

## **Performance and Testing**

|                     |   |
|---------------------|---|
| <b>Date</b>         | 30/10/2025                                    |
| <b>Time id</b>      | NM2025TMID05890                               |
| <b>Project name</b> | Calculating Family Expenses using Service Now |
| <b>Maximum mark</b> | 4 marks                                       |

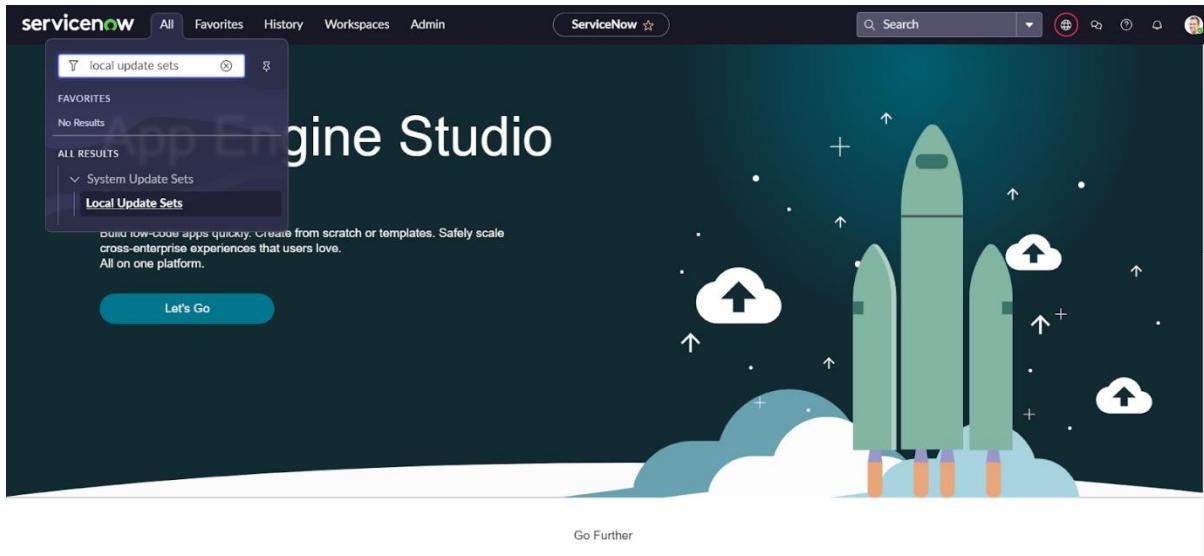
### **Model performance testing**

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**

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



## 2. Enter the Details as:

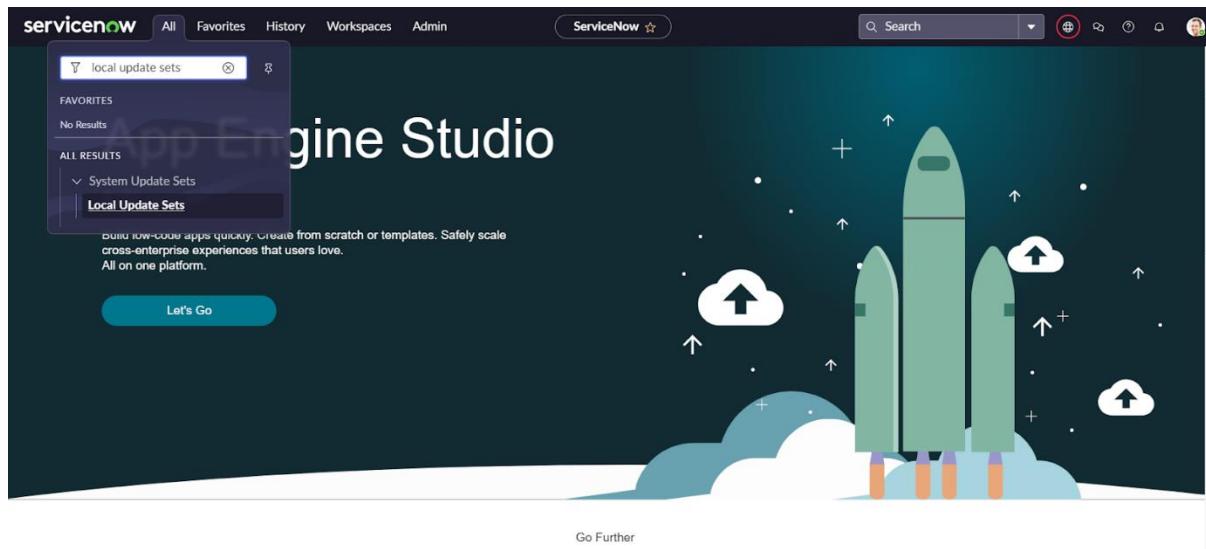
Name : Family Expenses

## 3. Then click on Submit and Make current.

This screenshot shows the "Update Set - Create New Update Set" form. The "Name" field is filled with "Family Expenses". The "Submit and Make Current" button at the bottom is highlighted with a red box. The left sidebar shows a navigation tree with "Local Update Sets" selected.

