

# CALCULATING FAMILY EXPENSES USING SERVICENOW

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**Team Size :** 5

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## Problem Statement:

Managing and tracking family expenses manually often leads to errors, lack of transparency, and difficulty in budgeting. Using ServiceNow, we can build an application to record, categorize, and analyze family expenses for better financial planning.

## Objectives:

Automate the process of tracking family expenses.

Provide real-time reports and dashboards on spending patterns.

Categorize expenses (Food, Rent, Utilities, Education, Entertainment, etc.).

Ensure better decision-making with ServiceNow workflows and analytics.

## Skills:

With these ServiceNow skills, you can design an app that records family expenses, auto-calculates totals, and provides dashboards for financial planning.

## TASK INITIATION

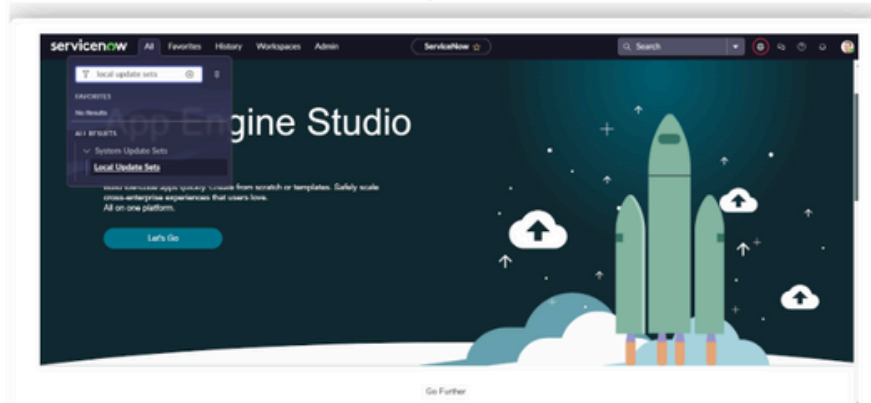
Task 1: Creation of new  
update set

Activity :

