



## **Calculating Family Expenses using Service Now**

**Team ID :** NM2025TMID18542

**Team Size :** 4

**Team Leader :** RAGUL A

**Team member :** RAKESH S

**Team member :** YOKESHWARAN M S

**Team member :** YUVARAJ V

Problem statement: **Calculating Family Expenses using Service Now**

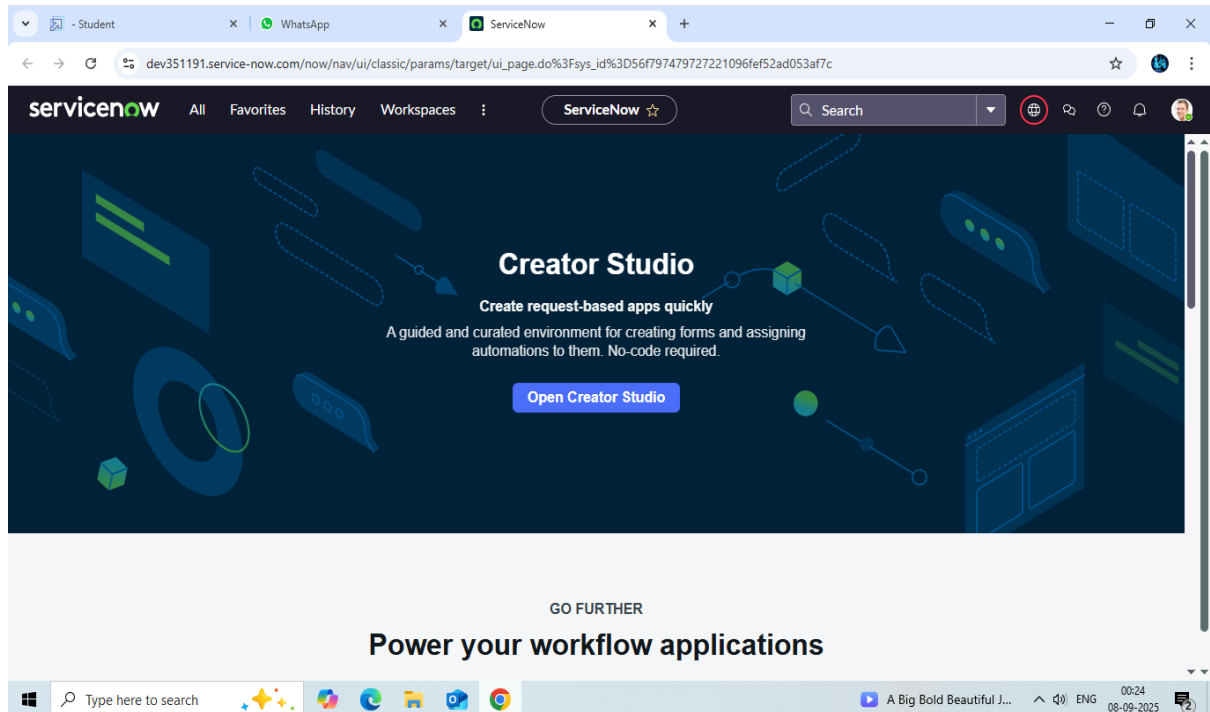
### **TASK INITIATION**

**Milestone 1 :** creat Setting up ServiceNow Instance

**Activity 1 :** 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 SetActivity 1: : *Creat* Creation of New Update Set

