Calculating Family Expenses Using ServiceNow

Team Id: NM2025TMID13176

Team Members:4

Team Leader : Dishwa.P

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Problem Statement:

Families often struggle to track and manage their monthly expenses due to scattered data sources, manual record-keeping, and lack of real-time insights. This leads to overspending, missed savings opportunities, and financial stress. There is a need for a centralized, automated, and user-friendly system to monitor, categorize, and analyze family expenses.

Objective:

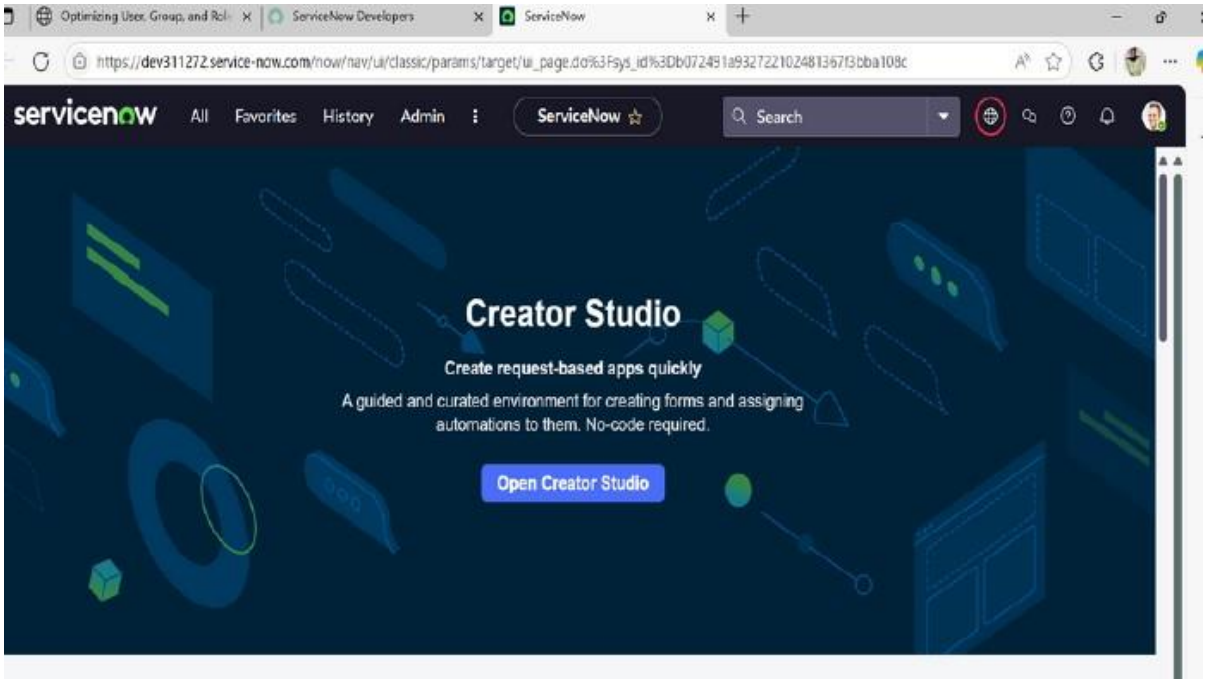
1. Centralize ExpenseTracking**:**Create a single platform to logallfamilyexpenses.
2. Automate Categorization**:** Use workflows to automatically classify expenses (e.g., groceries, utilities, education).
3. Enable Real-Time Reporting**:** Provide dashboards and reports for monthly, quarterly, and yearlyexpense summaries.
4. SetBudgetThresholds:Alertuserswhenspendingexceedspredefinedlimits.
5. ImproveFinancialAwareness:Helpfamiliesmakeinformeddecisionsthroughdata-driveninsights.

