



ServiceNow Project :

Calculating Family Expenses using Service Now

The project aims to develop a comprehensive expense calculation system using ServiceNow, enabling users to efficiently track and manage family expenses. The system will feature expense categorization, budgeting, real-time tracking, and reporting. It will provide a user-friendly interface, scalability, and seamless integration, empowering users to make informed financial decisions.

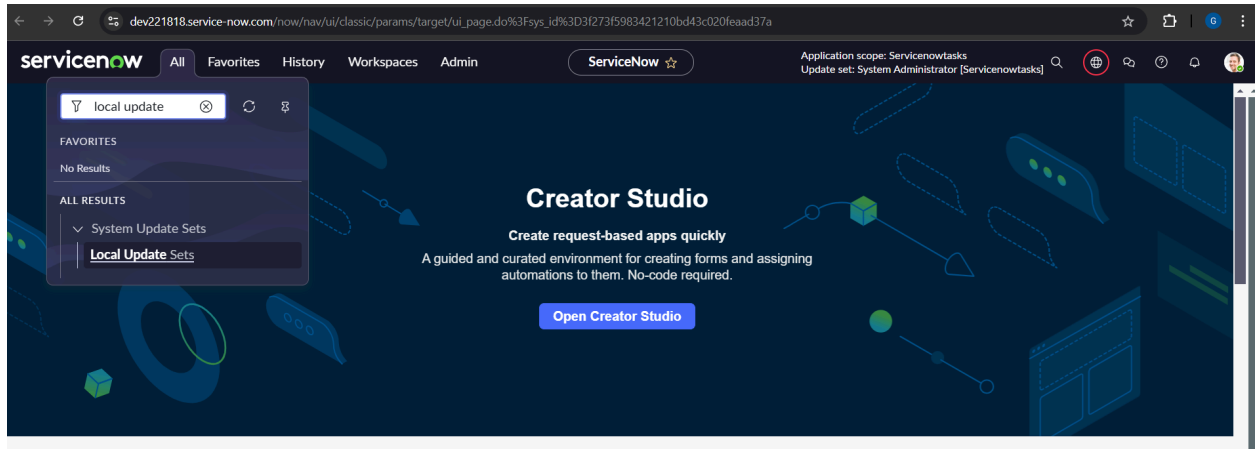
Setting up ServiceNow Instance

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

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.

* Name	Family Expenses	Application	Global
State	In progress	Created	2024-12-05 06:05:50
Parent		Created by	admin
Release date		Merged to	
Install date			
Installed from			
Description			

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

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

Columns						
Table Columns for text						
Dictionary Entries	Column label	Type	Reference	Max length	Default value	Display
<input type="checkbox"/> <input type="checkbox"/>	Number	String				false
<input type="checkbox"/> <input type="checkbox"/>	Date	Date				false
<input type="checkbox"/> <input type="checkbox"/>	Amount	Integer				false
<input type="checkbox"/> <input type="checkbox"/>	Expense Details	String		800		false

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

Making Number Field an Auto-Number

- Double click on the Number Field/Column.
- Go down and double click on Advanced view
- In Default Value:
Use dynamic default : check the box
Dynamic default value : Get Next Padded Number
- 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

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

servicenow All : Number - Ne... ☆ A.. U.. ? ? ? ? ?

< ≡ Number New record [icon] [icon] [icon] [icon] [icon] Submit

* Table
Family Expenses [search] [info]

Prefix
MFE

* Number
[input] 1,000

Application
Servicenowtasks [info]

Number of digits
[input] 7

Submit

Related Links
[Show Counter](#)

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 [x_snc_si] Default view Form Design

Fields Field Types

Filter

Fields

Class

Formatters

Activities (filtered)

Contextual Search Results

Ratings

Family Expenses [x_snc_servicenowta_st_family_expenses] 2 Column

Number [gear] [close] Date [gear] [close]

Amount [gear] [close]

Expense Details [gear] [close]

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

The screenshot shows the 'New Table' configuration screen. On the left, there are three input fields: 'Label' with the value 'Daily Expenses' (marked with a red box and arrow 1), 'Name' with the value 'u_daily_expenses' (marked with a red box and arrow 2), and 'Extends table' which is empty. On the right, there are two checked checkboxes: 'Create module' and 'Create mobile module'. Below them is an 'Application Menu' dropdown menu set to 'Family Expenditure' (marked with a red box and arrow 3).

