

## **Calculating Family Expenses using ServiceNow**

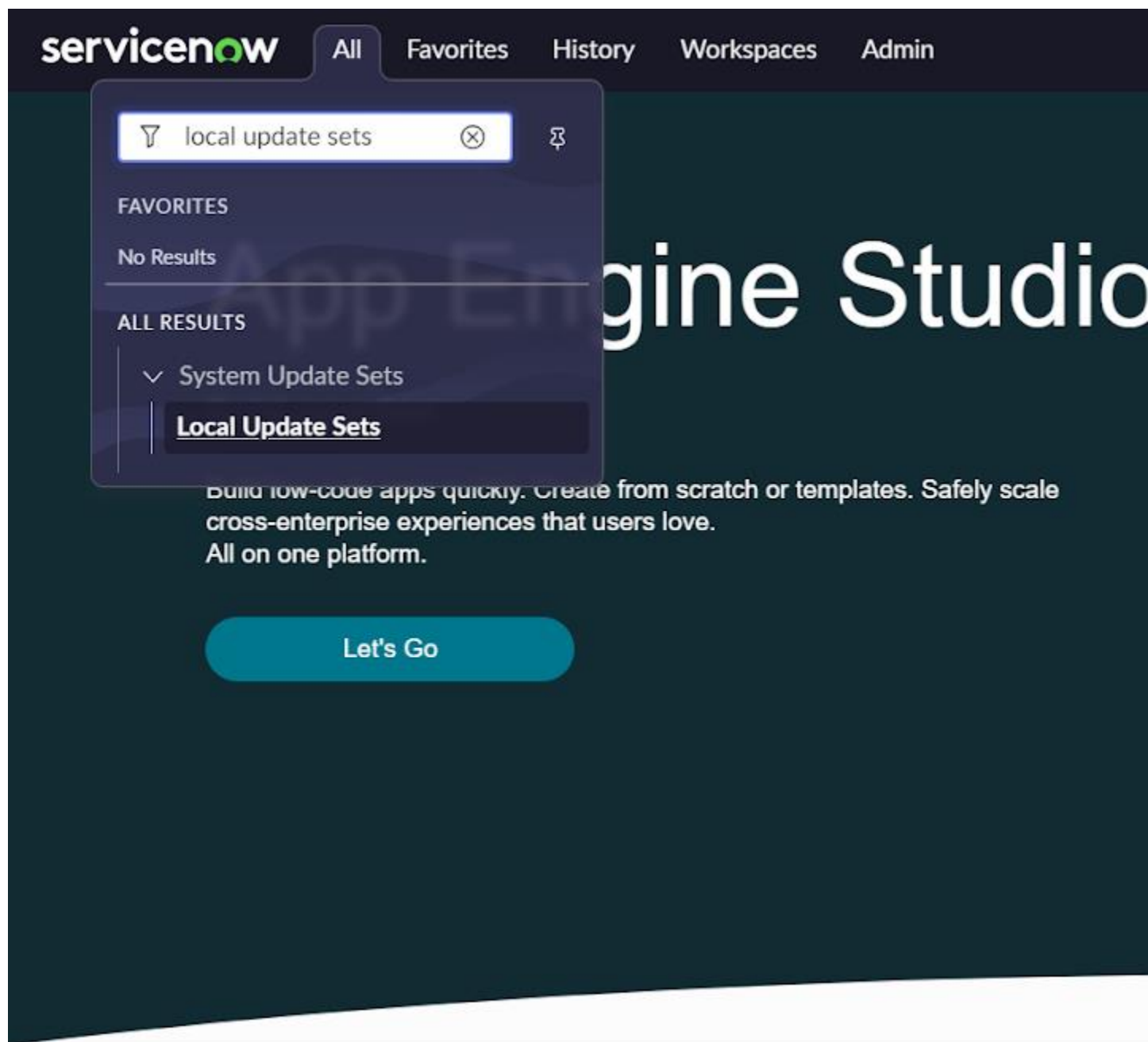
The project aims to develop a comprehensive expense calculation system using ServiceNow. This system will enable users to track and manage family expenses efficiently. It will include features such as expense categorization, budget setting, real-time tracking, and reporting capabilities. Utilizing ServiceNow's 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.

