

# **Calculating Family Expenses Using Servicenow**

**Team ID: NM2025TMID17163**

**Team Members : 4**

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## **Problem Statement :**

Managing family expenses manually often leads to errors, difficulty in tracking spending habits, and lack of consolidated reporting. There is a need for a system that records daily expenses, links them to family members, and generates insights.

## **Objectives :**

- **To create a ServiceNow application for managing family expenses.**
- **To design custom tables for Family Members and Daily Expenses.**
- **To build relationships so each expense can be mapped to a family member.**
- **To configure related lists for better visibility of data.**
- **To create business rules for automation and va**

## **Skills Required:**

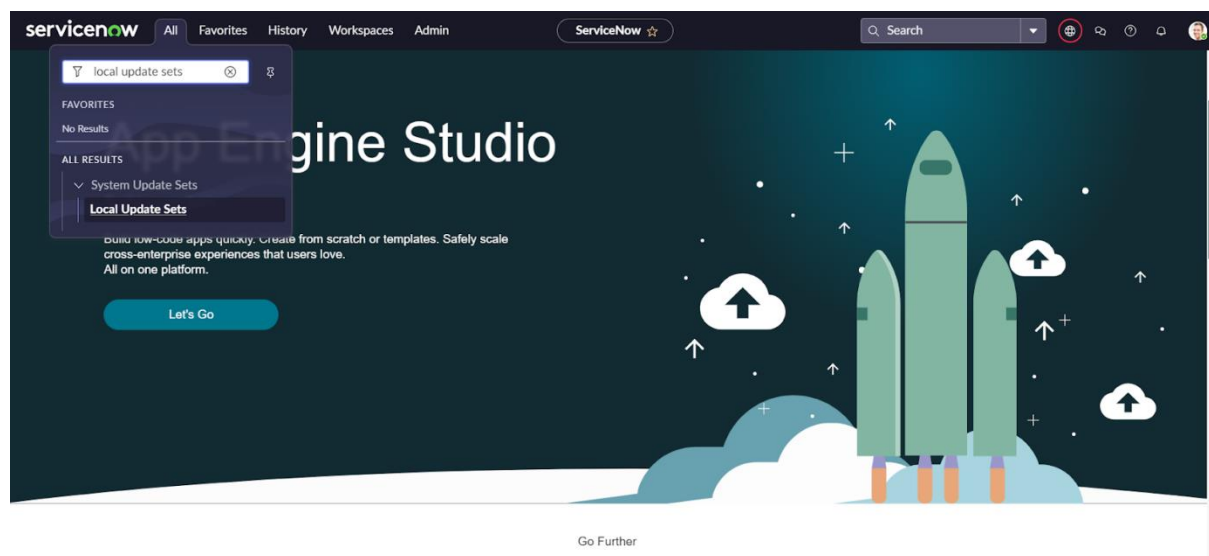
- **ServiceNow Instance Setup**
- **Update Sets Management**

- **Table Creation & Relationships**
- **Business Rules Configuration**
- **Related List Setup**
- **Data Validation & Reporting**