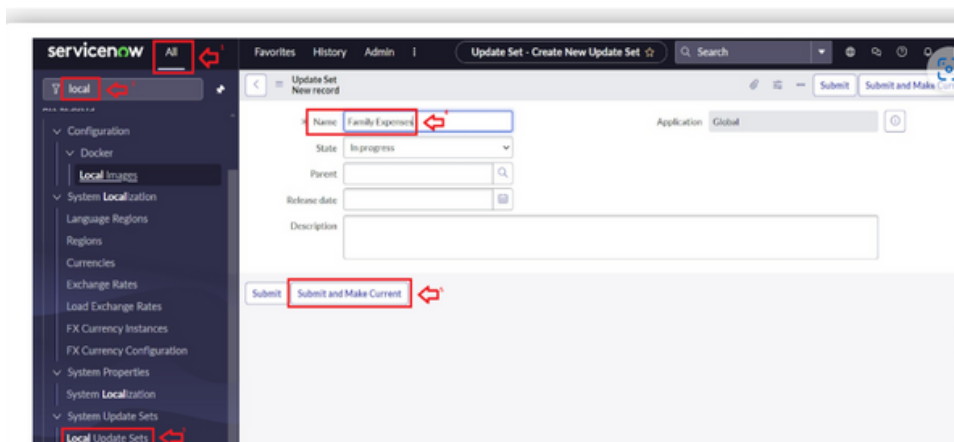
Creation of new update set

## 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.

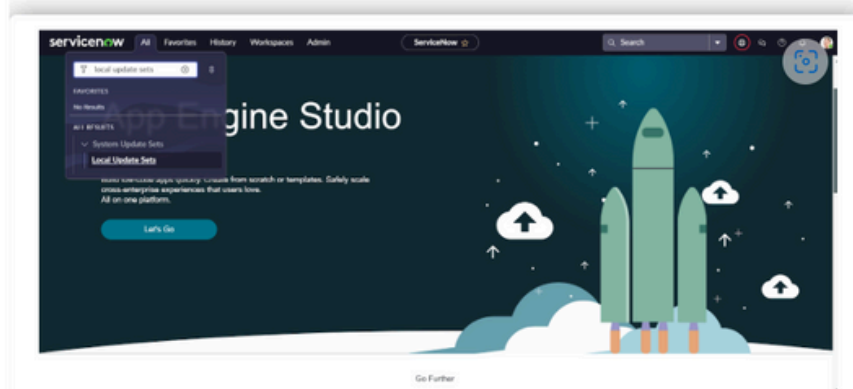


## Task 2: Creation of table

Activity : Creation of new update set

## Creation Of New Update Set

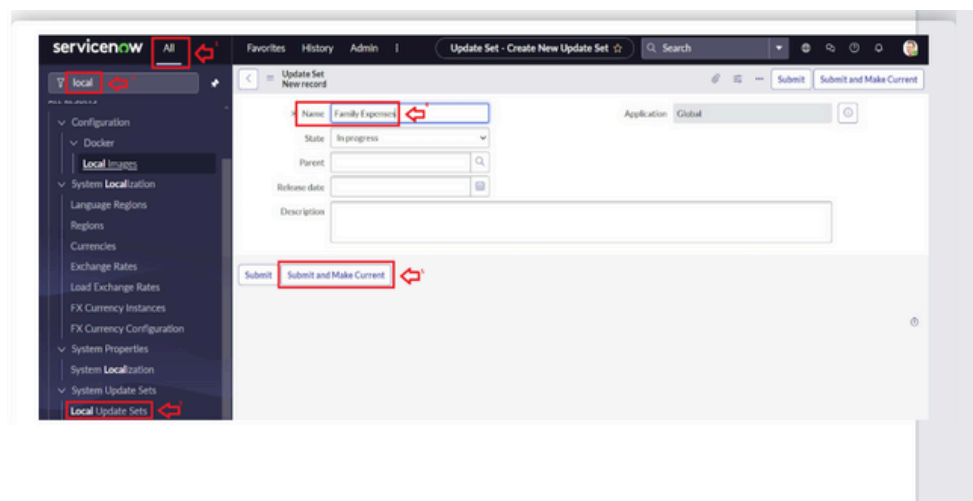
1. Go to All >> In the filter search for Local Update set > click on New.



2. Enter the Details as:

Name : Family Expenses

3. Then click on Submit and Make current.



## Task 3:Creation of table

### Activity 1:Creation of family expenses table

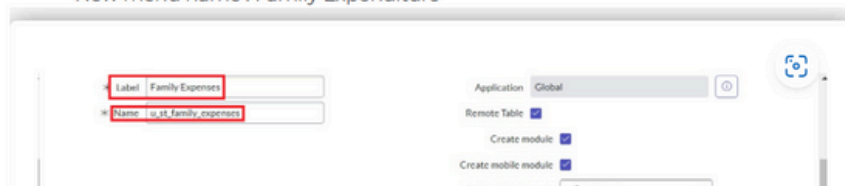
1. Go to All > In the filter search for Tables > click on New.

