CALCULATING FAMILY EXPENSES USING SERVICENOW

TEAM ID : NM2025TMID14334

TEAM MEMBERS: 4

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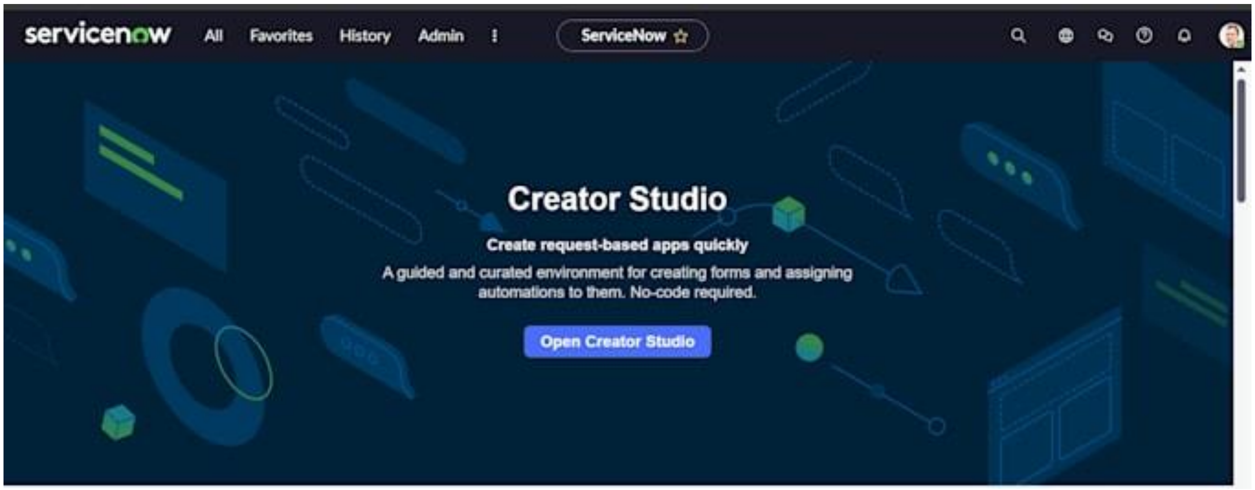
PROBLEM STATEMENT: Individuals and families lack an efficient, centralized system to track, categorize, and analyze their personal expenses, leading to difficulties in budgeting, managing spending, and making informed financial decisions.

OBJECTIVE: To leverage the ServiceNow platform to develop an automated and intuitive family expense management system that provides real-time financial tracking, personalized budget alerts, and insightful reporting to empower users with better control over their finances.

SKILLS: ServiceNow Platform Development , Data Management , Financial Management , User Interface (UI) & User Experience (UX).

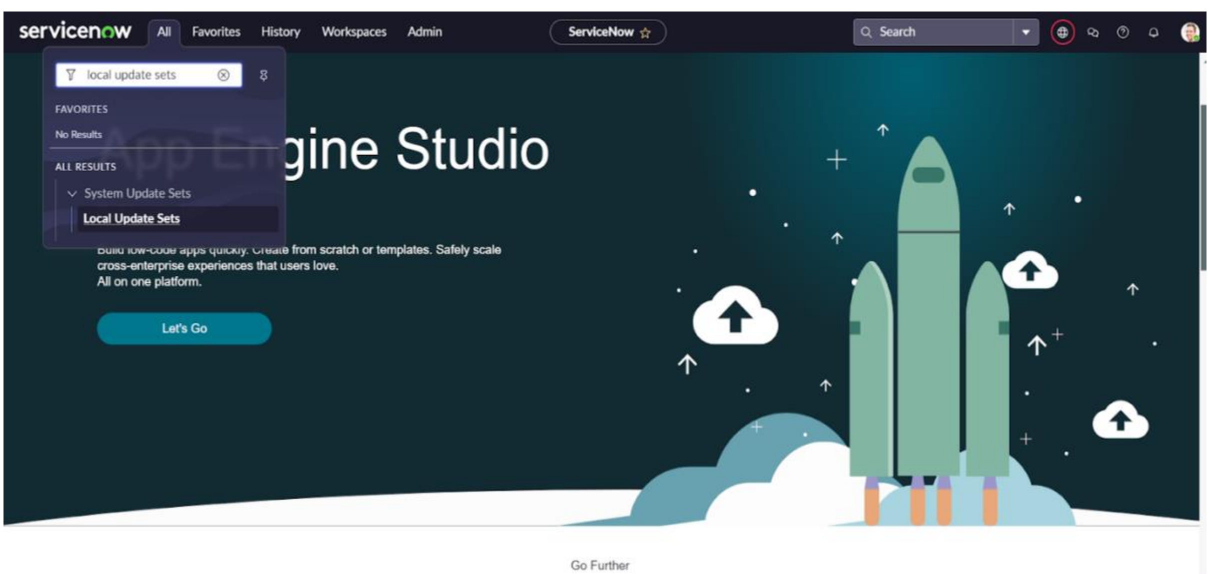
Milestone 1: Setting up ServiceNow Instance