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



9. 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.

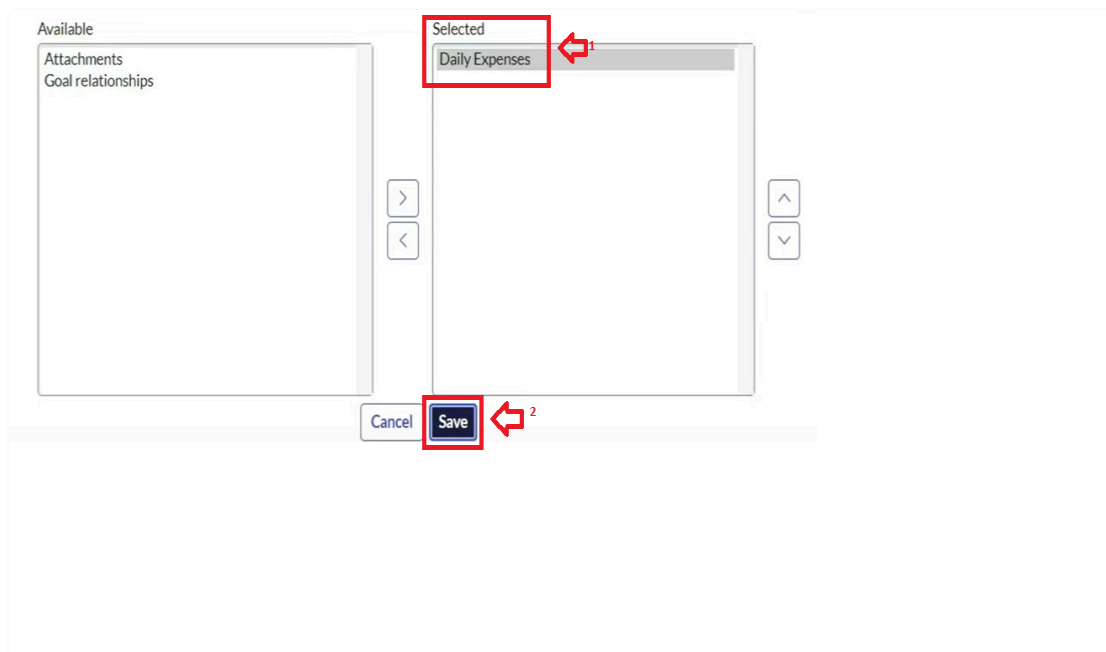
Creation of Relationship

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

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

ss 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

Table: Daily Expenses [u.daily_expenses]

Application: Global

Active: ☒

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: ☐

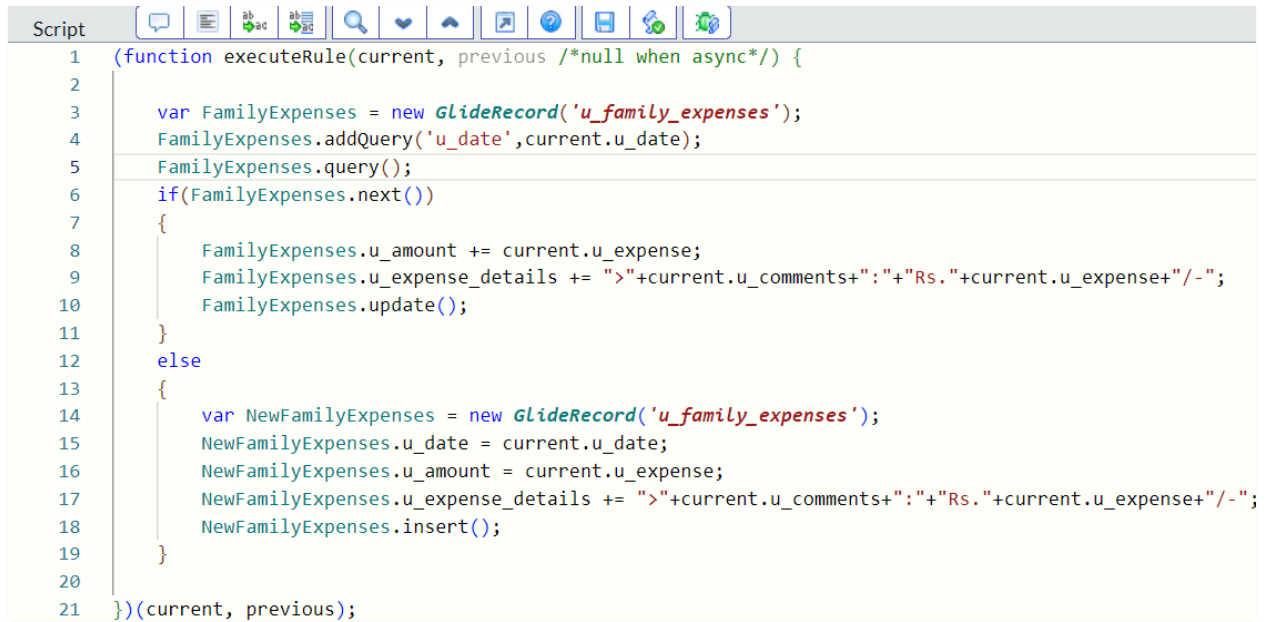
Filter Conditions: Add Filter Condition Add "OR" Clause