### **Setting up ServiceNow Instance**

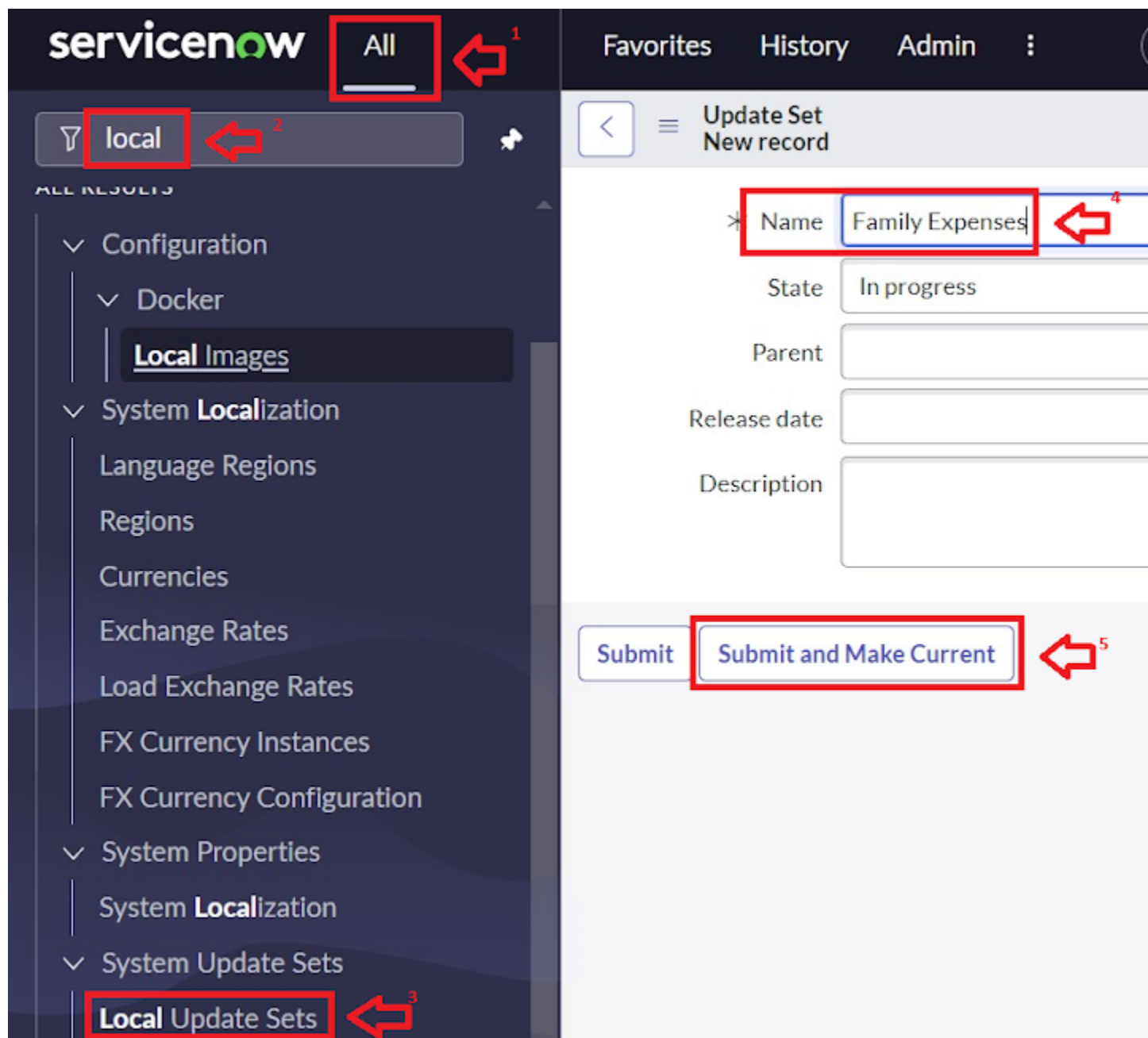
1. Sign up for a developer account on the ServiceNow Developer site "<https://developer.servicenow.com>".
2. Once logged in, navigate to the "Personal Developer Instance" section.
3. Click on "Request Instance" to create a new ServiceNow instance.
4. Fill out the required information and submit the request.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