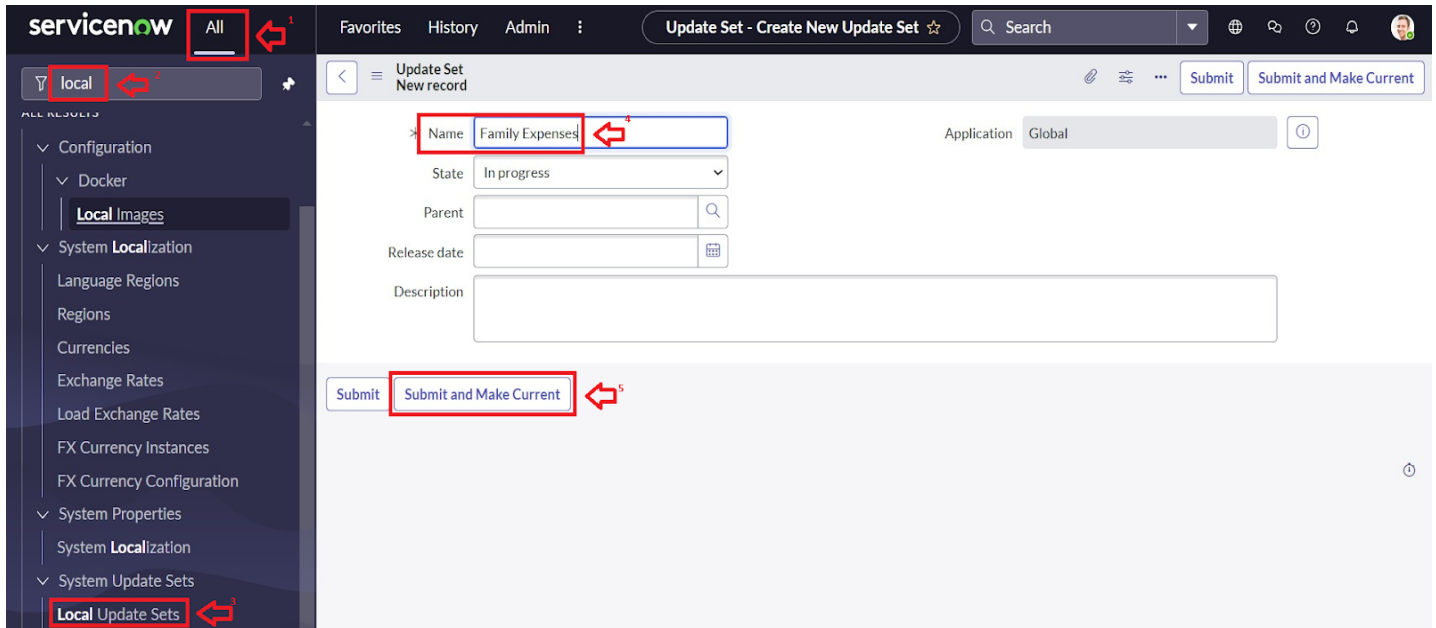
## TASK INITIATION

### Milestone 1: Creation of New Update Set

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

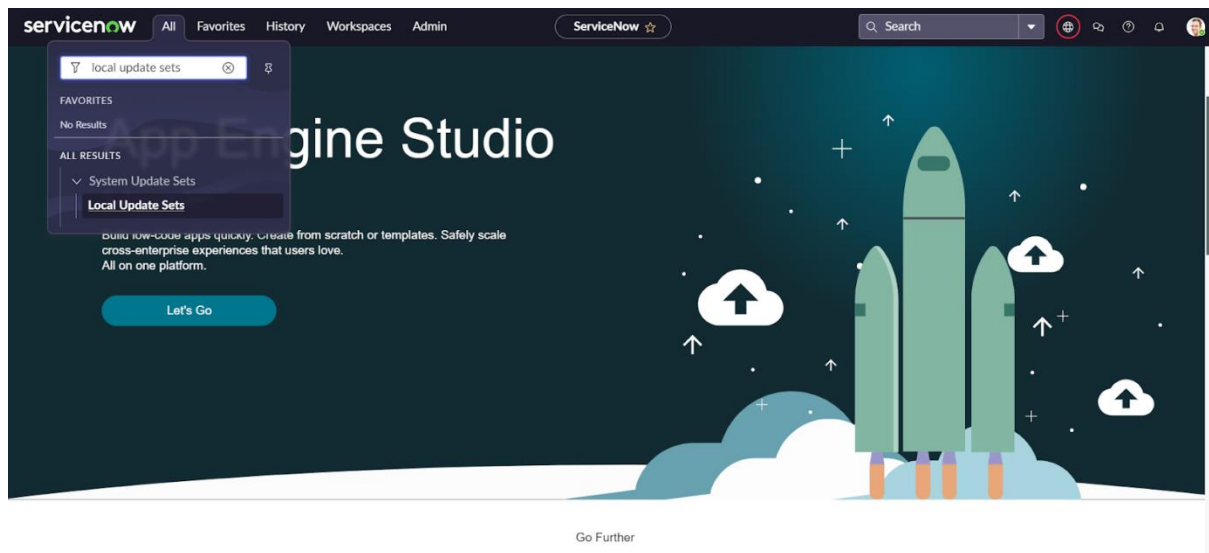


2. Enter the Details as:  