## Creation of Table

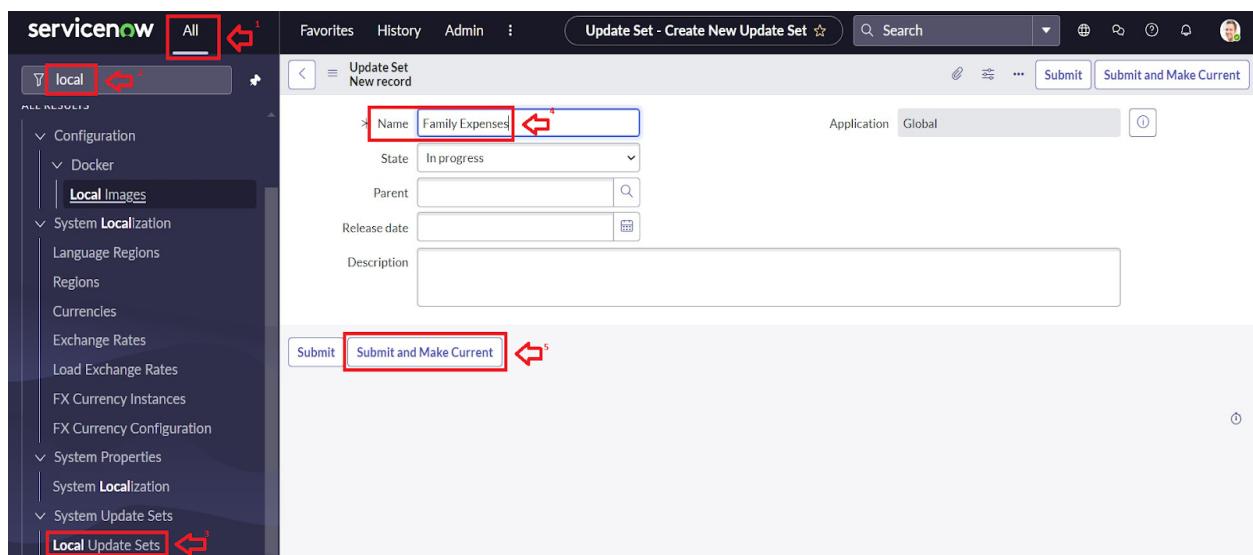
**1. Go to All >> In the filter search for Local Update set > click on New.**



**2. Enter the Details as:**

**Name : Family Expenses**

**3. Then click on Submit and Make current.**



## 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

The screenshot shows the 'Create Table' dialog box. At the top, there are two input fields: 'Label' containing 'Family Expenses' and 'Name' containing 'u\_st\_family\_expenses'. To the right, there are several configuration options: 'Application' set to 'Global', 'Remote Table' checked, 'Create module' checked, 'Create mobile module' checked, 'Add module to menu' set to '-- Create new --', and 'New menu name' set to 'Family Expenditure'. Below this, there is a table titled 'Dictionary Entries' with columns: 'Column label', 'Type', 'Reference', 'Max length', 'Default value', and 'Display'. The table contains three rows with values: 'Number', 'String', 'false'; 'Date', 'Date', 'false'; and 'Amount', 'Integer', 'false'.

| 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.

## 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

| Column label    | Type    | 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 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.

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

\* Table: Family Expenses

Prefix: MFE

\* Number: 1,000

Application: Global

Number of digits: 7

Update Delete

8.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.

The screenshot shows the configuration interface for a form titled "Family Expenses [u\_family\_expenses]". The top section, labeled "2 Column", contains three fields: "Number" (read-only), "Date" (mandatory), and "Amount" (mandatory). The bottom section, labeled "1 Column", contains a single field "Expense Details". Both sections have gear and X icons for configuration.

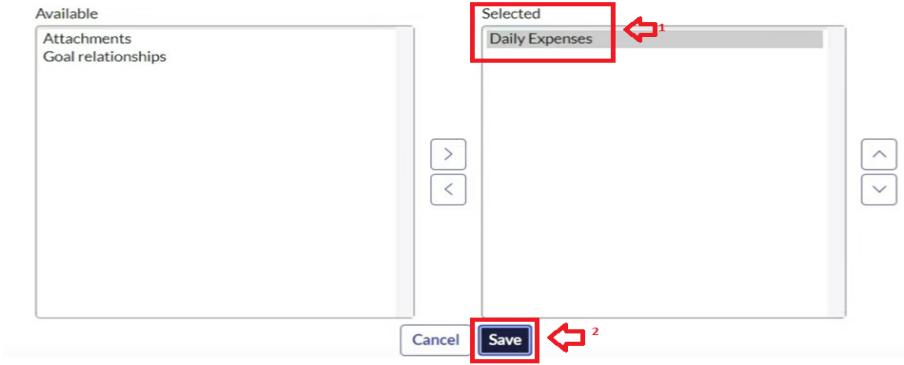
5. Make Number Read-Only Field by clicking on the gear icon and checking Read-Only
6. Make Date, Amount Mandatory Field by clicking on the gear icon and checking Mandatory
7. Click on Save.

