

# Calculating Family Expenses using Service Now

**Team Id: NM2025TMID18053**

**Team Members: 04**

**Team Leader: SELVA GNANAVEL S**

**Team Member 1 : NITHISHKUMAR M**

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**Problem Statement:** Manual tracking of family expenses is inefficient.

**Objective:** Automate expense calculation using ServiceNow

**Skills:** ServiceNow development, scripting, database handling.

## **TASK INITIATION**

Milestone 1 : **Setting Up ServiceNow Instance**

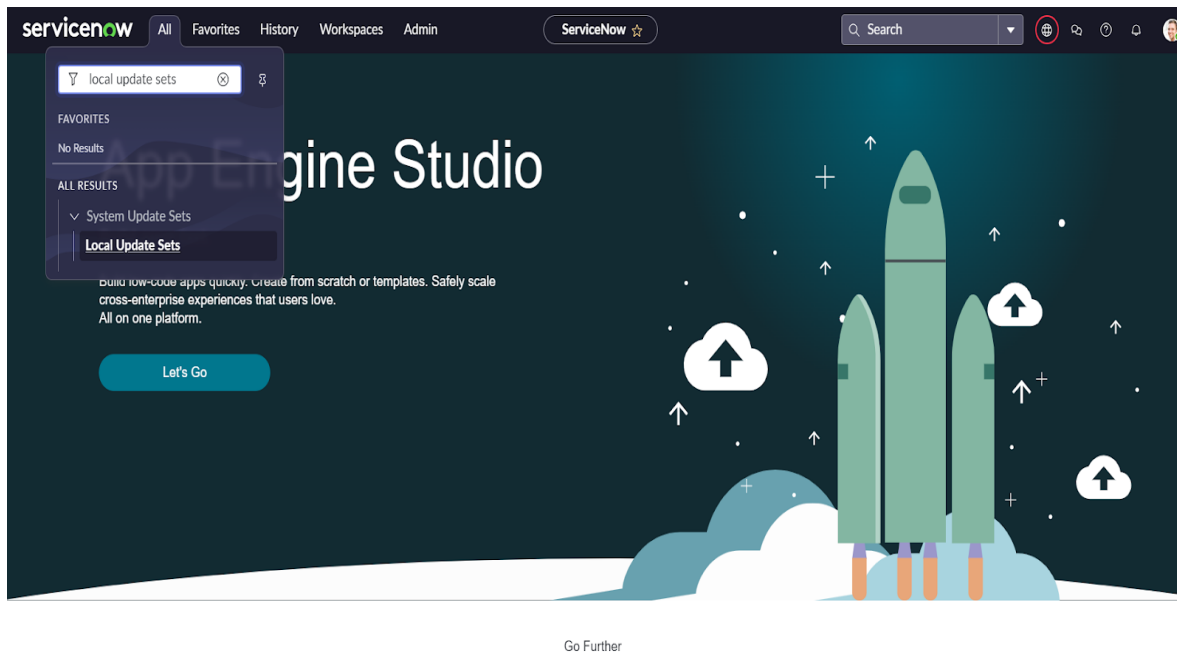
Activity 1: **Setting Up ServiceNow Instance**

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 1: **Creation Of New Update Set**

