**CALCULATING FAMILYEXPENSES USING SERVICE NOW**

**Team Id: NM2025TMID14234**

**Team Members:**

**Team Leader: PARTHASARATHY V**

**Team Member 1: MOHANRAJ S**

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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.

**Objective:**

1. **Automate Expense Tracking**

* Develop a ServiceNow application or workflow to automate the recording of monthly family expenses such as rent, groceries, utilities, education, transportation, etc.

2. **Create a Centralized Expense Database**

* Store all family expense data in a structured format within ServiceNow (using tables and records), ensuring easy access and retrieval.

3. **Categorize and Tag Expenses**

* Implement logic to categorize expenses into predefined groups (e.g., Fixed, Variable, Discretionary) to facilitate better budget analysis.

4. **Enable User Input via Form or Portal**

* Design a user-friendly interface (via ServiceNow forms or Service Portal) for users to input and update expenses regularly.

5. **Generate Monthly Reports & Dashboards**

* Create automated reports and real-time dashboards that summarize total expenses, category-wise breakdowns, and trends over time.

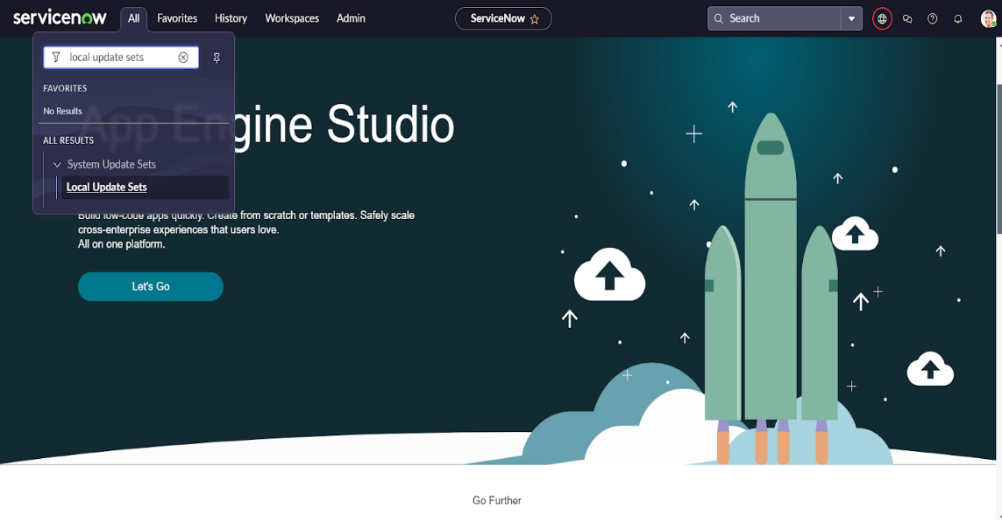
**Skills:**  IOT Open Hardware platforms,Data Structures.

**TASK INITIATION**

**Milestone 1 : Creation of New Update Set**

**Activity 1:** **Creation of New Update Set**

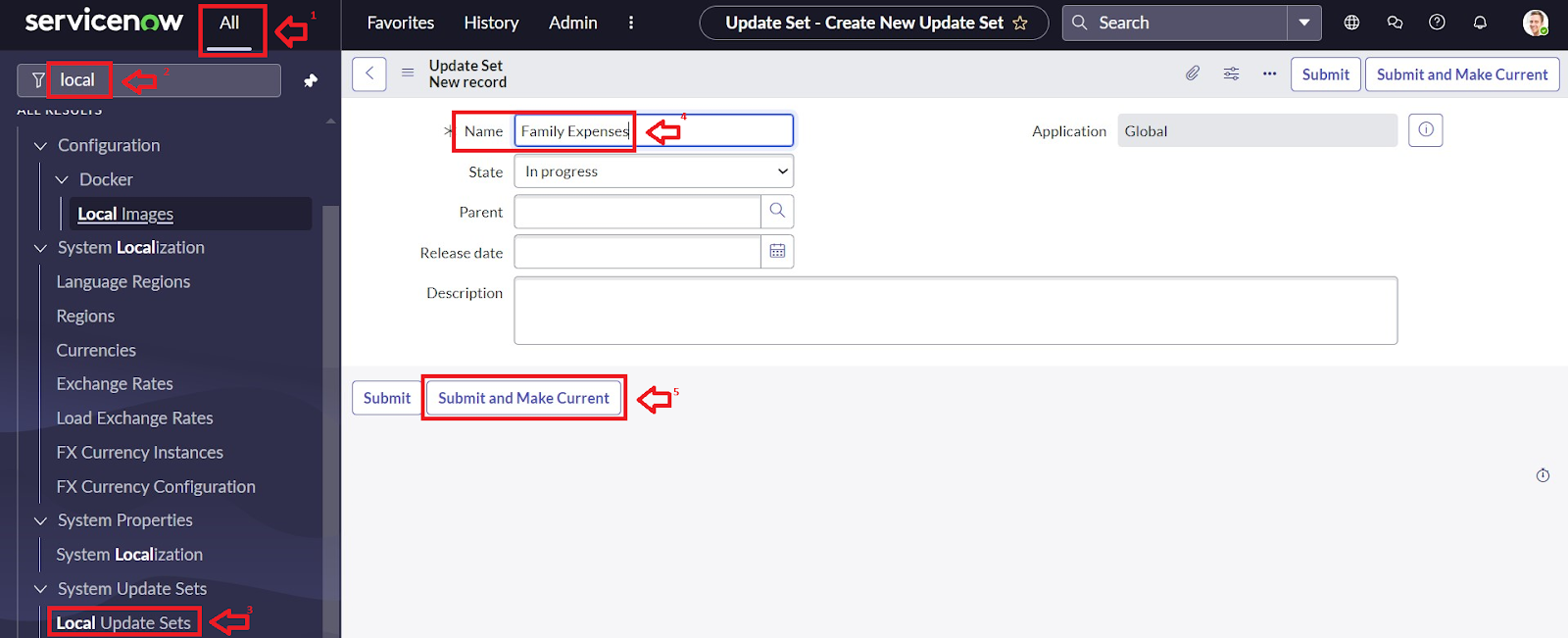
Go to All >> In the filter search for Local Update set > click on Ne