## **Creation of 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.

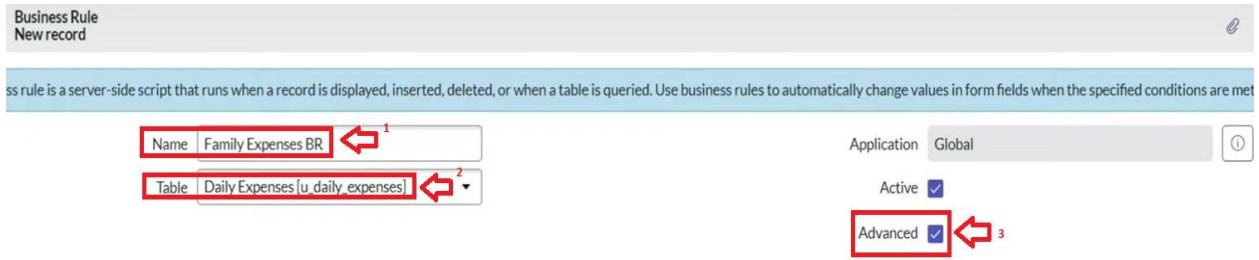
## **Configuring Related List on Family Expenses**

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**



## 4. In when to run Check Insert and Update

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

|   |        |  |
|---|--------|--|
| When  | before | Actions                                    |
| Order   | 100    | Insert <input checked="" type="checkbox"/> |
|   |        | Update <input checked="" type="checkbox"/> |
|   |        | Delete <input type="checkbox"/>            |
|   |        | Query <input type="checkbox"/>             |
| Filter Conditions   |        |  |
| <a href="#">Add Filter Condition</a> <a href="#">Add "OR" Clause</a><br>-- 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);

```

```

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);

```

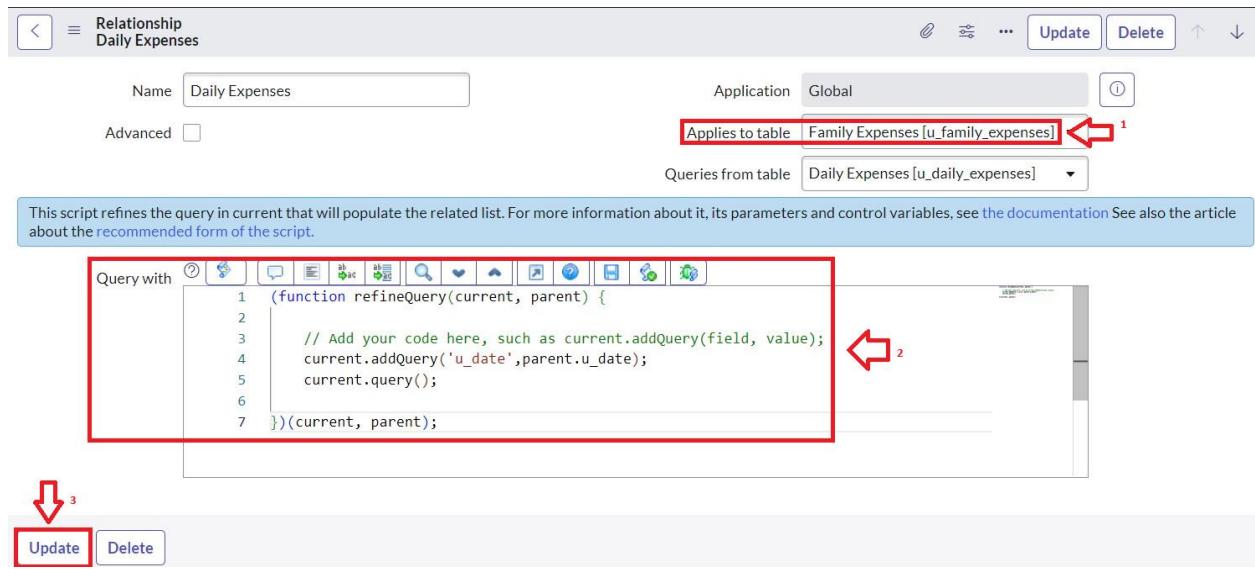
6. Go to the Header and right click there>> click on  
Save

## 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.**



## Conclusion

Calculating family expenses is fundamental for maintaining financial stability and achieving long-term goals. Accurate tracking of expenses allows families to understand their spending habits, identify unnecessary costs, and allocate funds more effectively across needs, wants, and savings. Utilizing tools or digital systems to automate this process reduces errors and saves time, enhancing transparency and collaboration among family members. Implementing a well-structured budgeting method, such as the 50/30/20 rule or envelope budgeting, empowers families to balance essential expenses

with discretionary spending and savings. Ultimately, regular and thoughtful expense calculation fosters informed decision-making, reduces financial stress, and supports a secure and prosperous household financial future.