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

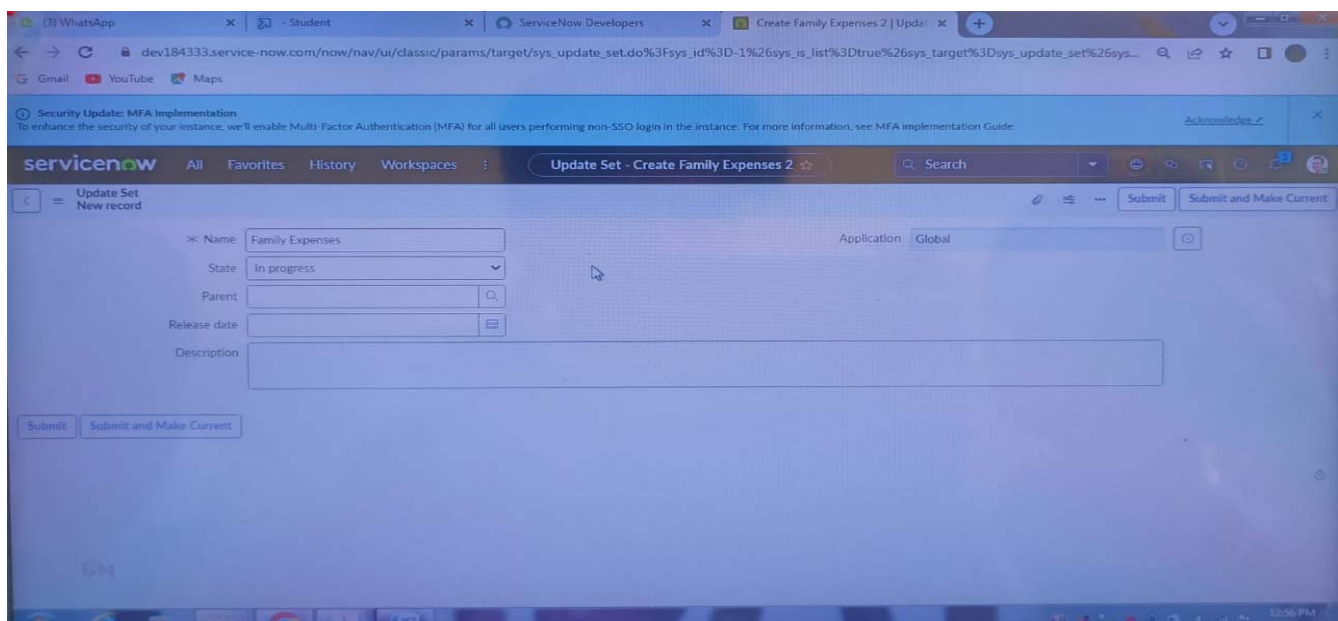
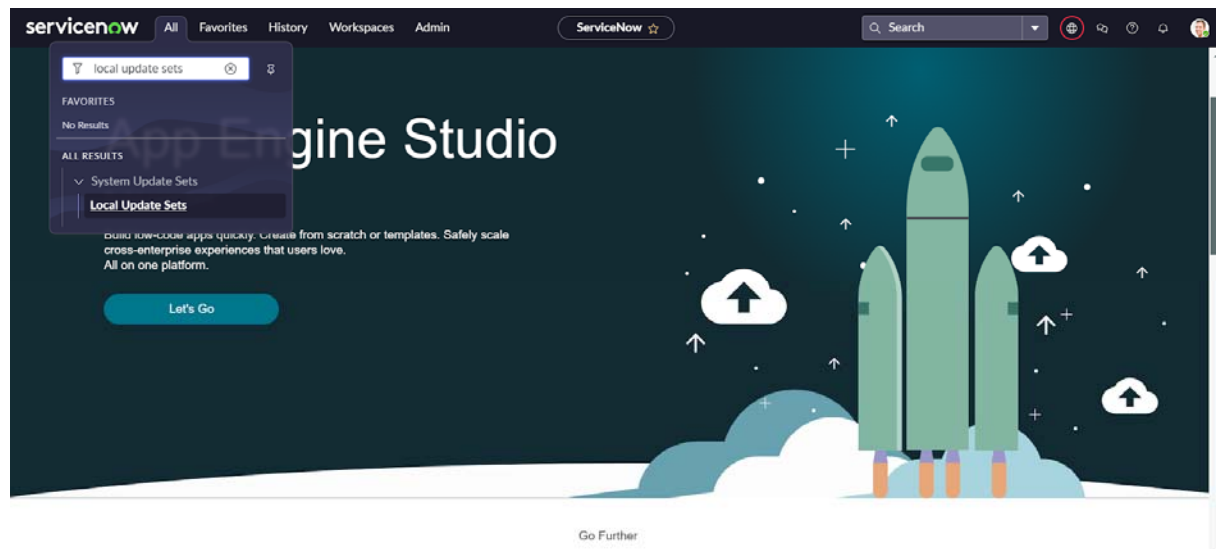


2. **Enter the Details as:**  
**Name : Family Expenses**
3. **Then click on Submit and Make current.**