TASK INITIATION

Milestone 1 : Setting up ServiceNow Instance

Activity : Setting up ServiceNow Instance

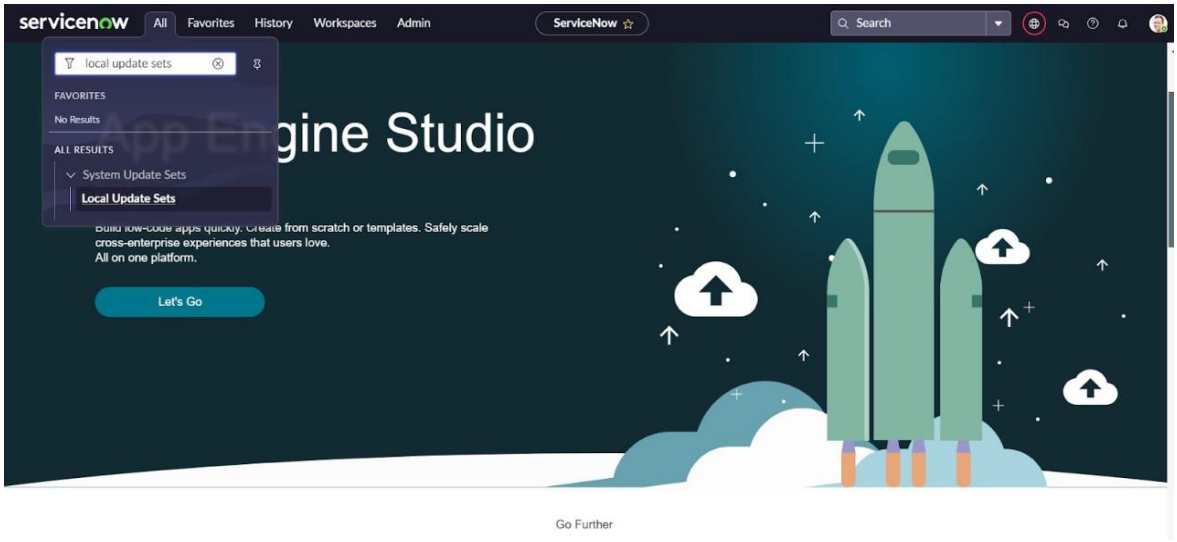
1. Sign up for a developer account on the ServiceNow Developer site “https://developer.servicenow.com”.
2. Once logged in, navigate to the "Personal Developer Instance" section.
3. Click on "Request Instance" to create a new ServiceNow instance.
4. Fill out the required information and submit the request.
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.



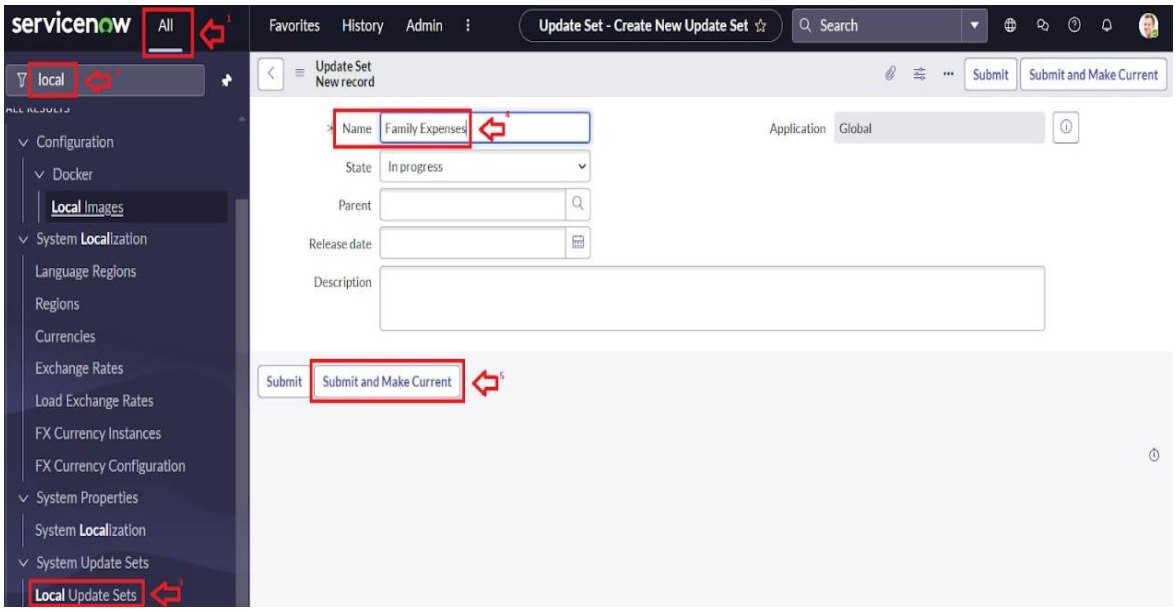
Milestone 2 : Creation of New Update Set