Name : Family Expenses
3. Then click on Submit and Make current.

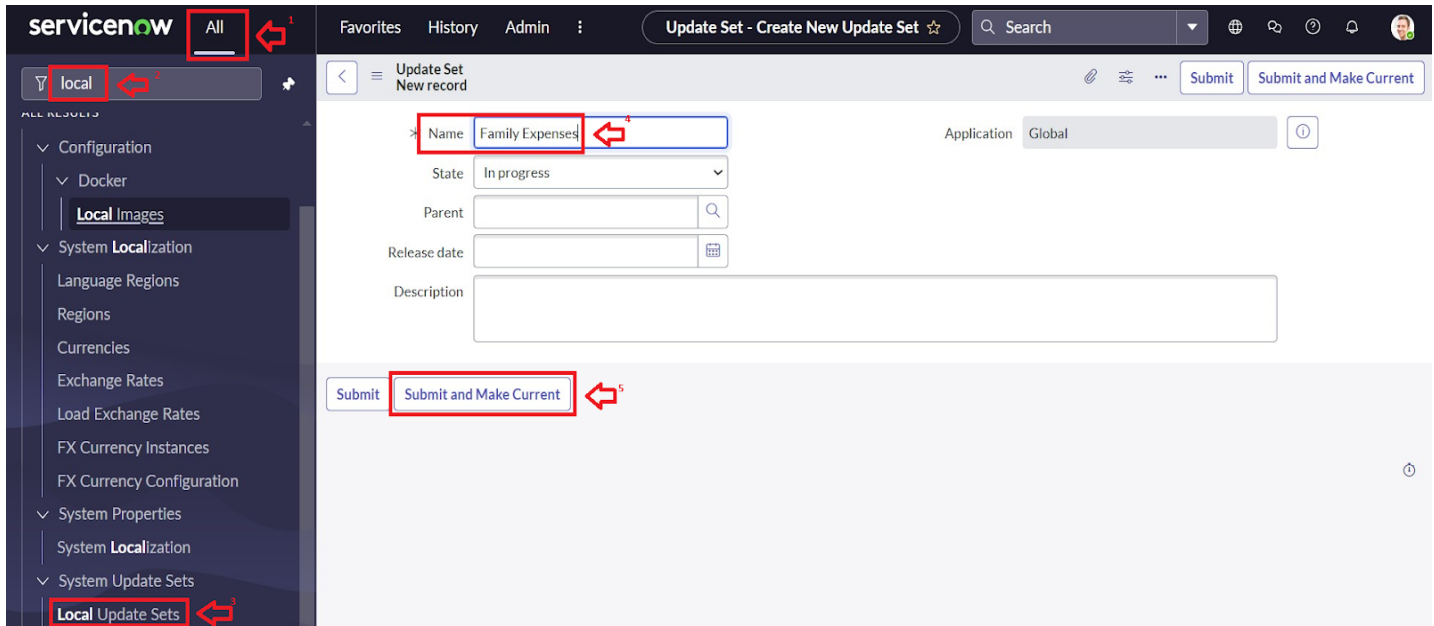


## Milestone 2: Creation of New Update Set

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.