## 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 Family Expenses

\* Name u\_st\_family\_expenses

| Columns Controls Application Access |   |        |         |  |
|-------------------------------------|---|--------|---------|--|
| Columns                             |   |        |         |  |
| Table Columns                       |   |        |         |  |
| Dictionary Entries                  |   |        |         |  |
| Column label ▼                      |   |        |         |  |
| Type                                |   |        |         |  |
| Referen                             |   |        |         |  |
| ✕                                   | ✎ | Number | String  |  |
| ✕                                   | ✎ | Date   | Date    |  |
| ✕                                   | ✎ | Amount | Integer |  |

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

| Columns   |                     |         |           |
|---|---------------------|---------|-----------|
| Controls  |                     |         |           |
| Application Access  |                     |         |           |
| <div> <div>Table Columns</div> <div>for text</div> <div>Search</div> </div> |                     |         |           |
| Dictionary Entries  |                     |         |           |
|   | Column label        | Type    | Reference |
| ✕ ✎   | Number              | String  |           |
| ✕ ✎   | Date                | Date    |           |
| ✕ ✎   | Amount              | Integer |           |
| ✕ ✎   | Expense Details     | String  |           |
| +   | Insert a new row... |         |           |

## 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.

The screenshot shows a software interface with three tabs: 'Choice List Specification', 'Calculated Value', and 'Default Value'. The 'Default Value' tab is selected and highlighted with a red box and a red arrow labeled '1'. Below the tabs, a blue informational bar states: 'The **Default value** specifies what value the field has when first displayed.' Below this, there is a checkbox labeled 'Use dynamic default' which is checked, highlighted with a red box, and pointed to by a red arrow labeled '2'. Underneath the checkbox is a text input field containing 'Get Next Padded Number', which is also highlighted with a red box and pointed to by a red arrow labeled '3'. At the bottom of the interface, there are two buttons: 'Delete Column' and 'Update'. The 'Update' button is highlighted with a red box and pointed to by a red arrow labeled '4'.

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

< ≡ Number  
MFE

\* Table Family Expenses

Prefix MFE

\* Number

Application Global

Number of digits

Update Delete

9. Click on Submit.

## 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.



The screenshot shows a software interface with two form sections. The top section has a dark header bar with the text "Daily Expenses [u\_daily\_expenses]". Below this, there are two input fields. The first field is labeled "Number" and the second is labeled "Date". To the right of each field is a gear icon, which is used to access field properties. The bottom section is a separate form area with a dark header bar and a single "Comments" text area at the bottom.

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.

### **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.

### **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

**When to run** Actions Advanced

Specify whether the business rule should run on **Insert** or **Update**. Use **Filter Cond**