Activity 1: Creation of New Update Set

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



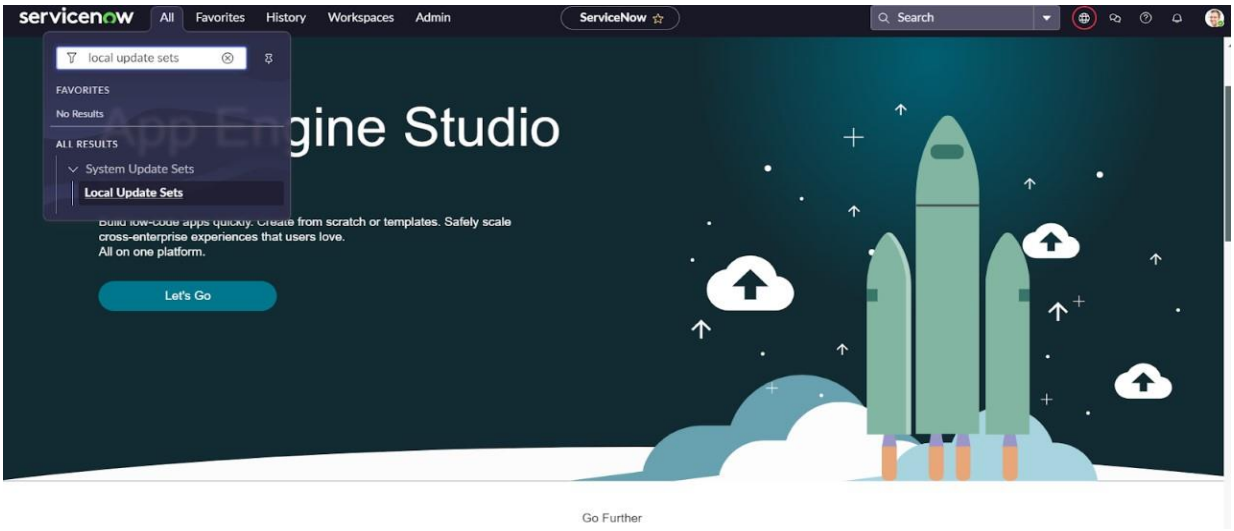
2. Enter the Details as:
   Name : Family Expenses
3. Then click on Submit and Make current.