ServiceNow Update Set - Create New Update Set

Application: Global

Name: Family Expenses

State: In progress

Parent:

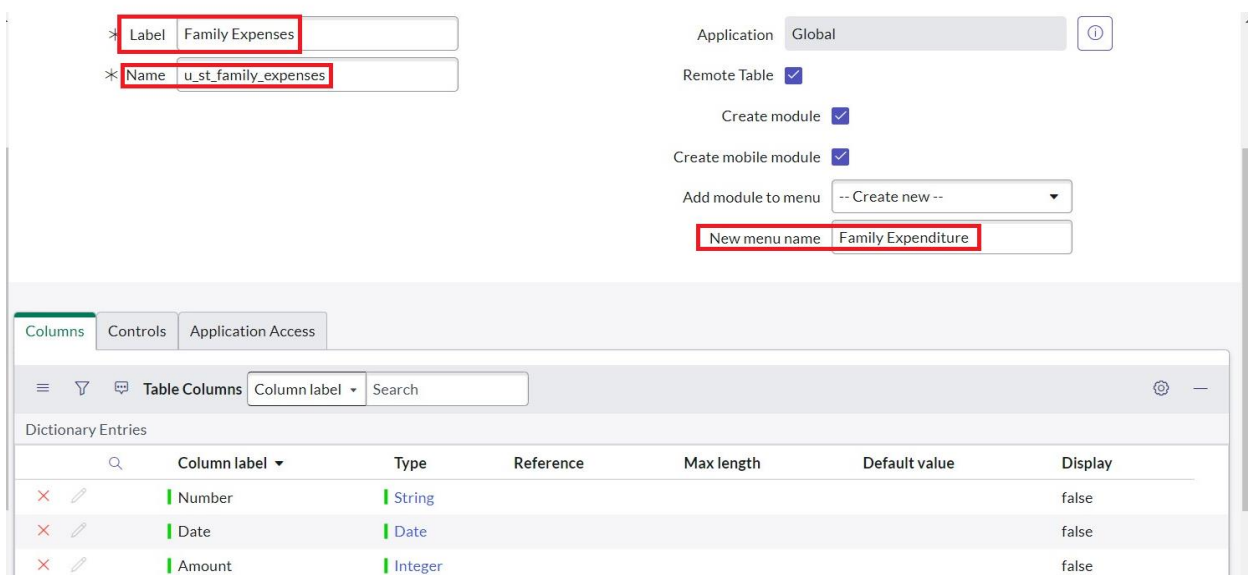
Release date:

Description:

Submit Submit and Make Current

### Milestone 3: 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 --

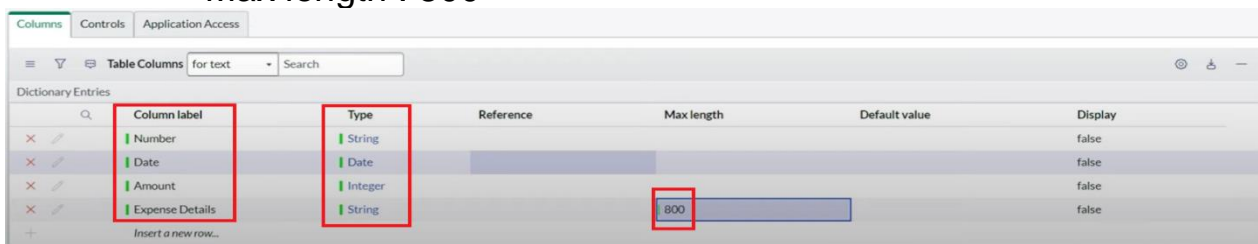
New menu name: Family Expenditure

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.