2. Enter the Details:

Label : Family Expenses

Name : Auto-Populated

New menu name : Family Expenditure

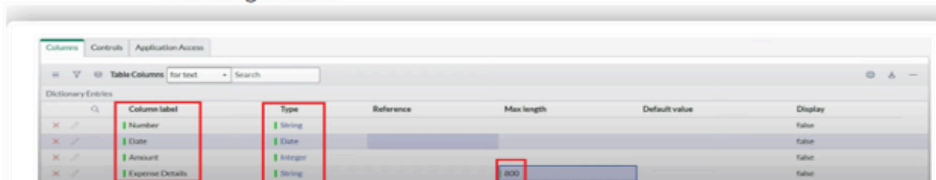


3. Go to the Header and right click there>> click on Save.

## Activity 2: Creation of column filed

### 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

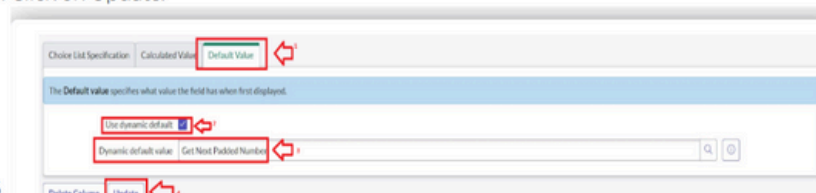



9. Go to the Header and right click there>> click on Save.

## Activity 3 : Making number field an auto-number

### 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

The screenshot shows the SAP Number Factory configuration for 'Family Expenses'. The 'Table' field is set to 'Family Expenses' and the 'Prefix' is 'MFE'. The 'Number' field is set to '1,000' and the 'Application' is 'Global'. The 'Number of digits' is set to '7'. The 'Update' and 'Delete' buttons are visible at the top right.

9. Click on Submit.

## Activity 4 : Configure the form

### 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 the SAP Form Designer for 'Family Expenses'. The form is titled 'Family Expenses [u\_family\_expenses]' and has 2 columns. The fields are 'Number', 'Date', and 'Amount'. The 'Number' field is set to 'Read-Only' and the 'Date' and 'Amount' fields are set to 'Mandatory'. The 'Expense Details' section is also visible.


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.

## Task 4 : Creation of table (Daily Expenses)

### Activity 1 : Creation of daily expenses table

**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 a form for creating a new table. It includes fields for 'Label' (set to 'Daily Expenses'), 'Name' (set to 'u\_daily\_expenses'), and 'Add module to menu' (set to 'Family Expenditure'). There are also checkboxes for 'Create module' and 'Create mobile module', both of which are checked. A search bar for 'Extends table' is present. The 'Application' is set to 'Global'.

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

### Activity 2: Creation of columns (Field)

#### 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

# Activity 3 : Making number field auto-number

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

9. Click on Submit.

## Activity 4 : Configure the form

### 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.



## Task 5: Creation of relationship

Activity : Creation of relation ship between family expenses and daily expenses tables

### 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.

## Task 6 :Configuring related list on family expenses

Activity 1 : Configuring related list on family expenses

### 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

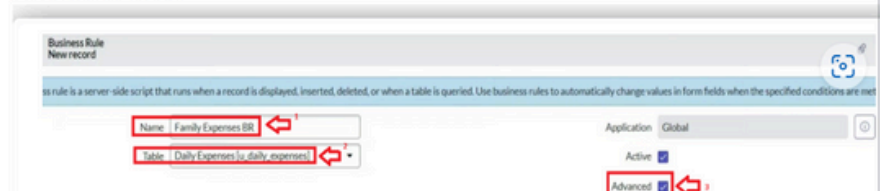


## Task 7 : Creation of business rules

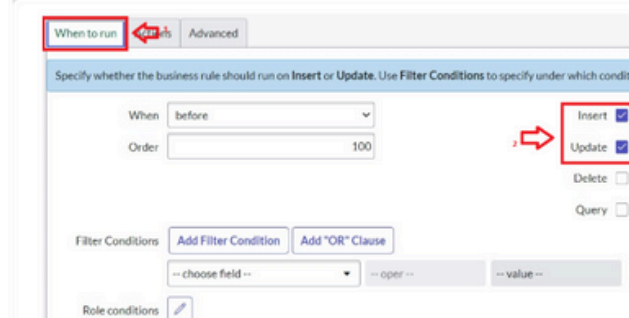
### Activity : Creation of business rules

#### 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
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.

## Task 8 : Configure the relationship

### Activity : Configure the relationship

#### 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

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 :

Implementing family expense calculation in ServiceNow provides a structured and automated way to manage and analyze household financial data. By leveraging ServiceNow's capabilities such as forms, workflows, reporting, and dashboards, families can track income and expenses in real time, categorize spending, and generate insights for better financial planning. This not only reduces manual effort but also enhances accuracy, transparency, and decision-making in managing family budgets.