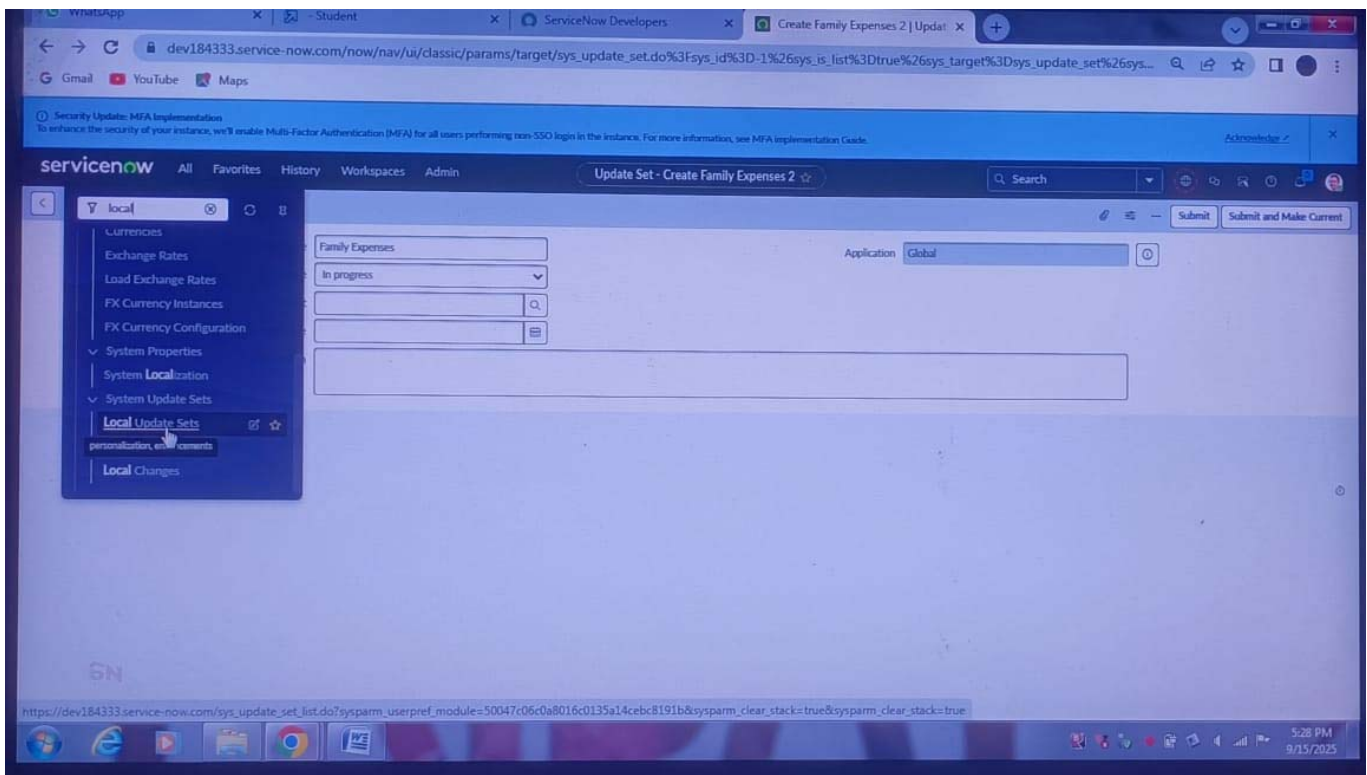
## Milestone 3 : **Creation Of Table**

## Activity 1: Creation Of New Update Set

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



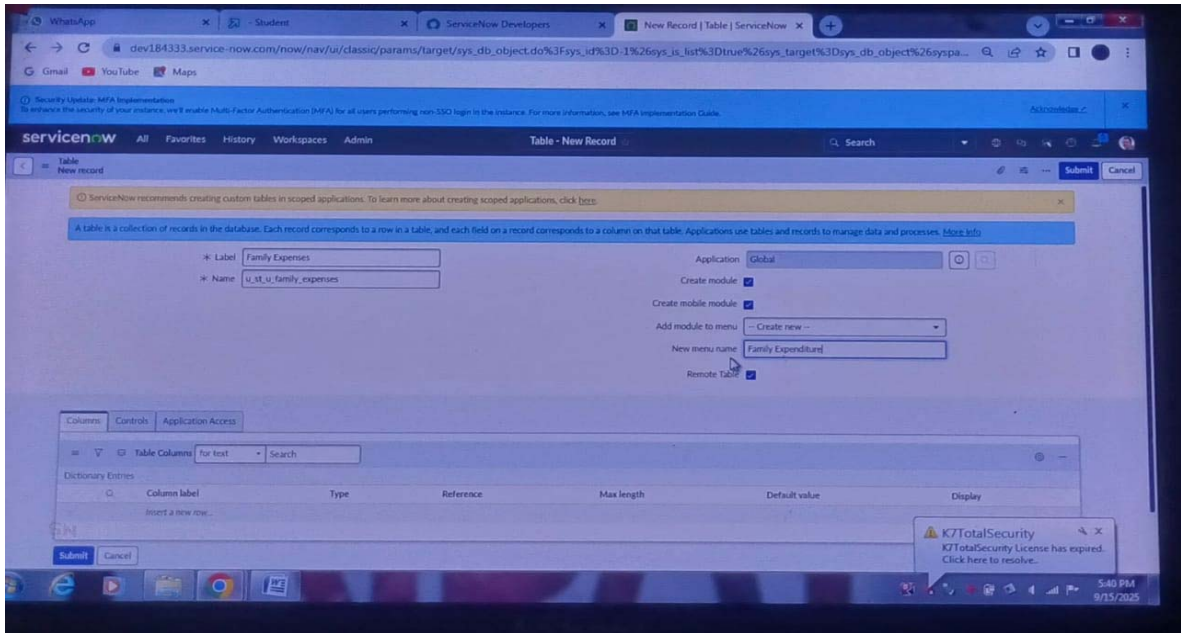
2. Enter the Details as:  
Name : Family Expenses
3. Then click on Submit and Make current.