1. Open service now Developer site “https://developer.servicenow.com”.
2. Sign up for your developer account
3. Once logged in, click on “start building”.
4. Then click on "Request Instance" to create a new ServiceNow instance.
5. It take few minutes to build your instance
6. Once instance created, 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

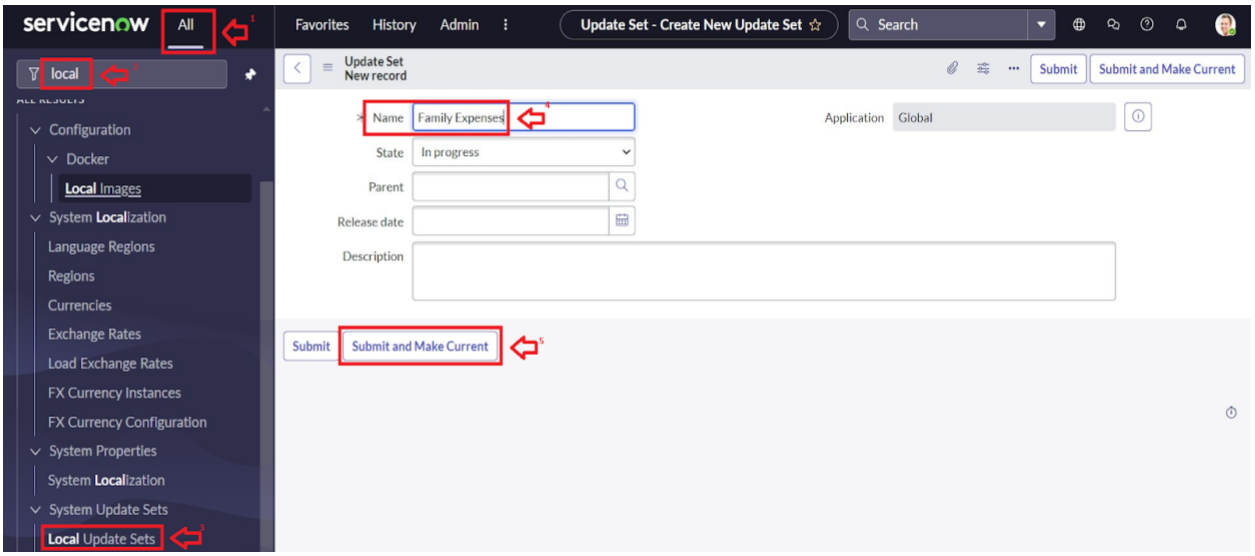
1. Go to All >> In the filter search for Local Update set > click on New.



2. Enter the Details as:

   Name : Family Expenses

3. Then click on Submit and Make current.



Milestone 3: Creation of Table

Activity 1: Creation of Family Expenses Table

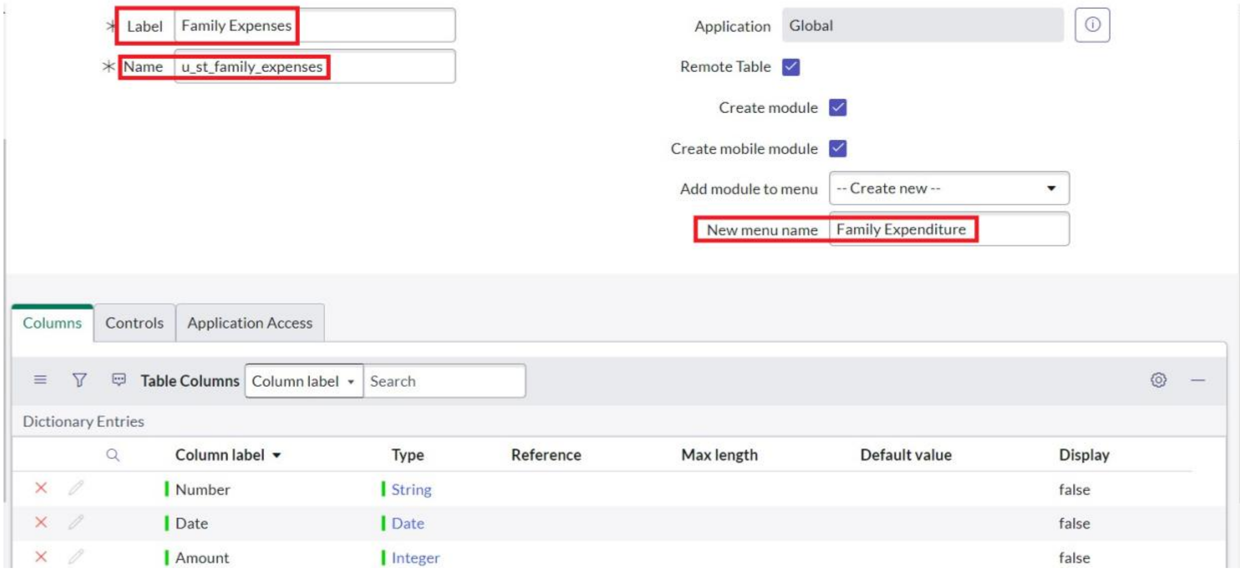
1. Go to All > In the filter search for Tables > click on New.