Milestone 3 : Creation of Table

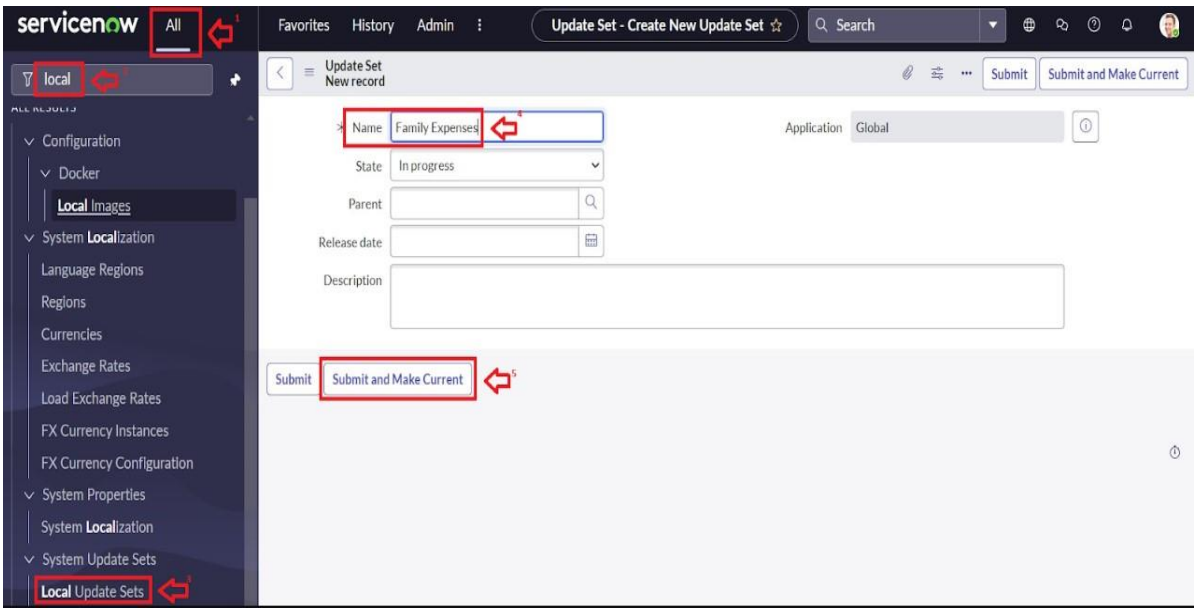
Activity : Creation of New Update Set

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



2. Enter the Details as:
Name : Family Expenses

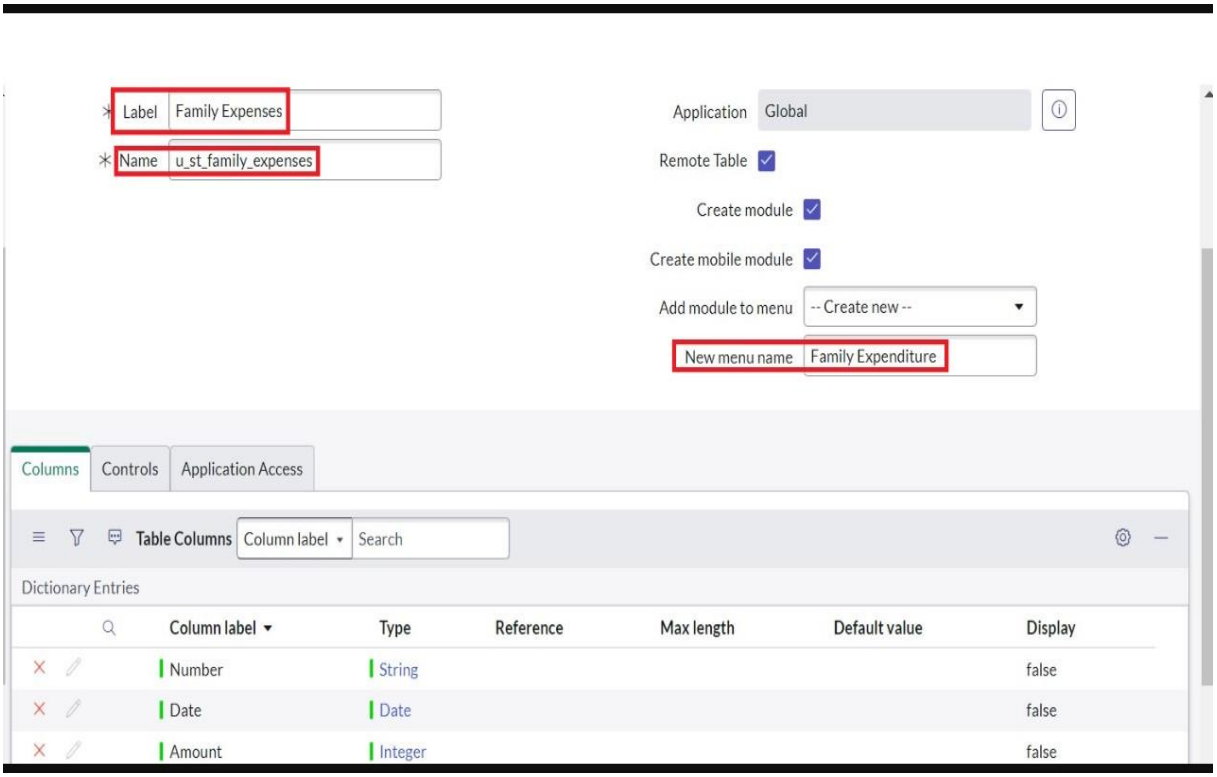
3. Then click on Submit and Make current.



