

Calculating Family Expenses using Service Now

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Problem Statement:

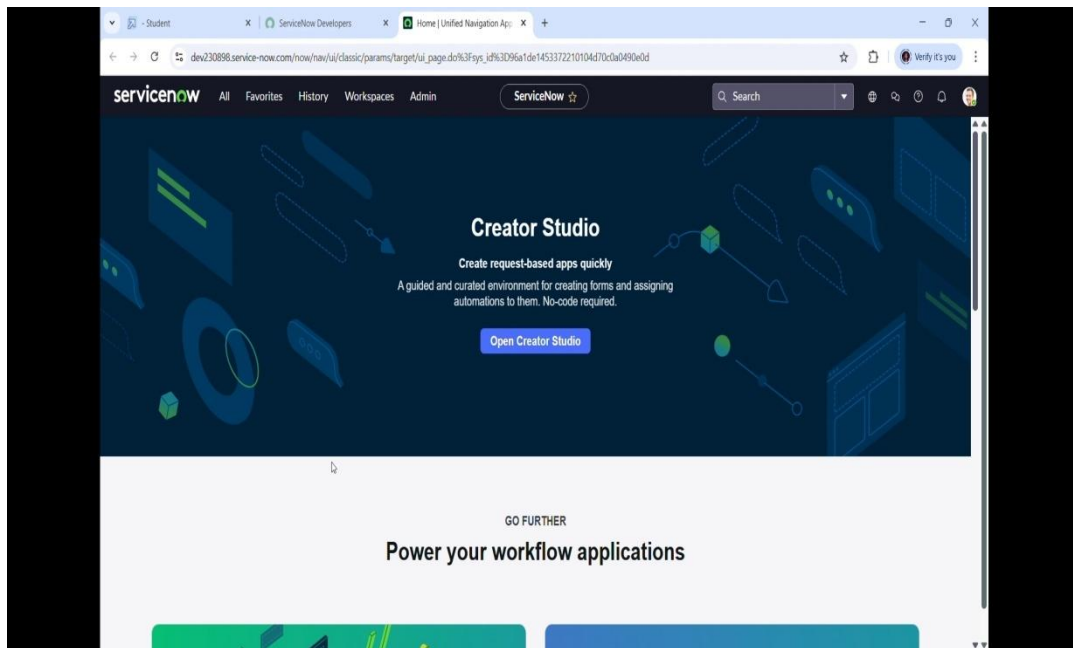
The project aims to develop a comprehensive expense calculation system using ServiceNow. This system will enable users to track and manage family expenses efficiently. It will include features such as expense categorization, budget setting, real-time tracking, and reporting capabilities. Utilizing ServiceNow's robust platform, the project will ensure seamless integration, user-friendly interface, and scalability to accommodate varying family sizes and financial complexities. The end goal is to empower users with the tools they need to make informed financial decisions and promote financial well-being within the family unit.

