

## CALCULATING FAMILY EXPENSES USING SERVICENOW

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Team Member : 4

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Problem Statement : Nil

**Objective :** The process of tracking and reporting on house hold spending to enable better finance decision making. By building a custom application you can leverage service now work flow and data management capabilities for a personal financial use case

**Skills :** IOT Open Hardware Platforms, Data Structures

### TASK INITIATION

#### Milestone 1 : Setting Up ServiceNow Instance

##### Activity 1 :

##### Setting Up ServiceNow Instance

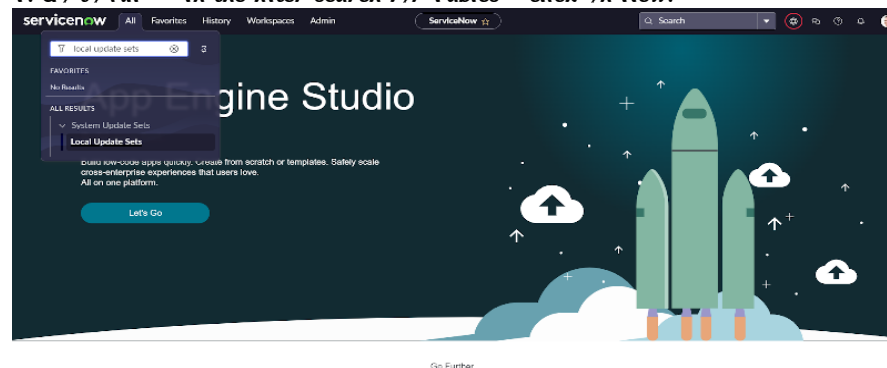
1. Sign up for a developer account on the ServiceNow Developer site "<https://developer.servicenow.com>".
2. Once logged in, navigate to the "Personal Developer Instance" section.
3. Click on "Request Instance" to create a new ServiceNow instance.
4. Fill out the required information and submit the request.
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 : Creation of New Update Set

##### Activity 2 :

##### Creation of New Update Set

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



Edit with WPS Office

2. Enter the Details as :  
Name : Family Expenses

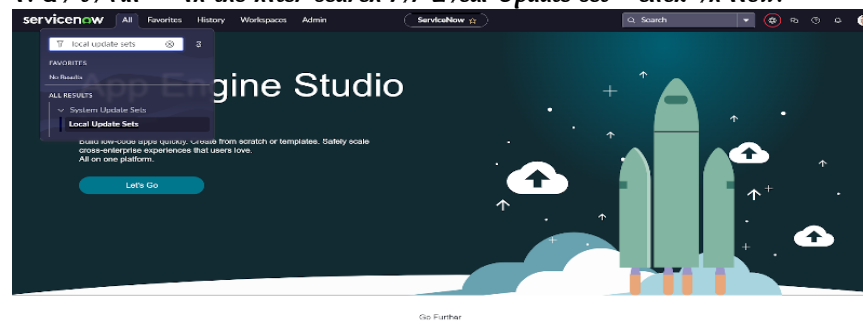
3. Then Click on submit and Make Current

The screenshot shows the ServiceNow interface for creating a new update set. The left sidebar shows the navigation menu with 'Local Update Sets' selected. The main form has the following fields: 'Name' (Family Expenses), 'State' (In progress), 'Parent' (empty), 'Release date' (empty), and 'Destination' (empty). The 'Submit and Make Current' button is highlighted with a red box.

## Milestone 3 : Creation of Table

### 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.

The screenshot shows the ServiceNow interface for creating a new update set. The left sidebar shows the navigation menu with 'Local Update Sets' selected. The main form has the following fields: 'Name' (Family Expenses), 'State' (In progress), 'Parent' (empty), 'Release date' (empty), and 'Destination' (empty). The 'Submit and Make Current' button is highlighted with a red box.

## Milestone 4: 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

The screenshot shows a configuration window for a new table. The 'Label' field is set to 'Family Expenses' and the 'Name' field is set to 'Auto-Populated'. The 'New menu name' field is set to 'Family Expenditure'. The 'Application' dropdown is set to 'Global'. The 'Generate table' checkbox is checked. The 'Generate module' checkbox is checked. The 'Generate module module' checkbox is checked. The 'Add module to menu' dropdown is set to 'Create new'. The 'New menu name' field is set to 'Family Expenditure'. Below the configuration fields, there is a table with the following columns: 'Column label', 'Type', 'Reference', 'Max length', 'Default value', and 'Display'. The table contains three rows: 'Number' (String), 'Date' (Date), and 'Amount' (Integer).