1. Enter the Details as:

Name : Family Expenses

2.Then click on Submit and Make current.



**Milestone 2 :** **Creation of Table**

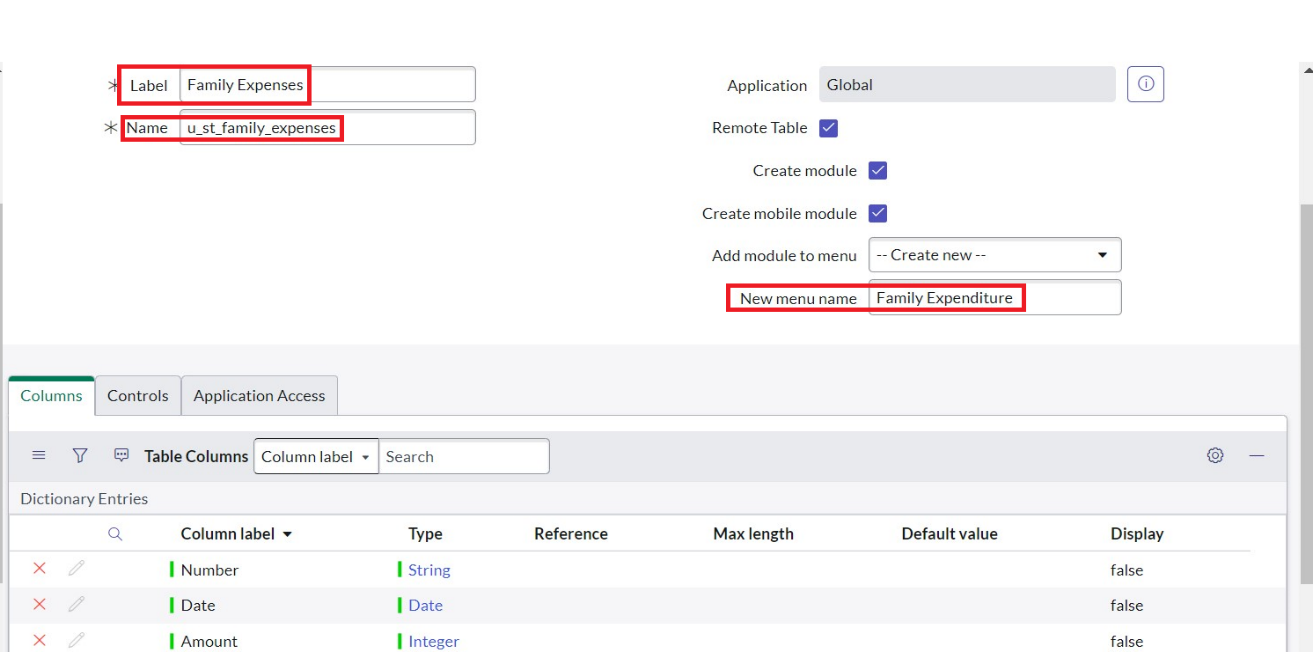
**Activity 1:** Creation of Family Expenses Table

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



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

### **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

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:

Column label : Expense Details

Type : String

Max length : 800



1. 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
3. In Default Value:

Use dynamic default : check the box

Dynamic default value : Get Next Padded Number

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

Table : Family Expenses

Prefix : MFE



1. Click on Submit.

### **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.



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.