## Milestone 4: 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



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

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

## Milestone 5: 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** <sup>1</sup>

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

Use dynamic default ☒ <sup>2</sup>

Dynamic default value:  <sup>3</sup> [Search] [Info]

Delete Column | **Update** <sup>4</sup>

- 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



< ≡ Number Maintenance MFE [Edit] [Filter] [More] [Update] [Delete]

\* Table:  [Search] [Info]

Prefix:

\* Number:

Application:  [Info]

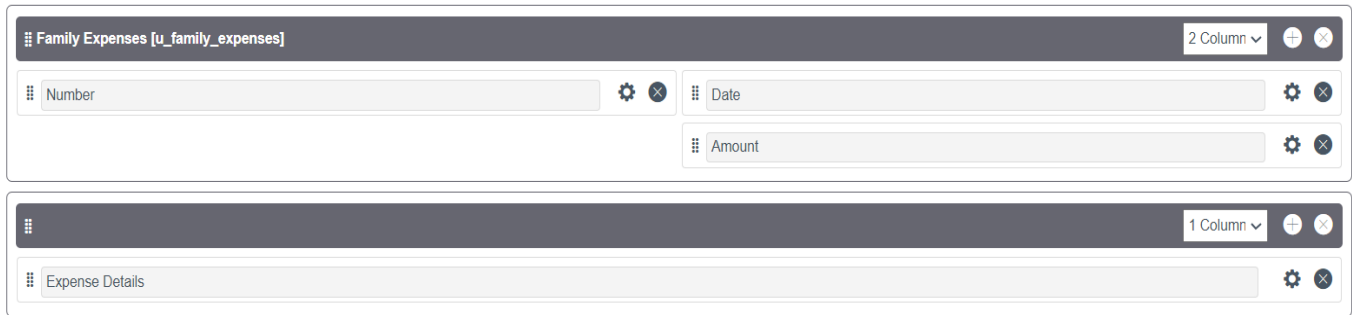
Number of digits:

[Update] [Delete]

9. Click on Submit.

## Milestone 6 : 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 7 : 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.

## **Milestone 8 : 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 Sav

## **Milestone 9 : 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.





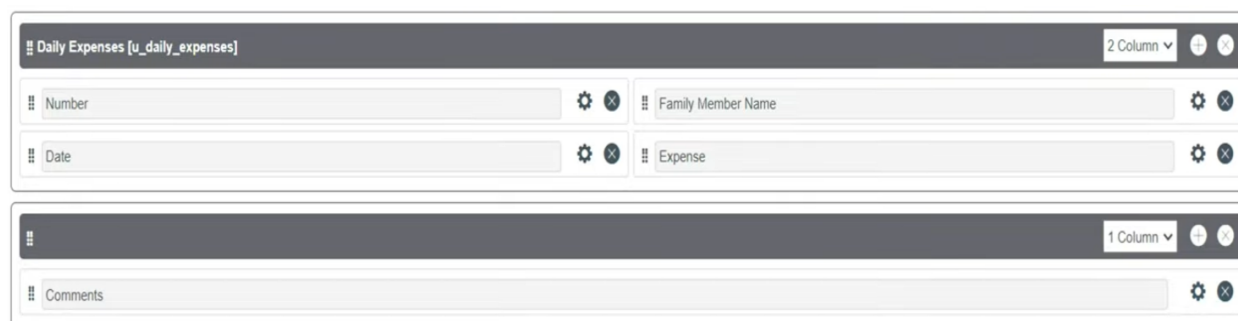
- 5.
6. Go to All >> In the filter search for Number Maintenance >> select Number Maintenance
7. Click on New.
8. Enter the below Details:  
 Table : Family Expenses  
 Prefix : MFE



9. Click on Submit.

## Milestone 10 : 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.



[[ Daily Expenses [u\_daily\_expenses] 2 Column

[[ Number [gear icon] [x icon] [[ Family Member Name [gear icon] [x icon]

[[ Date [gear icon] [x icon] [[ Expense [gear icon] [x icon]

[[ Comments [gear icon] [x icon]