TASK INITIATION

Milestone 1: Setting up ServiceNow Instance

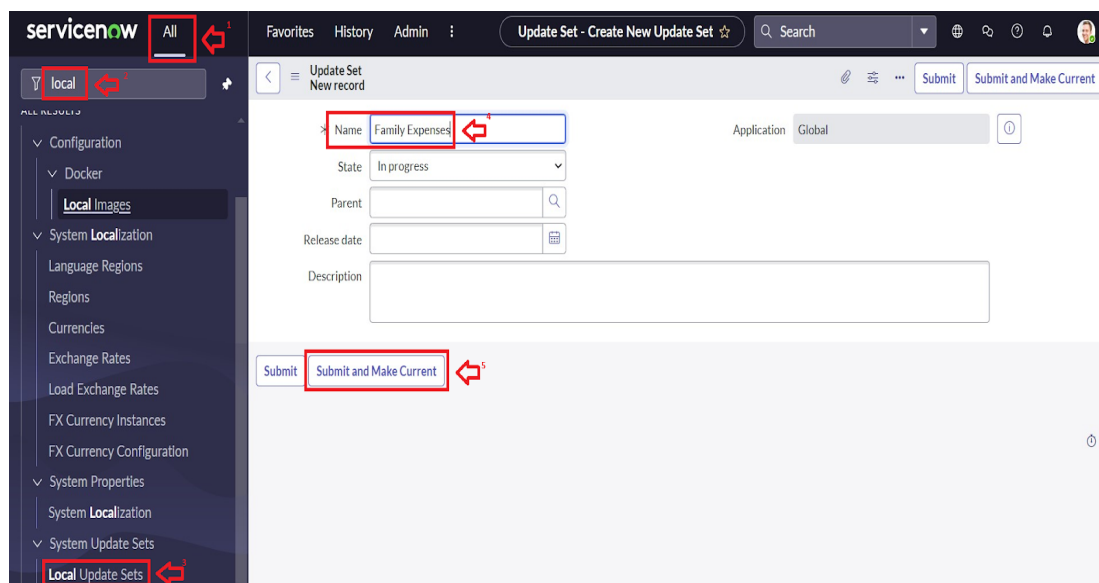
Activity 1: Setting up ServiceNow Instance

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.



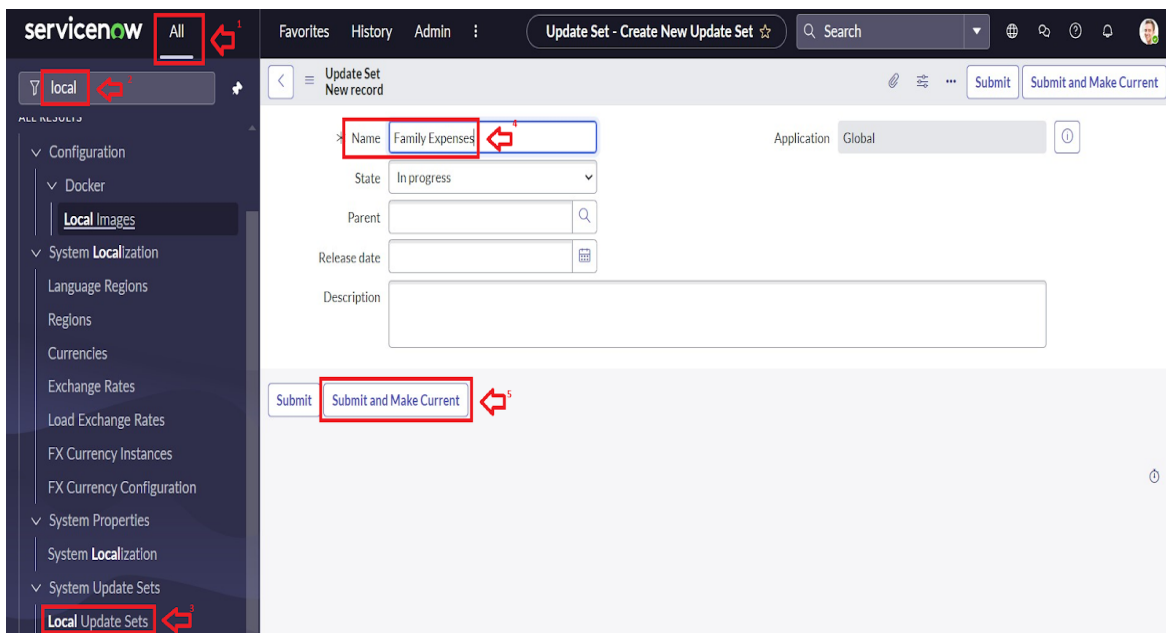
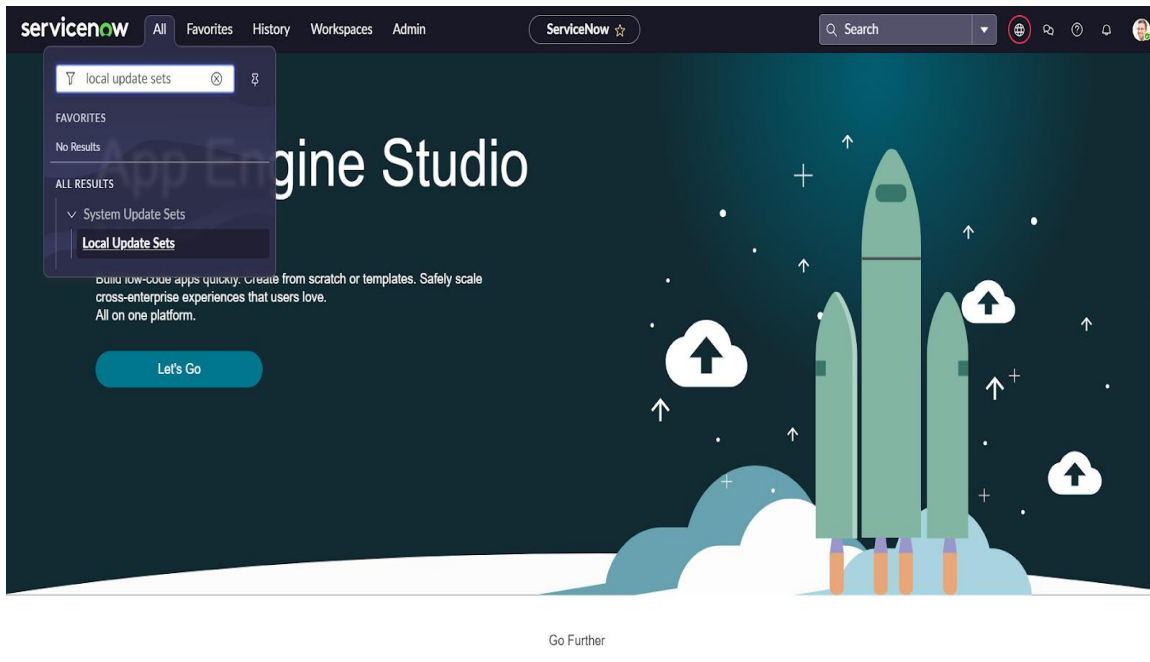
Milestone 2 : Activity 1: Creation of New Update Set