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



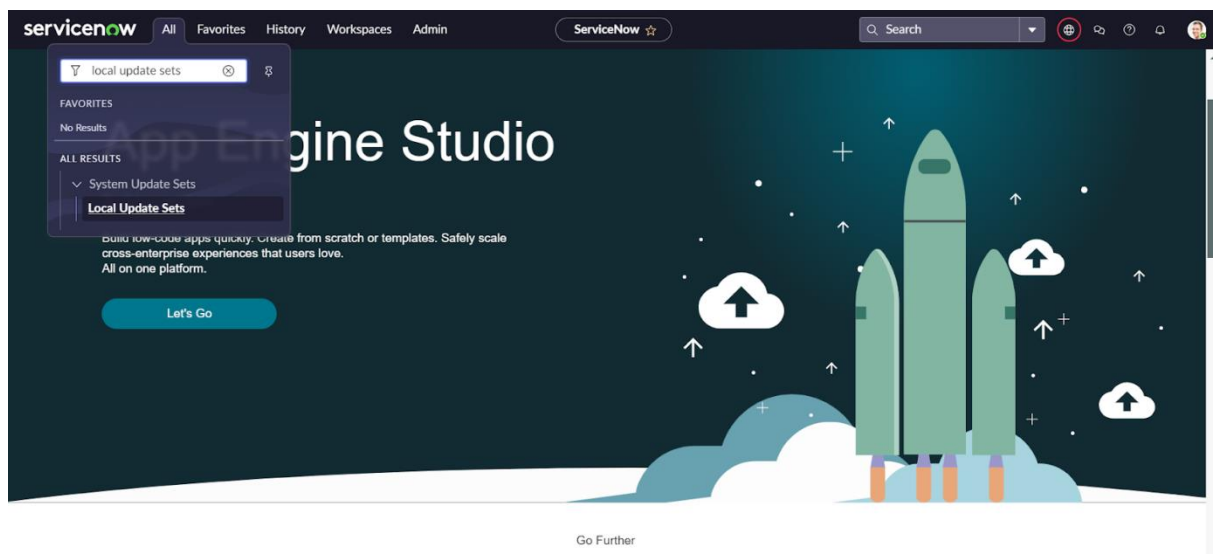
2. Enter the Details as:  
Name : Family Expenses
3. Then click on Submit and Make current.

The screenshot shows the ServiceNow interface for creating a new update set. The left sidebar contains a navigation menu with categories like Configuration, Docker, System Localization, and System Update Sets. The 'Local' and 'Local Update Sets' items are highlighted. The main form area is titled 'Update Set - Create New Update Set' and contains the following fields: Name (Family Expenses), State (In progress), Parent, Release date, and Description. The 'Submit and Make Current' button is highlighted.

## Milestone 3: Creation of Table

### 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.

The screenshot shows the ServiceNow interface for creating a new update set. The left sidebar contains a navigation menu with the following items: Configuration, Docker, Local Images, System Localization, Language Regions, Regions, Currencies, Exchange Rates, Load Exchange Rates, FX Currency Instances, FX Currency Configuration, System Properties, System Localization, System Update Sets, and Local Update Sets. The 'Local' and 'Local Update Sets' items are highlighted with red boxes and arrows. The main form is titled 'Update Set - Create New Update Set' and contains the following fields: Name (Family Expenses), State (In progress), Parent, Release date, and Description. The 'Submit and Make Current' button is highlighted with a red box and arrow.

## Milestone 4: Creation of Table

### Activity 1: Creat Creation of Family Expenses Table

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

Enter the Details:

Label : Family Expenses

Name : Auto-Populated

New menu name : Family Expenditure

\* Label   
 \* Name

Application  ⓘ  
 Remote Table ☒  
 Create module ☒  
 Create mobile module ☒  
 Add module to menu   
 New menu name

Columns Controls Application Access

Table Columns Column label Search ⓘ

Dictionary Entries

	Column label	Type	Reference	Max length	Default value	Display
<input checked="" type="checkbox"/> <input type="text"/>	Number	String				false
<input checked="" type="checkbox"/> <input type="text"/>	Date	Date				false
<input checked="" type="checkbox"/> <input type="text"/>	Amount	Integer				false

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

Columns						
Table Columns for text Search						
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
Insert a new row...						

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.

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.

Enter the below Details:

Table : Family Expenses

Prefix : MFE

The screenshot shows a form configuration window for a table named 'Family Expenses'. The window has a title bar with a back arrow, a menu icon, and the text 'Number MFE'. On the right side of the title bar are icons for a document, a list, and a search icon, followed by 'Update' and 'Delete' buttons. The form fields are as follows:

- \* Table: Family Expenses (with a search icon and an information icon)
- Prefix: MFE
- \* Number: (with a value of 1,000)
- Application: Global (with an information icon)
- Number of digits: (with a value of 7)

At the bottom of the form are 'Update' and 'Delete' buttons.

9. 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.

