

Calculating Family Expenses Using Service Now

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Problem Statement

Many families struggle with managing their expenses, leading to financial stress and difficulties in achieving long-term financial goals. The lack of a systematic approach to tracking expenses makes it challenging for families to identify areas where they can cut back and allocate their resources more effectively.

Objective

The objective of this project is to design and develop a user-friendly application that helps families track and manage their expenses efficiently. The application aims to provide a clear picture of family expenses, enabling better financial decision-making and budgeting.

TASK INITIATION

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.

Activity 2: Creation Of New Update Set

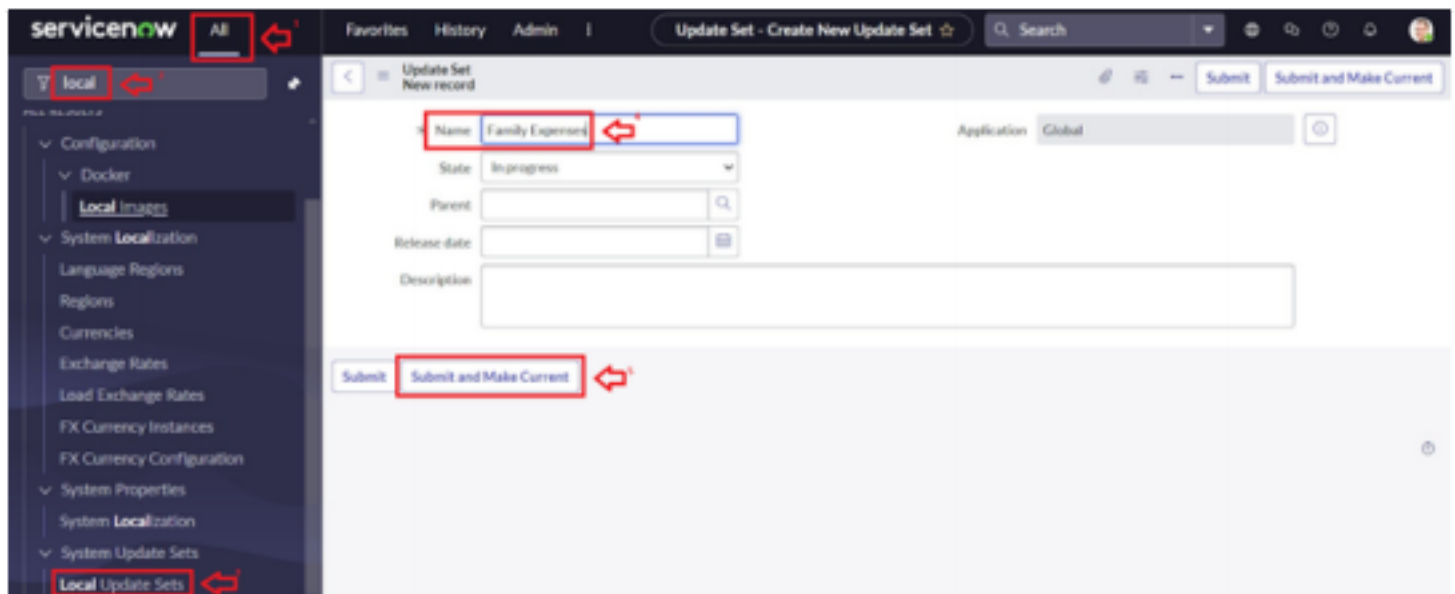
1. Go to All >> In the filter search for Local Update set > click on New.



1. Enter the Details as:

Name : Family Expenses

1. Then click on Submit and Make current.



Activity 3: Creation Of Table

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

* Label
 Application ⓘ

* Name
 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
✕ /	Number	String				false
✕ /	Date	Date				false
✕ /	Amount	Integer				false

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

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

1. Double click on insert a new row again
2. Give the details as:

Column label : Date

Type : Date

1. Double click on insert a new row again
2. Give the details as:

Column label : Amount

Type : Integer

1. Double click on insert a new row again
2. Give the details as:

Type : String

Max length : 800

Column label	Type	Reference	Max length	Default value	Display
Number	String				false
Date	Date				false
Amount	Integer				false
Expense Details	String		800		false

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

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

1. 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

Number MFE

Table: Family Expenses

Prefix: MFE

Number: 1,000

Application: Global

Number of digits: 7

Update Delete

1. Click on Submit.

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.

Family Expenses (u_family_expenses)

2 Column

Number

Date

Amount

Expense Details

1 Column

1. Make Number Read-Only Field by clicking on the gear icon and checking Read-Only
2. Make Date, Amount Mandatory Field by clicking on the gear icon and checking Mandatory
3. Click on Save.

Activity 4:Creation Of Table(Daily Expenses)

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

The image contains two screenshots of a software interface. The left screenshot shows a form with two input fields: 'Label' with the value 'Daily Expenses' and 'Name' with the value 'u_daily_expenses'. Both fields are highlighted with red rectangular boxes. Below these fields is an 'Extends table' field with a search icon. The right screenshot shows a form with a dropdown menu labeled 'Add module to menu' set to 'Family Expenditure'. This dropdown is highlighted with a red rectangular box. Above it are checkboxes for 'Create module' and 'Create mobile module', both of which are checked. The 'Application' field is set to 'Global'.

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

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

1. Double click on insert a new row again
2. Give the details as:

Column label : Date

Type : Date

1. Double click on insert a new row again
2. Give the details as:

Column label : Expense

Type : Integer

1. Double click on insert a new row again
2. Give the details as:

Column label : Family Member Name

Type : Reference

Max length : 800

1. Double click on insert a new row again
2. Give the details as:

Column label : Comments

Type : String

Max length : 800

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

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

1. 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**

1. Go to All >> In the filter search for Number Maintenance >> select Number Maintenance
2. Click on New.
3. Enter the below Details:

Table : Family Expenses

Prefix : MFE

1. Click on Submit.

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.

1. Make Number Read-Only Field by clicking on the gear icon and checking Read-Only
2. Make Date, Family Member Name Mandatory Field by clicking on the gear icon and

3. Click on Save.

Activity 5: Creation Of Relationship

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

1. Click Save

Activity 5: 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

Activity 6: 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

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 


Table: Daily Expenses (u.daily_expenses) 

Application: Global 

Active ☒

Advanced ☒

1. 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 

In Advance (we write the code):

```

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);

```

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

Activity 7: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.

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);

```

4. 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

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🌐

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

The Calculating Family Expenses project is a practical solution for families seeking to manage their finances more effectively. By providing a user-friendly interface for tracking expenses and generating reports, this application can help families make informed financial decisions and achieve their long-term goals. The project demonstrates the application of technical skills to real-world problems, making it a valuable learning experience for students.