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.



Milestone 3: 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.



Milestone 4: 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.

The screenshot shows a configuration window for a new table. On the left, there are two input fields: 'Label' with the value 'Family Expenses' and 'Name' with the value 'u_st_family_expenses'. On the right, there are several settings: 'Application' is set to 'Global', 'Remote Table' is checked, 'Create module' is checked, 'Create mobile module' is checked, 'Add module to menu' is set to '-- Create new --', and 'New menu name' is set to 'Family Expenditure'. Below these settings, there is a tabbed interface with 'Columns' selected. The 'Table Columns' section shows a search bar and a table of dictionary entries.

Column label	Type	Reference	Max length	Default value	Display
Number	String			false	
Date	Date			false	
Amount	Integer			false	

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
Double click on insert a new row again

7. 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.

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

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.
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
8. Click on Submit.

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**

< ≡ Number MFE 🔍 ⚙️ ... Update Delete

* Table **Family Expenses** 🔍 ⓘ

Prefix **MFE**

* Number 1,000

Application Global ⓘ

Number of digits 7

Update Delete

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.
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.

Family Expenses [u_family_expenses] 2 Column ▾ + ✕

Number ⚙️ ✕

Date ⚙️ ✕

Amount ⚙️ ✕

Expense Details ⚙️ ✕

Milestone 5: Creation of Table (Daily Expenses)