## 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

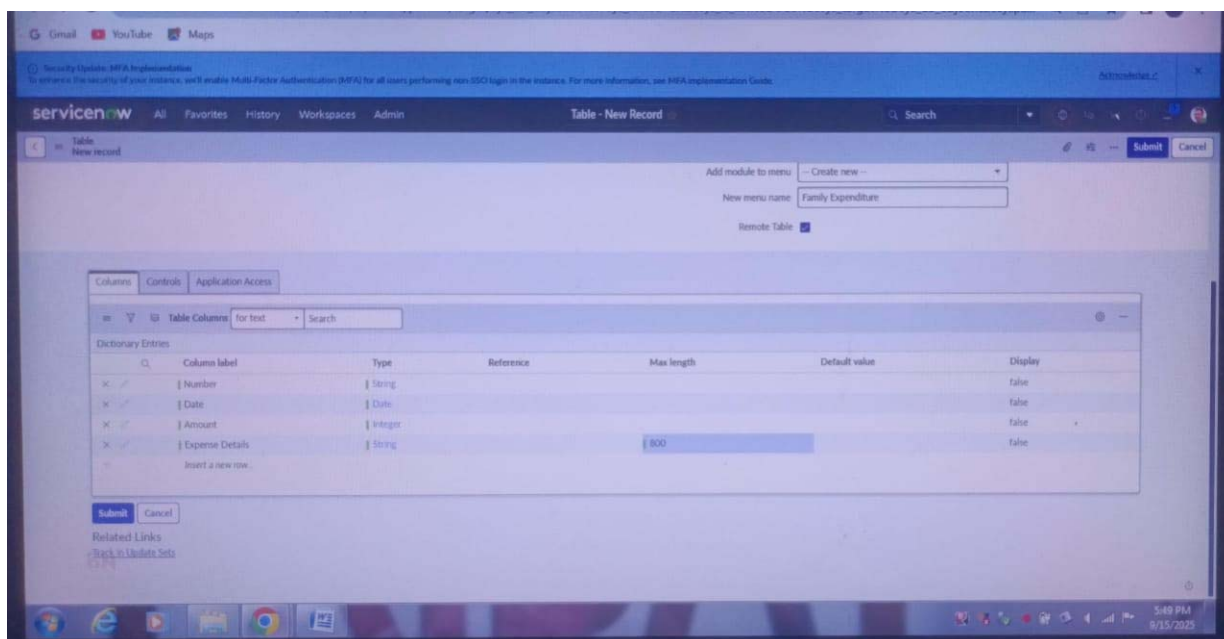


3. Go to the Header and right click there>> click on Save.

## Activity 2: Creation Of Columns(Fields)

1. Near Columns Double click near insert a new row.
2. Give the details as:
  - i. Column label : Number
  - ii. Type : String
3. Double click on insert a new row again
4. Give the details as:
  - i. Column label : Date
  - ii. Type : Date
5. Double click on insert a new row again
6. Give the details as:
  - i. Column label : Amount
  - ii. 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.



### 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:
  - a. Use dynamic default : check the box
  - b. Dynamic default value : Get Next Padded Number
4. 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:

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:
  - a. Table : Family Expenses
  - b. Prefix : MFE

ServiceNow | All | Favorites | History | Workspaces | Admin | Number - New Record

Number - New record

Table: Family Expenses

Prefix: MFE

Number: 1,000

Application: Global

Number of digits:

Submit

Related Links  
Show Counter

### 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.

The screenshot shows two panels of a form design interface. The top panel is titled 'Family Expenses [u\_family\_expenses]' and has a '2 Column' layout. It contains three input fields: 'Number', 'Date', and 'Amount'. Each field has a gear icon for configuration and a close icon. The bottom panel is titled 'Expense Details' and has a '1 Column' layout. It contains one input field labeled 'Expense Details', also with a gear icon and a close icon.

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.

## 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.

## Activity 2: Creation Of Columns(Fields)

1. Near Columns Double click near insert a new row.

2. Give the details as:

1. Column label : Number

2. Type : String

3. Double click on insert a new row again

4. Give the details as:

1. Column label : Date

2. Type : Date

5. Double click on insert a new row again

ServiceNow recommends creating custom tables in scoped applications. To learn more about creating scoped applications, click [here](#).

A table is a collection of records in the database. Each record corresponds to a row in a table, and each field on a record corresponds to a column on that table. Applications use tables and records to manage data and processes. [More info](#)

\* Label:

\* Name:

Extends table:

Application:

Create module: ☒

Create mobile module: ☒

Add module to menu:

New menu name:

Remote Table: ☐

Columns | Controls | Application Access

Table Columns for text

Dictionary Entries

Column label	Type	Reference	Max length	Default value	Display
Insert a new row...					

6. Give the details as:

1. Column label : Expense

2. Type : Integer

7. Double click on insert a new row again

8. Give the details as:

1. Column label : Family Member Name

2. Type : Reference

3. Max length : 800

9. Double click on insert a new row again



10. Give the details as:
1. Column label : Comments
  2. Type : String
  3. Max length : 800

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

### Activity 3: Making Number Field An Auto-Number

2. Double click on the Number Field/Column.
3. Go down and double click on Advanced view
4. In Default Value:
  1. Use dynamic default : check the box
  2. Dynamic default value : Get Next Padded Number
5. Click on Update.

- 6.
7. Go to All >> In the filter search for Number Maintenance >> select Number Maintenance
  8. Click on New.
  9. Enter the below Details:
    1. Table : Daily Expenses
    2. Prefix : DFE

The screenshot shows a 'Number New record' form. At the top, there is a 'Table' dropdown set to 'Daily Expenses' (annotated with a red box and arrow 1). Below it, the 'Prefix' is set to 'DFE' (annotated with a red box and arrow 2). The 'Number' field has a value of '1,000'. The 'Application' is set to 'Global'. The 'Number of digits' is set to '7'. At the bottom left, there is a 'Submit' button (annotated with a red box and arrow 3).

- 3.
4. 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.