When

Order

Filter Conditions

-- choose field --

Role conditions

5. In Advance(we write the code): Write the below code >>

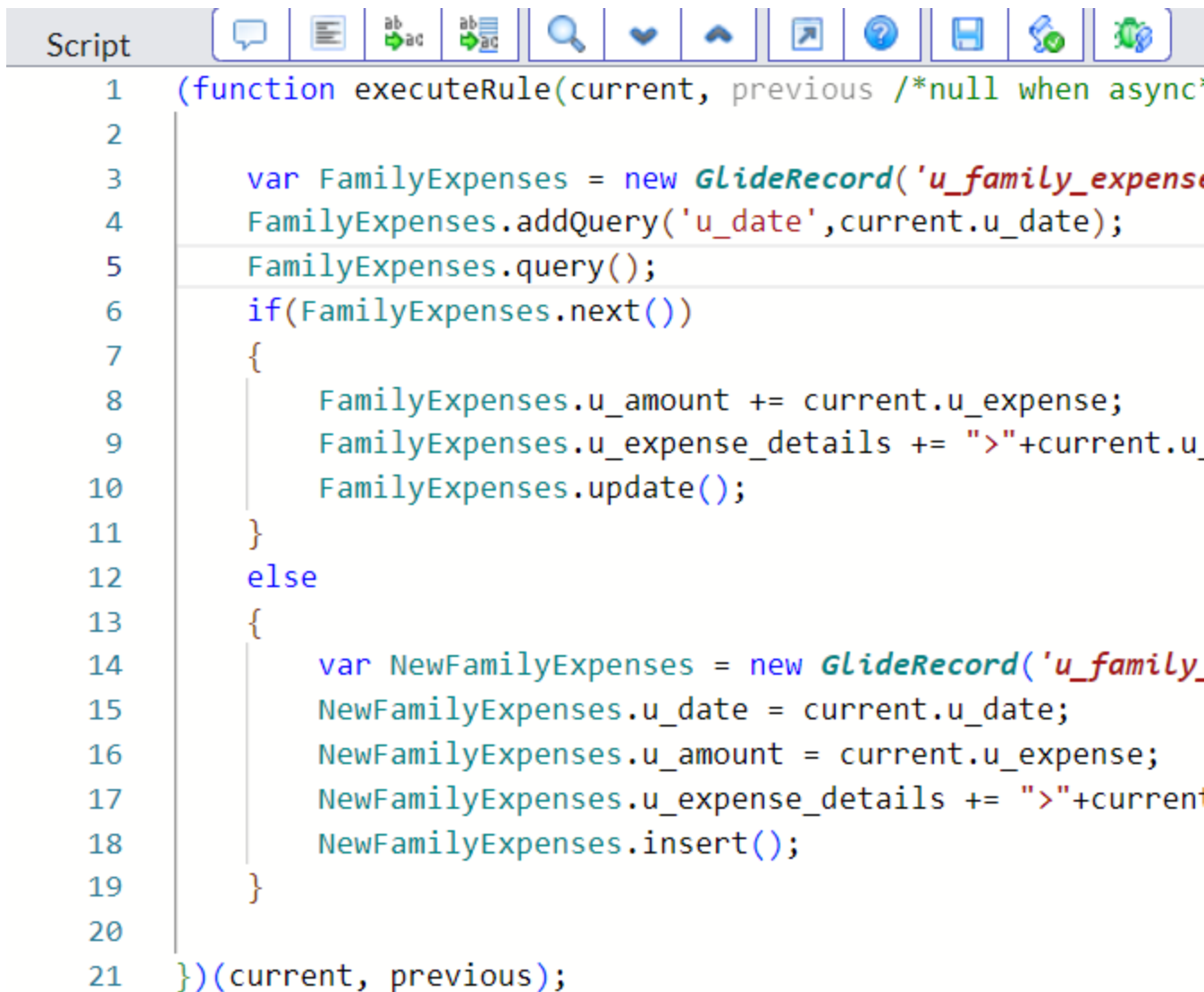
```

(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_expense...
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...
10         FamilyExpenses.update();
11     }
12     else
13     {
14         var NewFamilyExpenses = new GlideRecord('u_family...
15         NewFamilyExpenses.u_date = current.u_date;
16         NewFamilyExpenses.u_amount = current.u_expense;
17         NewFamilyExpenses.u_expense_details += ">"+current...
18         NewFamilyExpenses.insert();
19     }
20
21     })(current, previous);

```

6.

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

## Conclusion

In conclusion, implementing the "Calculation of Family Expenses Using ServiceNow" project offers numerous benefits to the household. By leveraging the robust capabilities of ServiceNow, family members can efficiently submit, track, and manage their expenses in a centralized and streamlined manner.