### **Milestone 3 :** 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



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

### **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

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.

### **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

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

Table : Family Expenses

Prefix : MFE



1. Click on 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.



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 checking Mandatory
3. Click on Save.

### **Milestone 4 :** **Creation of Relationship**

### **Activity 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.

### **Milestone 5 :** Configuring Related List on Family Expense

### **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 6 :** 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



1. In when to run Check Insert and Update



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

### **Milestone 7 :** Configure the Relationship

### **Activity :** 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) {

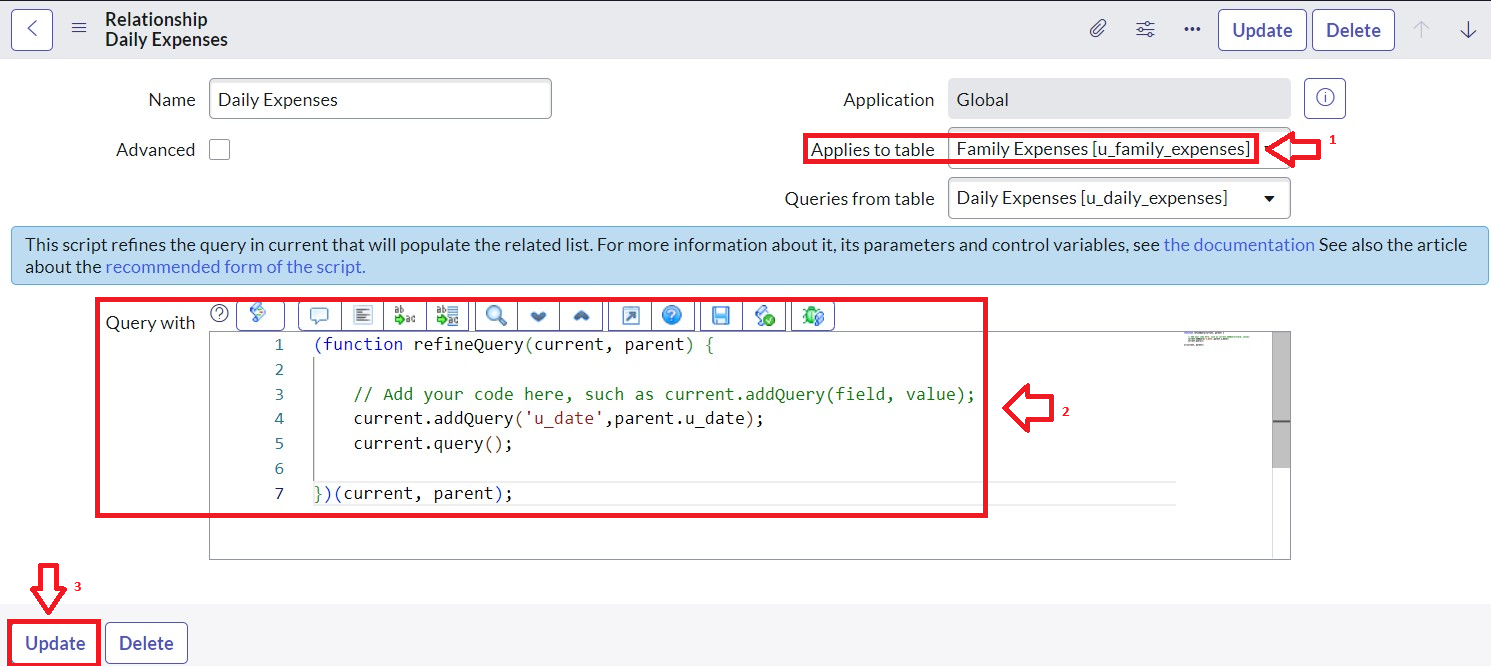
// Add your code here, such as current.addQuery(field, value);

current.addQuery('u\_date',parent.u\_date);

current.query();

})(current, parent);

1. Click on Update.



**Conclusion :**

Using ServiceNow to calculate and manage family expenses offers a structured and efficient approach to budgeting and financial tracking. By leveraging ServiceNow's automation, data management, and reporting capabilities, families can gain real-time insights into their spending patterns, categorize expenses, and set financial goals with greater accuracy. This integration not only enhances transparency and accountability but also promotes better financial planning within the household. As a versatile platform, ServiceNow proves to be a valuable tool beyond enterprise environments—offering practical applications in personal and family finance management.