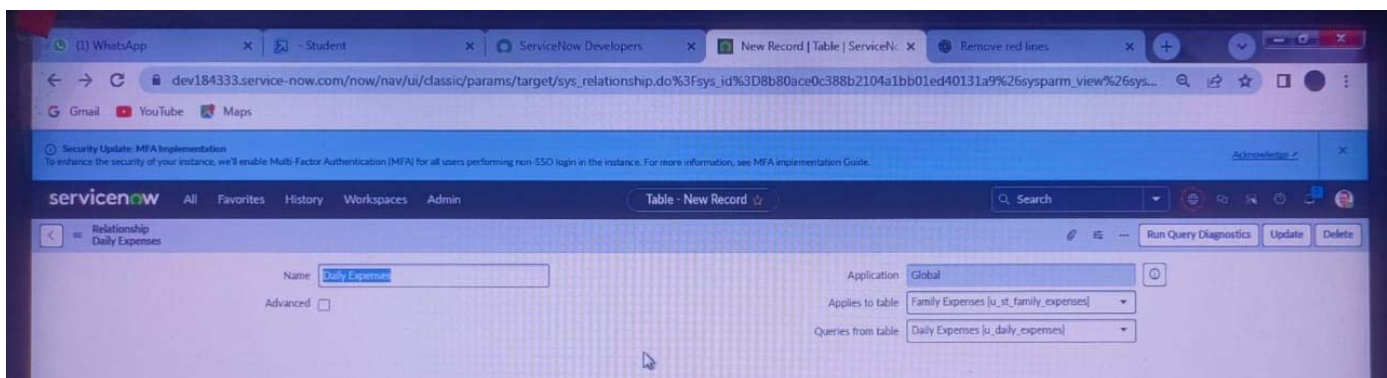
The screenshot shows the 'Daily Expenses [u\_daily\_expenses]' form design interface. The top section is a 2-column layout containing four fields: 'Number', 'Date', 'Family Member Name', and 'Expense'. Each field has a gear icon for configuration. Below this is a 1-column layout containing a 'Comments' field, also with a gear icon.

- 5.