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

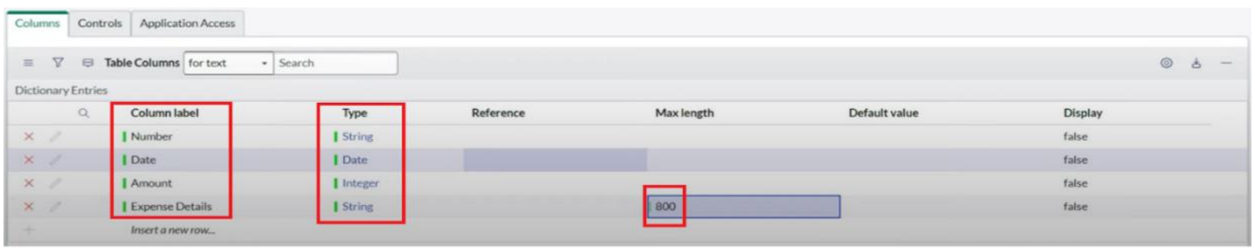
3. Double click on insert a new row again
4. Give the details as:

   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:

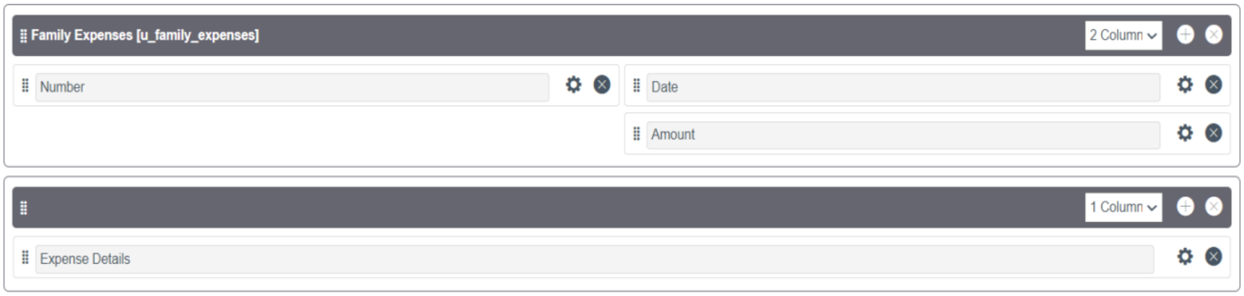
   Table : Family Expenses

   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 4: Creation of Table(Daily Expenses)

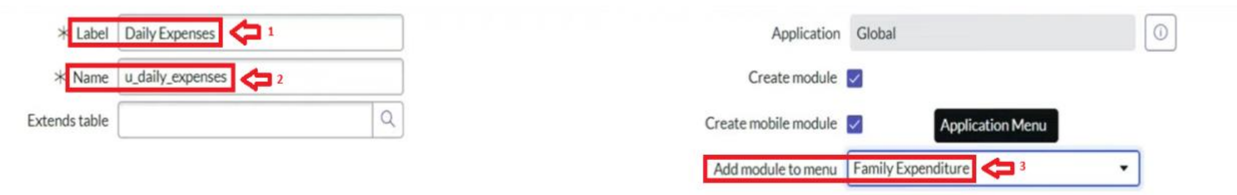
Activity 1: Creation of Daily Expenses Table

