⓘ

Delete Column **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

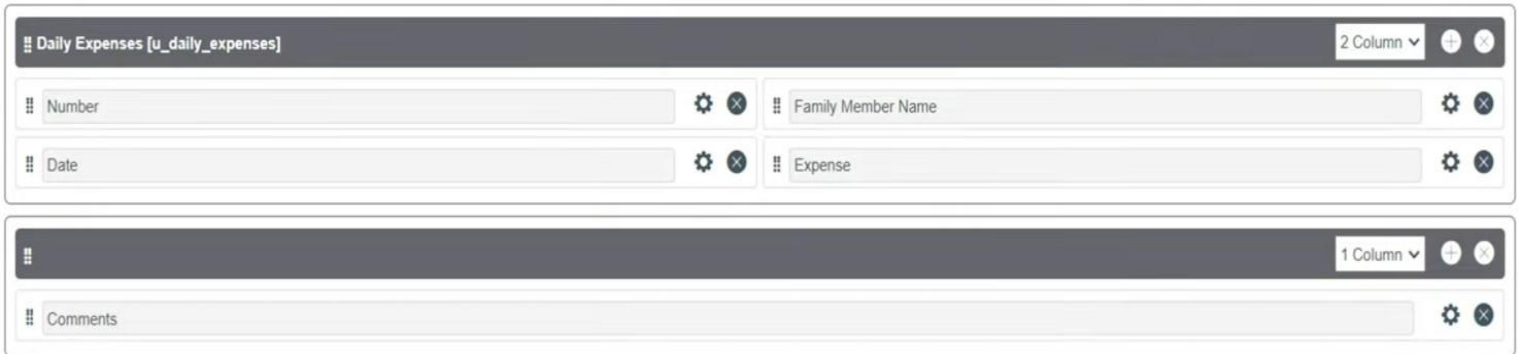
Prefix : MFE



8.Click on Submit.

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.