1 Column

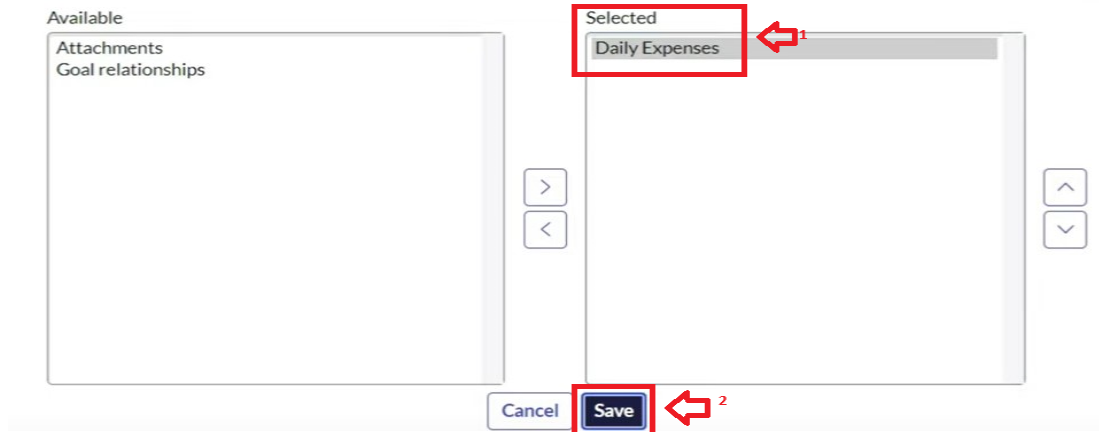
5. Make Number Read-Only Field by clicking on the gear icon and checking Read-Only
6. Make Date, Family Member Name Mandatory Field by clicking on the gear icon and checking Mandatory
7. Click on Save.

## **Milestone 11 : 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 12 : Configuring Related List on Family Expenses**

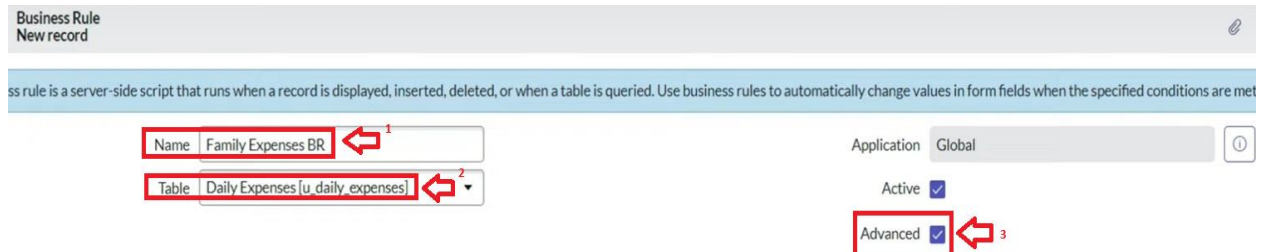
1. Go to All >> In the filter search for Family Expenses >> Open Family Expenses
2. Click on New
3. Go to the Header and right click there>> click on Configure >> Select Related Lists
4. Add Daily Expenses to the Selected Area.
5. Click on Save



## Milestone 13 : 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

When to run

Advanced

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

When

before

Order

100

Insert

☒

Update

☒

Delete

☐

Query

☐

Filter Conditions

Add Filter Condition

Add "OR" Clause

-- choose field --

-- oper --

-- value --

Role conditions

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
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.

## Milestone 14 : 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

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

## Milestone 15 : Conclusion

Implementing a family expense calculation system in ServiceNow provides a structured and automated way to track, analyze, and manage household finances. By leveraging ServiceNow's features such as forms, workflows, reports, and dashboards, family members can record daily expenses, categorize them (e.g., food, education, utilities, entertainment), and generate visual insights. This not only reduces manual effort but also improves accuracy and transparency in financial planning.

Overall, using ServiceNow for family expense management enhances budget control, decision-making, and savings strategies, demonstrating how enterprise platforms can be effectively customized for personal and household use.