6. Make Number Read-Only Field by clicking on the gear icon and checking Read-Only
7. Make Date, Family Member Name Mandatory Field by clicking on the gear icon and checking Mandatory
8. Click on Save.

#### Milestone 6 :Creation Of Relationship

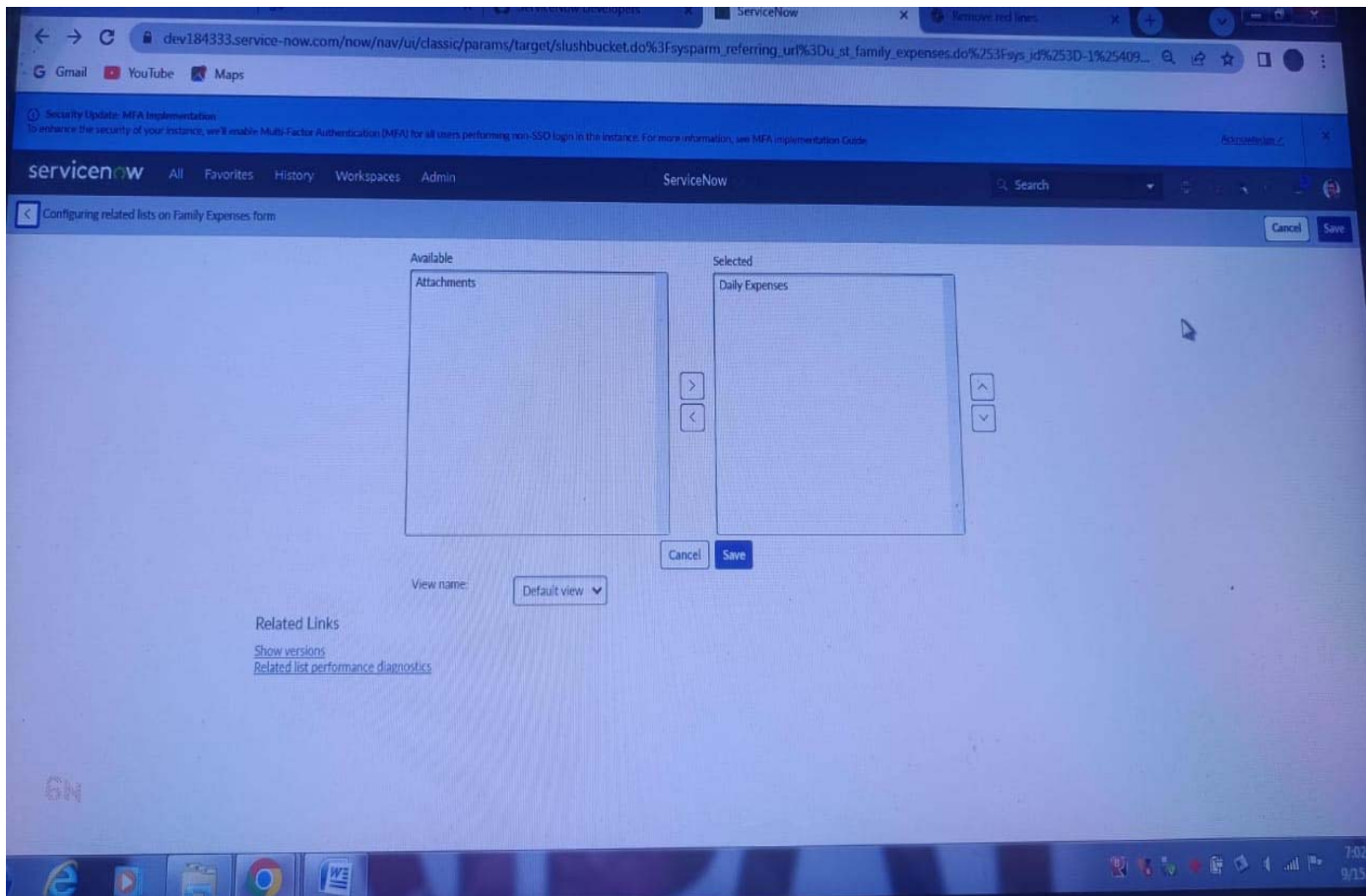
## Activity 1: Creation Of Relationship Between Family Expenses And Daily Expenses Tables