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

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

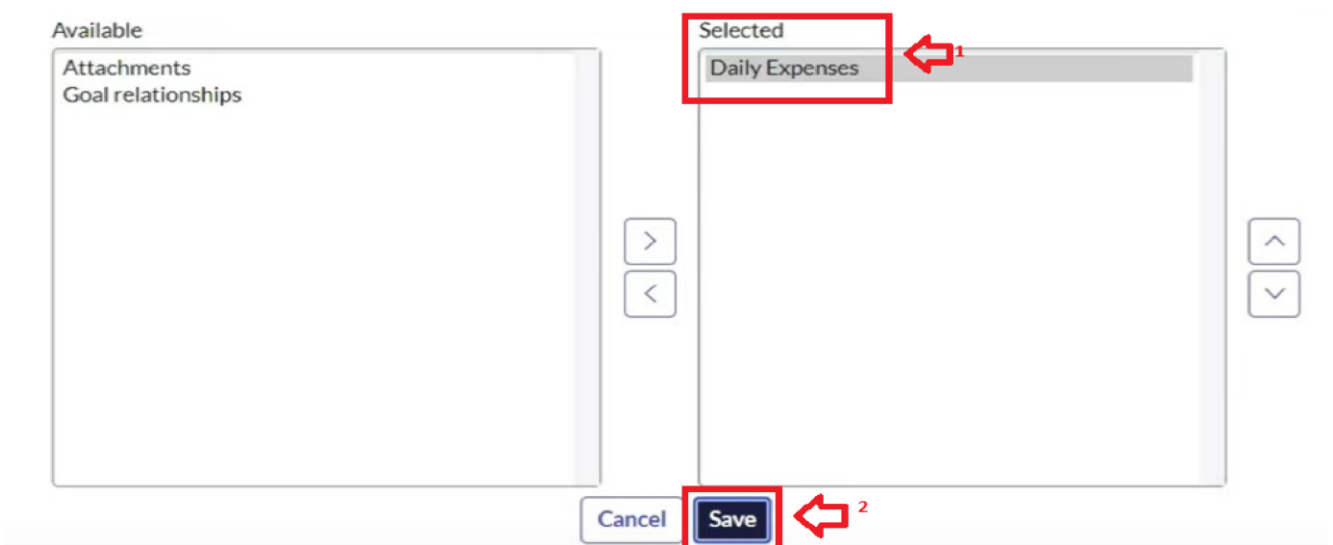
Daily Expenses : Select Daily Expenses

4. Click Save.

Configuring Related List on Family Expenses

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



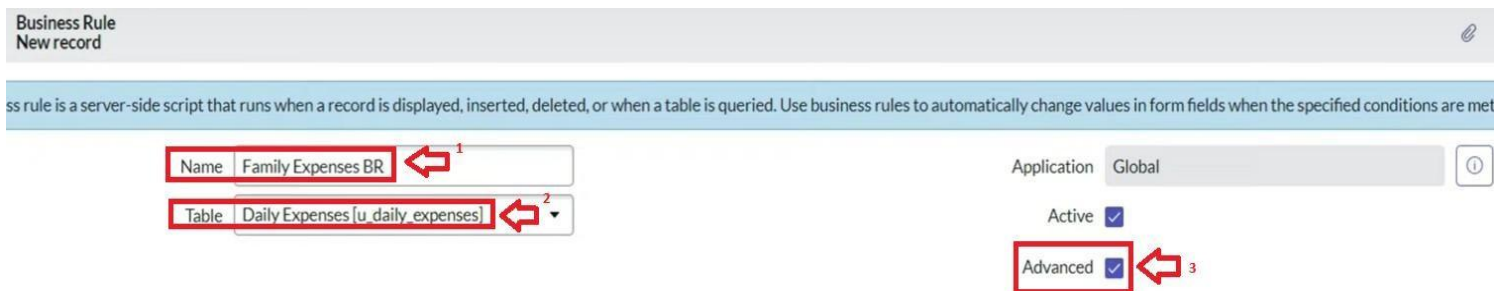
Creation of Business Rules

- 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

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.

Name: Family Expenses BR 1

Table: Daily Expenses [u_daily_expenses] 2

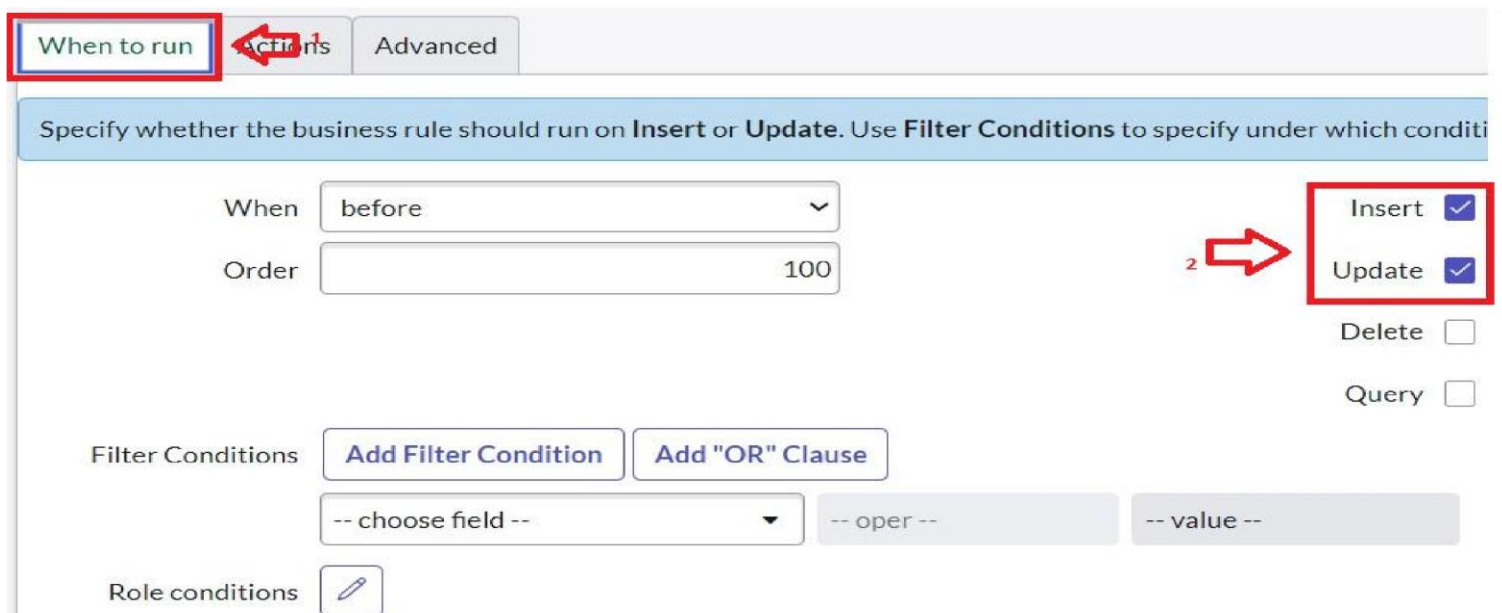
Application: Global 3

Active: ☒

Advanced: ☒ 3

4.In when to run Check Insert and Update

5.In Advance(we write the code): Write the below code >>



When to run 1

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

When: before

Order: 100

Insert: ☒ 2

Update: ☒ 2

Delete: ☐

Query: ☐

Filter Conditions: Add Filter Condition Add "OR" Clause

-- choose field --

-- oper --

-- value --

Role conditions:

```
(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);
```

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.

Script

```

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);

```

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
Update
Delete

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

```

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);

```

Update
Delete

Conclusion:

This project is more than just an expense tracker—it's a step toward transforming how families engage with their financial lives. By leveraging ServiceNow's powerful capabilities, we're building a smart, scalable, and intuitive system that adapts to the unique needs of every household. From real-time insights to personalized budgeting tools, the platform empowers users to take control of their finances with confidence and clarity. Ultimately, this solution fosters financial transparency, strengthens family collaboration, and promotes long-term financial well-being—turning everyday expense management into a strategic advantage for the modern family.