The screenshot shows a form configuration window for a table named 'Family Expenses [u\_family\_expenses]'. The window has a title bar with a menu icon, the text 'Family Expenses [u\_family\_expenses]', and a '2 Column' dropdown menu. The form is configured with the following fields:

- Number (with a gear icon and a close icon)
- Date (with a gear icon and a close icon)
- Amount (with a gear icon and a close icon)

Below the main form is a section for 'Expense Details' with a gear icon and a close icon.

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 Daily Expenses Table

### 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



Label: Daily Expenses  
Name: u\_daily\_expenses



Application: Global  
Create module: ☒  
Create mobile module: ☒  
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

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

The screenshot shows a 'Number New record' form. It has several fields: 'Table' (set to 'Daily Expenses'), 'Prefix' (set to 'DfE'), 'Number' (set to '1,000'), 'Application' (set to 'Global'), and 'Number of digits' (set to '7'). A 'Submit' button is at the bottom right. Red arrows and boxes highlight specific elements: arrow 1 points to the 'Table' field, arrow 2 points to the 'Prefix' field, and arrow 3 points to the 'Submit' button.

9. 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.

The screenshot shows the 'Daily Expenses [u\_daily\_expenses]' form configuration. It has a header bar with '2 Column' and a plus icon. Below the header, there are four fields: 'Number', 'Family Member Name', 'Date', and 'Expense'. Each field has a gear icon for configuration. At the bottom, there is a 'Comments' field with a gear icon. The form is titled 'Daily Expenses [u\_daily\_expenses]' and has a '1 Column' dropdown at the bottom right.

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

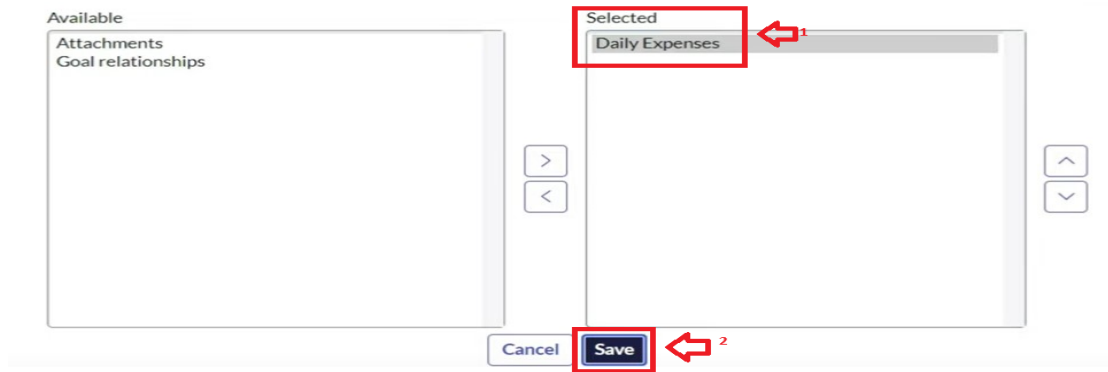
### Activity 1: Creation of Relationship between Family Expenses and Daily Expenses tables

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 7:** Configuring Related List on Family Expenses

### Activity 1: Configuring Related List on Family Expenses

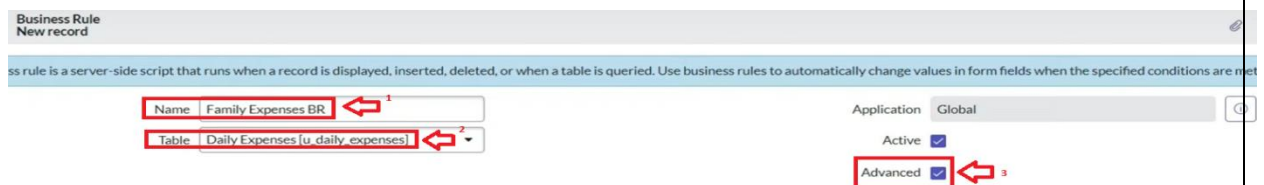
1. Go to All >> In the filter search for Family Expenses >> Open Family Expenses
2. Click on New
3. Go to the Header and right click there>> click on Configure >> Select Related Lists
4. Add Daily Expenses to the Selected Area.
5. Click on Save