Activity 1: Creation of Daily Expenses Table

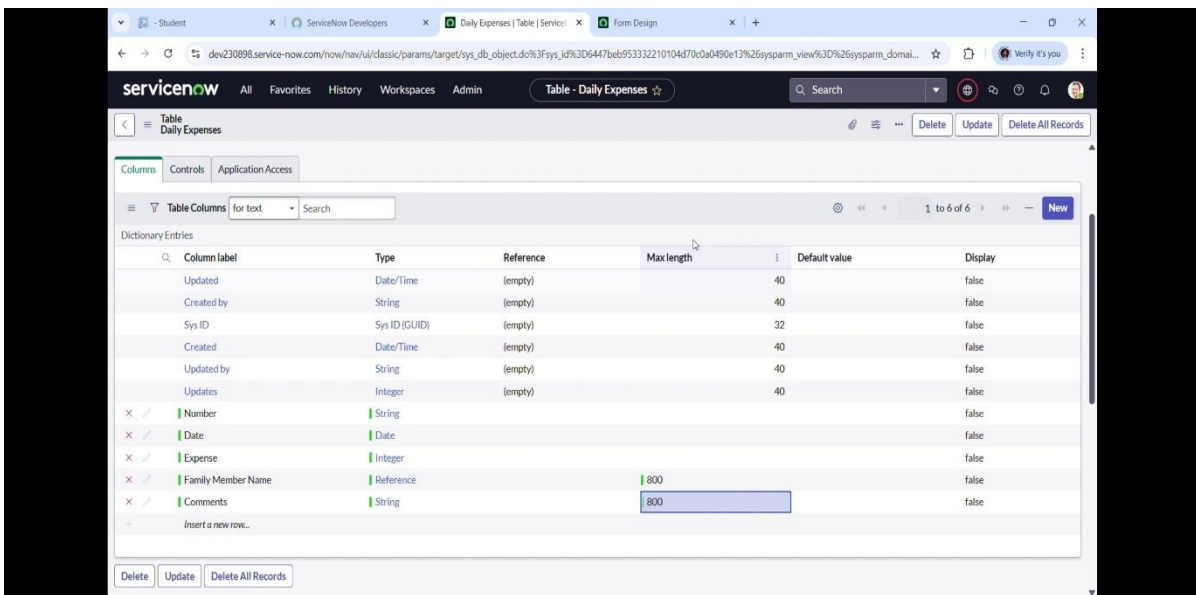
1. Go to All > In the filter search for Tables > click on New.
2. Enter the Details:
Label: Daily Expenses
Name: Auto-Populated
Add Module to menu: Family Expenditure
3. Go to the Header and right click there>> click on Save.

The screenshot shows the 'Details' section of a table creation interface. 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. The 'Application' dropdown is set to 'Global'. The 'Extends table' field is empty.

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. Give the details as:
Column label: Expense
Type: Integer
6. Double click on insert a new row again

7. Give the details as:
Column label: Family Member Name
Type: Reference
Max length :800
8. Double click on insert a new row again
9. Give the details as:
Column label: Comments
Type: String
Max length: 800
10. 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
In Default Value:
Use dynamic default: check the box
Dynamic default value: Get Next Padded Number
3. Click on Update.
4. Go to All >> In the filter search for Number Maintenance >> select Number Maintenance
5. Click on New.
6. Enter the below Details:
Table: Family Expenses
Prefix: MFE
7. Click on Submit.

Choice List Specification | Calculated Value | **Default Value**

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

Use dynamic default ☒

Delete Column | **Update**

< ≡ **Number** New record 🔗 ? ⚙️ ... **Submit**

* Table

Prefix

* Number

Application

Number of digits

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.
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.

Daily Expenses [u_daily_expenses]
2 Column

Number

Family Member Name

Date

Expense

1 Column

Comments

Milestone 6: Creation of Relationship

Activity 1: Creation of Relationship

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.

The screenshot shows the ServiceNow 'Relationship - New Record' form. The form fields are as follows:

- Name: Daily Expenses
- Application: Global
- Applies to table: Family Expenses [u_st_family_expenses]
- Queries from table: Daily Expenses [u_daily_expenses]

The script editor at the bottom contains the following code:

```

1 (function refineQuery(current, parent) {
2
3     // Add your code here, such as current.addQuery(field, value);
4
5 })(current, parent);

```

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
5. Write the below code >>
6. Go to the Header and right click there>> click on Save.