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

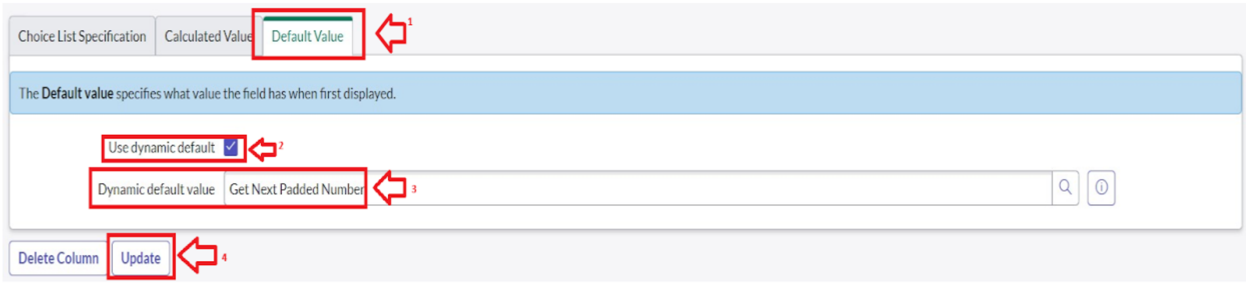
Activity 3: Making Number Field an Auto-Number

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.

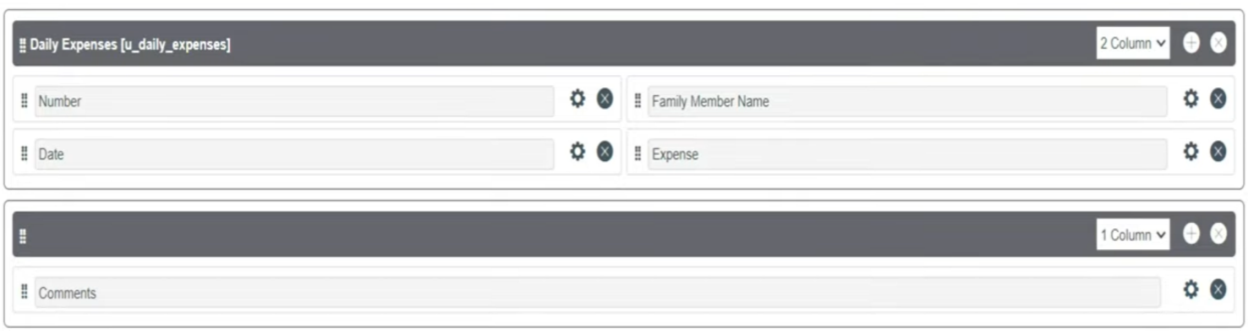


5. Go to All >> In the filter search for Number Maintenance >> select Number Maintenance
6. Click on New.
7. Enter the below Details:
   Table : Family Expenses
   Prefix : MFE

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 5: Creation of Relationship

Activity 1: 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

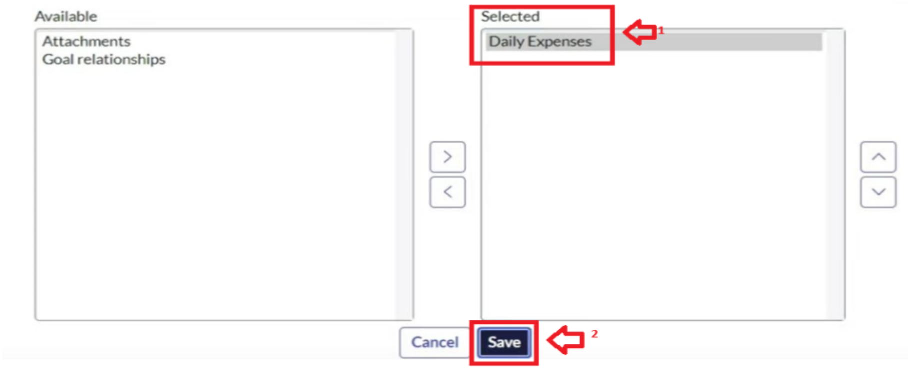
   Applies to table : Select Family Expenses

   Daily Expenses : Select Daily Expenses
4. Click Save.

Milestone 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
4. Add Daily Expenses to the Selected Area.