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

## Milestone 4 : Creation of Table

### 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

7. Double click on insert a new row again

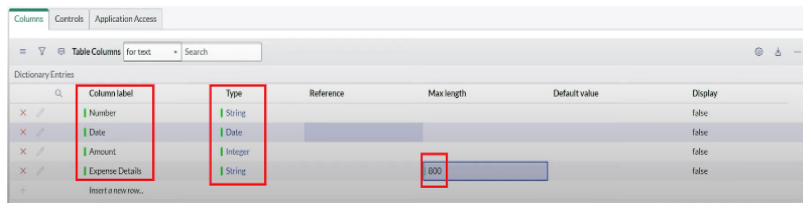
8. Give the details as:

Column label : Expense Details

Type : String

Max length : 800





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

## Milestone 4 : Creation of Table

### 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

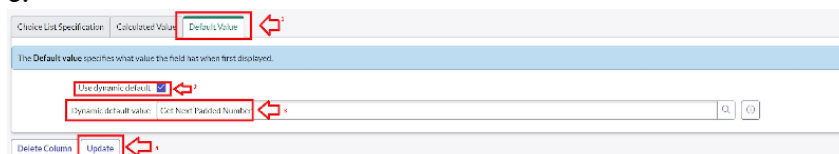
3. In Default Value:

Use dynamic default : check the box

Dynamic default value : Get Next Padded Number

4. Click on Update.

5.



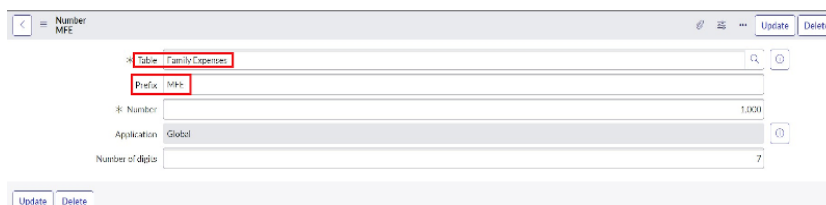
6. Go to All >> In the filter search for Number Maintenance >> select Number Maintenance

7. Click on New.

8. Enter the below Details:

Table : Family Expenses

Prefix : MFE



9. Click on Submit.



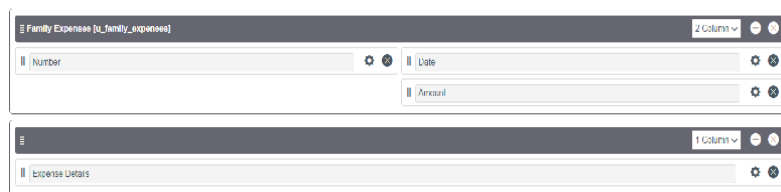
Edit with WPS Office

## Milestone 4 : Creation of Table

### 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. Take Date, Amount Mandatory Field by clicking on the gear icon and checking Mandatory
7. Click on Save.

## 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.

## Milestone 5 : Creation of Table (Daily Expenses )

### 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 : 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
11. Go to the Header and right click there>> click on Save.

### **Milestone 5 : Creation of Table (Daily Expenses)**

#### **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.



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

9. Click on Submit

## Milestone 5 : Creation of Tables (Daily Expenses)

### 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

## Milestone 6 : 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 **↖** New.

3. Enter the details:

Name : Daily Expenses

Applies to table : Select Family Expenses

Daily Expenses : Select Daily Expenses

4. Click Save.

## **Milestone 7 : Configuring Related List On Family Expenses**

### **Activity 1 :**

#### **Configuring Related List **↖** Family Expenses**

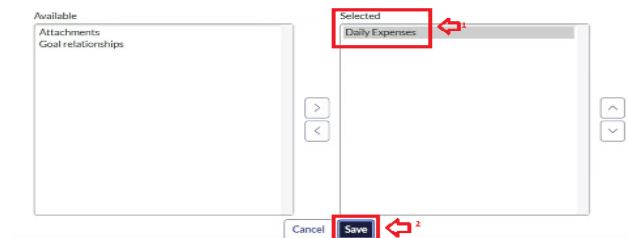
1. Go to All >> In the filter search for Family Expenses >> Open Family Expenses

2. Click **↖** New

3. Go to the Header and right click there>> click **↖** Configure >> Select Related Lists

4. Add Daily Expenses to the Selected Area.

5. Click **↖** Save



## **Milestone 8 : Creation of Business Rule**

### **Activity 1 :**

#### **Creation of Business Rule**

1. Go to All >> In the filter search for Business Rules.

2. Under System Definition Select Business Rules then click **↖** New.

3. Enter the Details:

Name : Family Expenses BR

Table : Select Daily Expenses

Check Advanced





Business Rule  
New record

This 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 ☒

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

When to run: ☒ Before ☐ After ☐ 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 -- -- operator -- -- value --

Rule 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);
```



```

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.

## Milestone 9 : Configure The Relationship

### Activity 1 :

#### 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

Application: Global

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 this 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