Business Rule
New record

Business 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	Application	Global
Table	Daily Expenses (u_daily_expenses)	Active	<input checked="" type="checkbox"/>
		Advanced	<input checked="" type="checkbox"/>

When to run

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

When: before

Order: 100

Filter Conditions: Add Filter Condition Add "OR" Clause

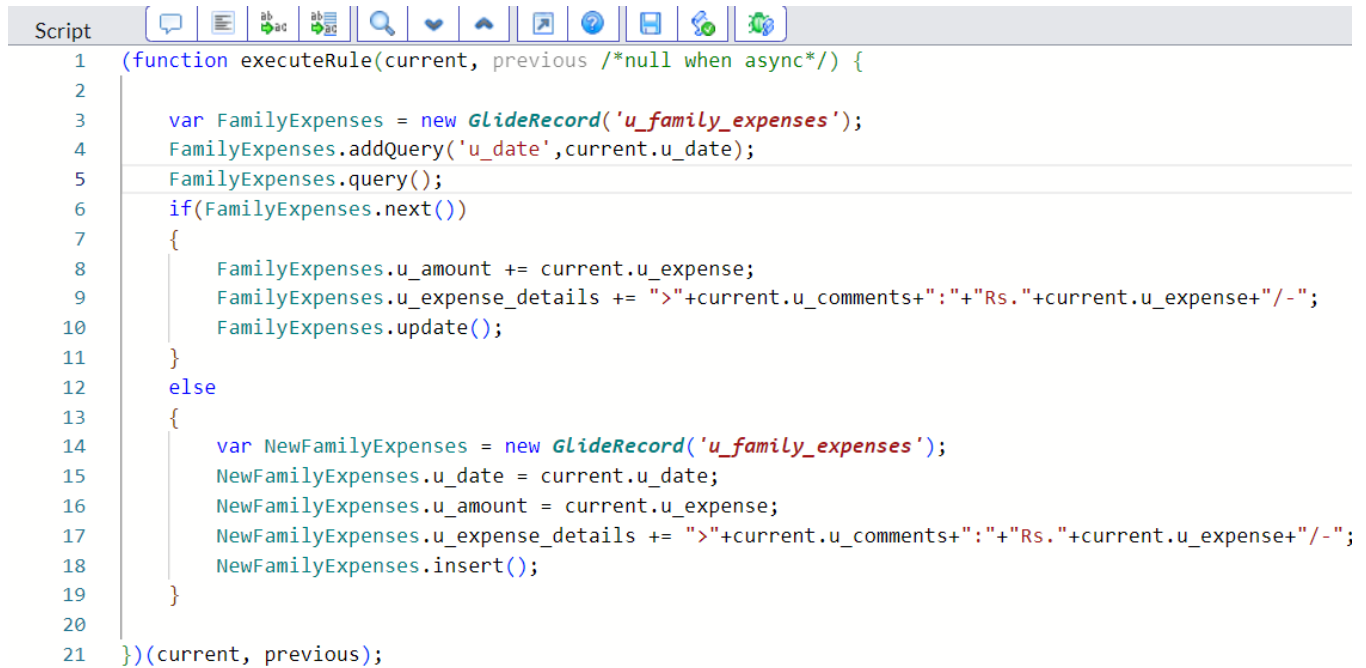
Role conditions:

Insert ☒

Update ☒

Delete ☐

Query ☐



```

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);

```

Milestone 9: Configure the Relationship

Activity 1: Configure the Relationship

1. Goto 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.
5. Click on Update.

Relationship
Daily Expenses

UpdateDelete

NameDaily Expenses

ApplicationGlobal

Advanced☐

Applies to tableFamily Expenses [u_family_expenses]

Queries from tableDaily 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);
```

UpdateDelete

Conclusion:

Creating and sticking to a family budget is your key to financial success. It provides clarity, helps you reach your goals, and prepares you for unexpected expenses. Family Budget means your projected income and expenditure during a predefined period. Cash flow statement measures your actual cash inflows and outflows in order to show you your net cash flow for a specific period of time.