5. Click on Save



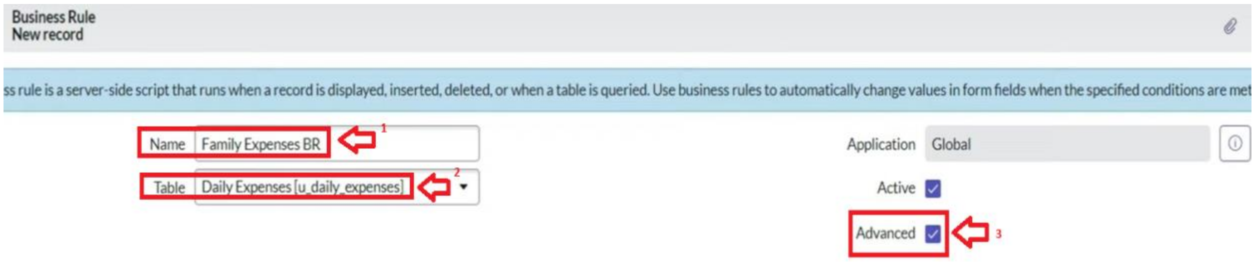
Milestone 7: Creation of Business Rules

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:

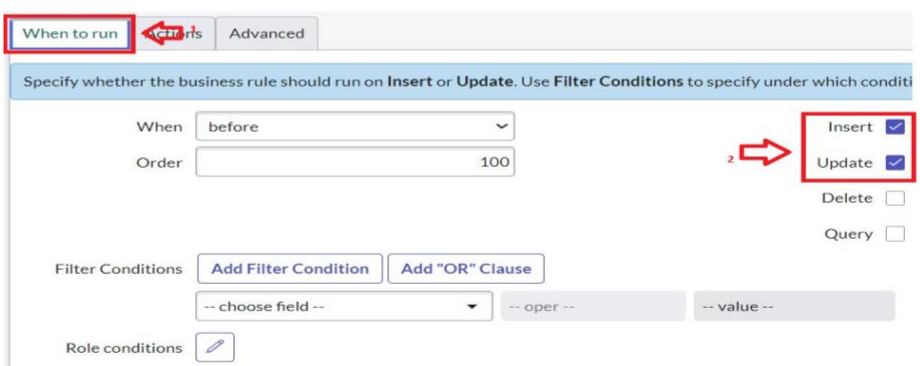
   Name : Family Expenses BR

   Table : Select Daily Expenses

   Check Advanced



4. In when to run Check Insert and Update



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

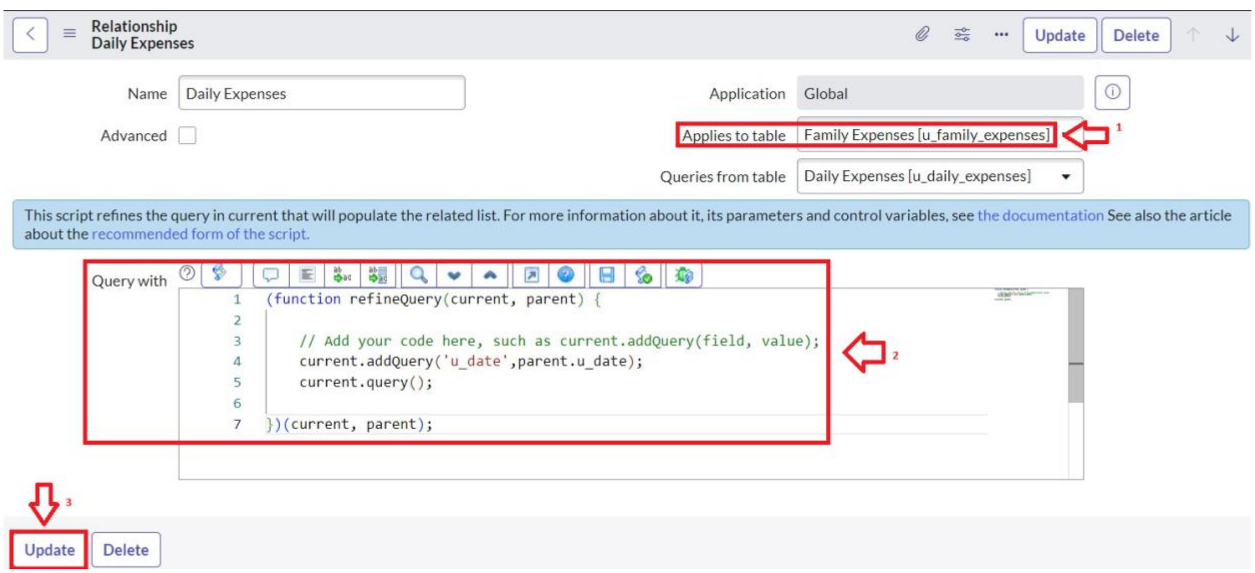
```
(function executeRule(current, previous /*null when async*/) {

    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 8: 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:

By developing a family expense tracking application on the ServiceNow platform, users can move from manual, fragmented financial management to an integrated, automated, and insightful system. This solution provides an intuitive user experience and empowers individuals to gain better control over their finances, track their spending effectively, and achieve their budgeting goals, ultimately leading to improved financial literacy and stability.