-- 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.

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);

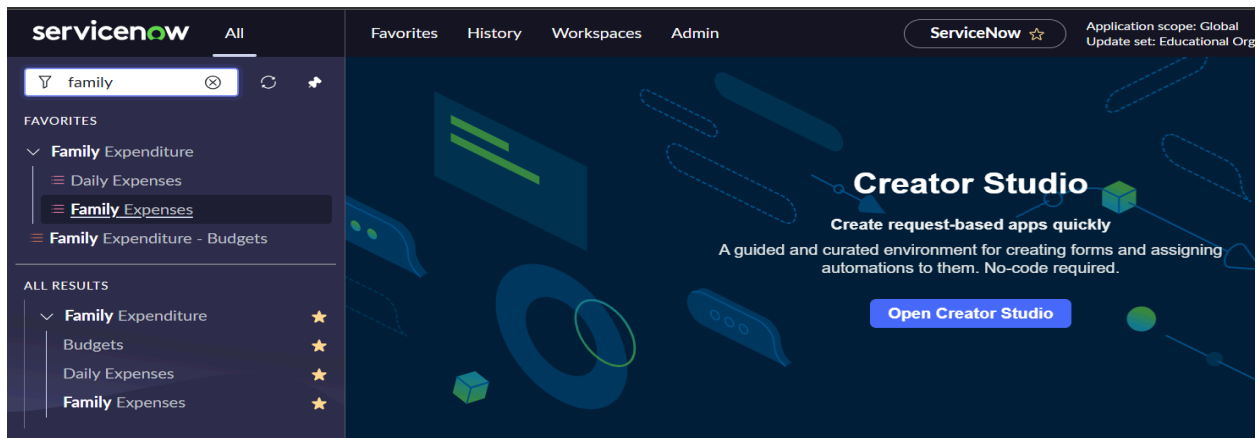
```

Update

Delete

Conclusion

In conclusion, implementing the "Calculation of Family Expenses Using ServiceNow" project offers numerous benefits to the household. By leveraging the robust capabilities of ServiceNow, family members can efficiently submit, track, and manage their expenses in a centralized and streamlined manner.



Number	Amount	Date	Expense Details
MFE0001016	2,200	2024-12-08	>Market >Rs.1200/->Beauty Parlour:Rs.10...
MFE0001014	2,400	2024-12-06	>Simhachalam:Rs.1000/->Petrol:Rs.400/->S...
MFE0001015	2,400	2024-12-07	>Remaining:Rs.1200/->Remaining:Rs.1200/-

servicenow

All

Favorites

History

Workspaces

Admin

Daily Expenses

Application scope: Global

Update set: Educational Organisation [Global]

family

family

FAVORITES

Family Expenditure

Daily Expenses

Family Expenses

Family Expenditure - Budgets

ALL RESULTS

Family Expenditure

Budgets

Daily Expenses

Family Expenses

Daily Expenses

Number

Search

Actions on selected rows...

New

All

Number	Comments	Date	Expense	Family Member Name
DFE0001010	Simhachalam	2024-12-06	1,000	Swetha
DFE0001012	Remaining	2024-12-07	1,200	Madee
DFE0001013	Market	2024-12-08	1,200	john
DFE0001011	Petrol	2024-12-06	400	Maha
DFE0001014	Beauty Parlour	2024-12-08	1,000	Sree

Additionally we can add to dashboard if needed for the visualization purpose