Milestone 4 : Creation of Table

Activity 1: 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



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

Activity 2: 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.

Activity 3: 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.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.

Activity 4: 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.

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 5 : Creation of Table(Daily Expenses)

Activity 1 : 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.

Activity 2: 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.

Activity 3: **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.

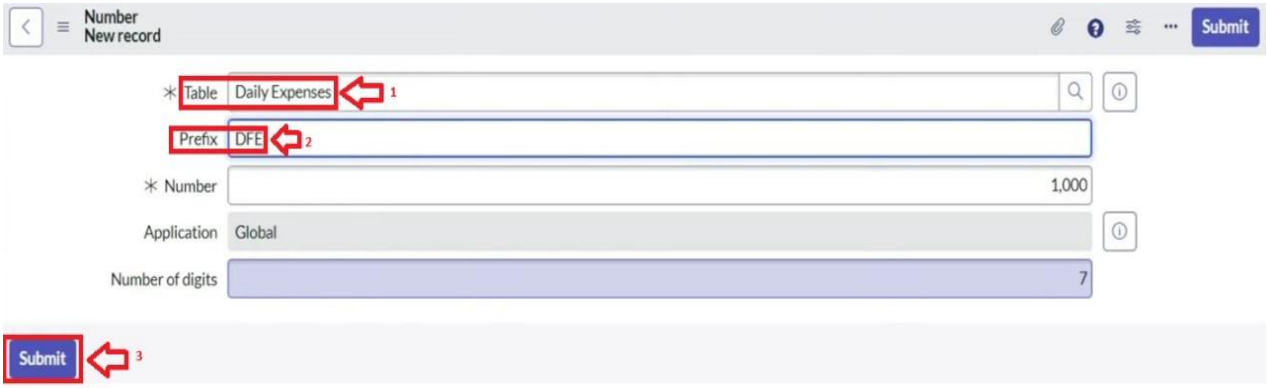
5.Go to All >> In the filter search for Number Maintenance >> select Number Maintenance

6. Click on New.

7.Enter the below Details:

Table : Family Expenses

Prefix : MFE



8.Click on Submit.

Activity 4: 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.

Milestone 6 : Creation of Relationship

Activity : 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.

Milestone 7 : Configuring Related List on Family Expenses

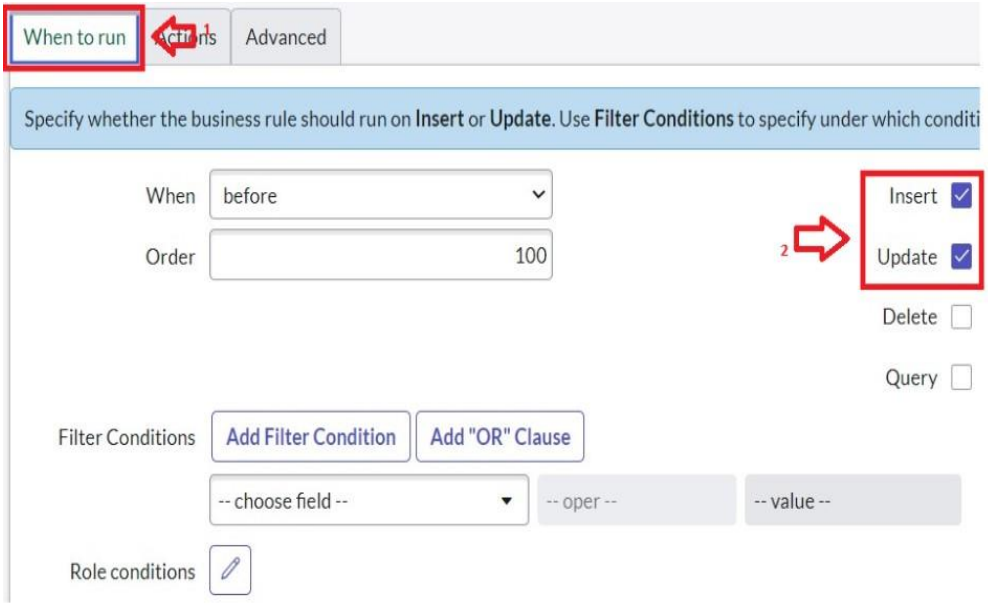
Activity : Configuring Related List on Family Expenses