## Milestone 8: Creation of Business Rules

### Activity 1: 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

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 icon]

Insert ☒

Update ☒

Delete ☐

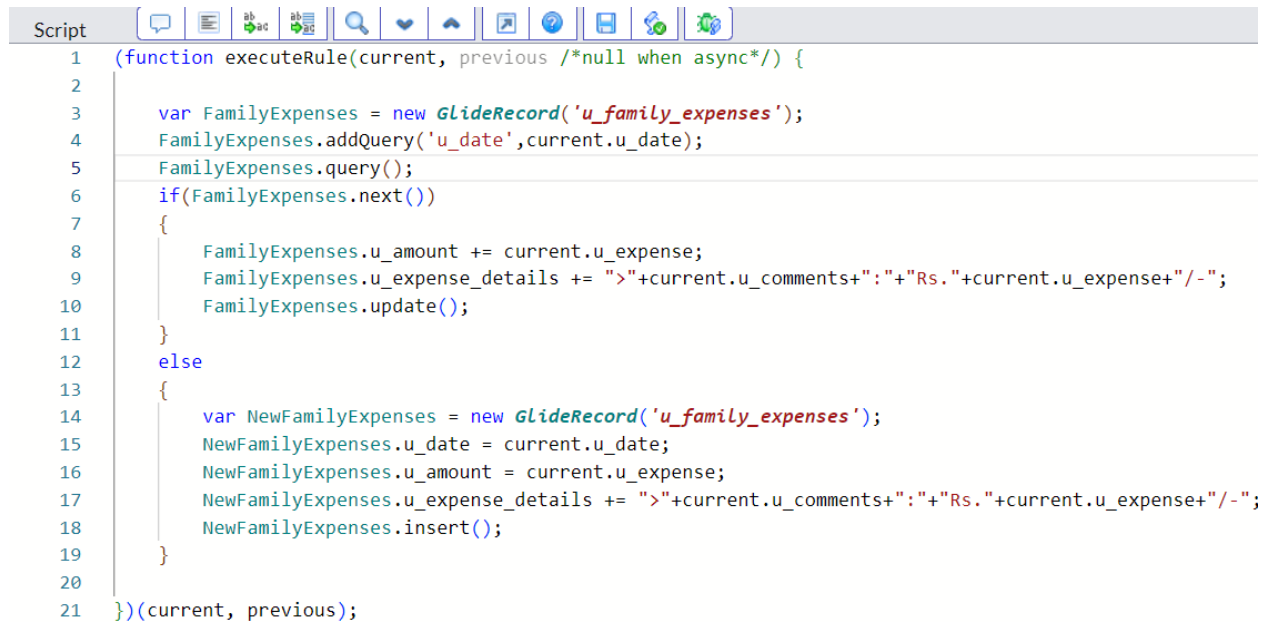
Query ☐

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.

## Milestone 9: Configure the Relationship

### Activity 1: Create 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.

The screenshot shows the 'Relationship Daily Expenses' form in ServiceNow. The form has a header bar with a back arrow, a menu icon, the title 'Relationship Daily Expenses', and buttons for 'Update', 'Delete', and navigation arrows. Below the header, there are fields for 'Name' (set to 'Daily Expenses'), 'Application' (set to 'Global'), and an 'Advanced' checkbox. A red box labeled '1' highlights the 'Applies to table' field, which is set to 'Family Expenses [u\_family\_expenses]'. Below this, the 'Queries from table' dropdown is set to 'Daily Expenses [u\_daily\_expenses]'. A blue informational banner states: '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.' Below the banner is a 'Query with' section containing a code editor. A red box labeled '2' highlights the code editor, which contains the following script: 

```
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);
```

 A red arrow labeled '3' points to the 'Update' button at the bottom left of the form.

**Conclusion:** Calculating family expenses using ServiceNow provides a structured and efficient way to manage household finances. By leveraging its automated workflows, customizable dashboards, and reporting features, families can easily record income, track expenses, categorize spending, and generate insights into financial patterns. This approach not only minimizes manual effort and errors but also promotes transparency, better budgeting, and informed decision-making for future financial planning. Ultimately, ServiceNow acts as a smart tool to transform traditional expense tracking into a digital, reliable, and user-friendly system.