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

Milestone 8 : Creation of Business Rules

Activity : 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



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);
```

Script

```
(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.

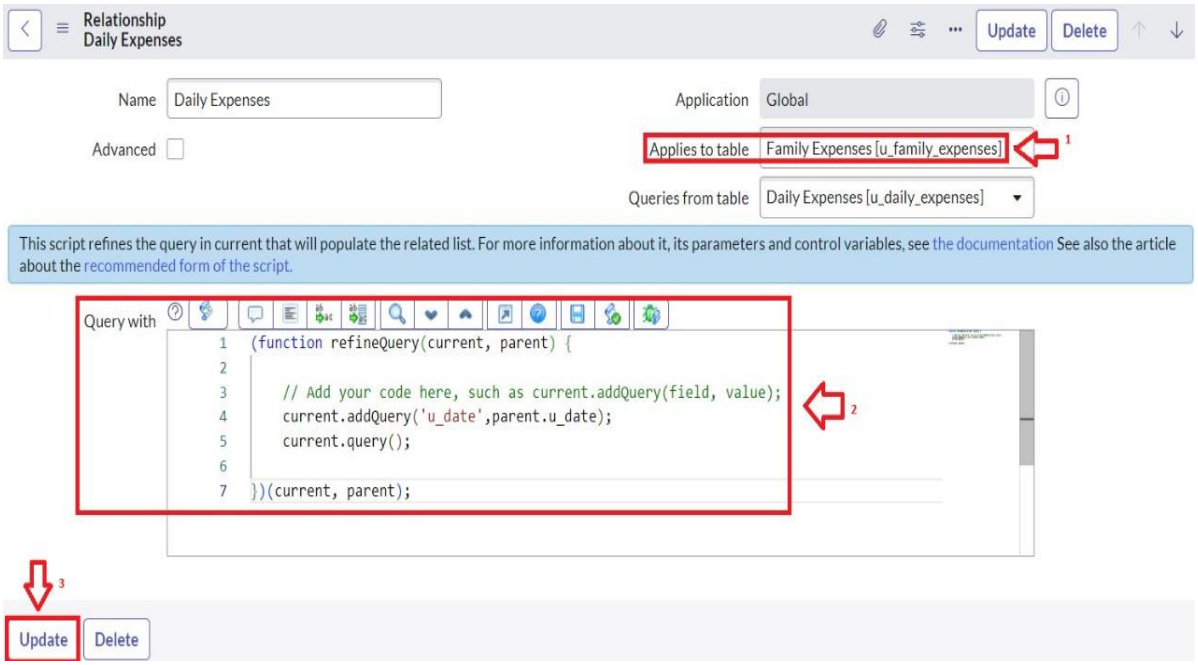
Milestone 9 :Configure the Relationship

Activity : 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.



Conclusion

The project “Calculating Family Expenses Using ServiceNow”successfully demonstrates how a powerful ITSM platform like ServiceNow can be adapted beyond traditional IT workflows to manage and track personal or household financial data. By leveraging features such as custom tables, relationships, and business rules, we created a structured and automated system to record, relate, and monitor daily expenses under a centralized Family Expenses module.

This approach not only improves data visibility and accuracy but also enables real-time tracking, reporting, and scalability for future enhancements like notifications, dashboards, or integrations with externalfinancialtools.Overall,thisprojecthighlightstheflexibilityof ServiceNowinsolvingreal-world problems beyond enterprise IT, making it a valuable tool for both professional and personal process automation.