1. Go to All >> In the filter search for Relationships >> Open Relationships
2. Click on New.
3. Enter the details:
  1. Name : Daily Expenses
  2. Applies to table : Select Family Expenses
3. Daily Expenses : Select Daily Expenses
4. Click Save.



## Milestone 7:Configuring Related List On Family Expenses

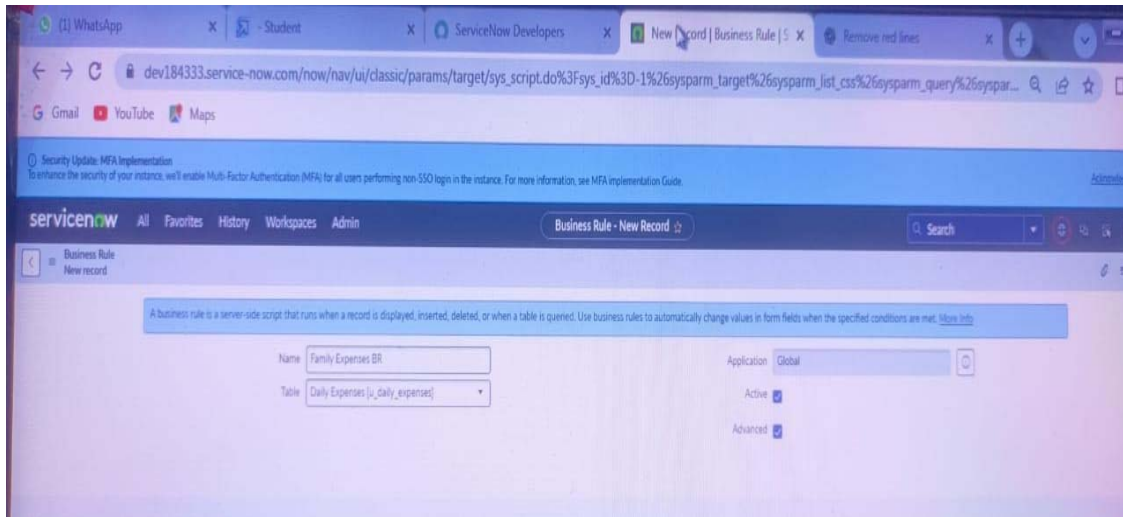
1. Go to All >> In the filter search for Family Expenses >> Open Family Expenses
2. Click on New
3. Go to the Header and right click there>> click on Configure >> Select Related Lists
4. Add Daily Expenses to the Selected Area.
5. Click on save.



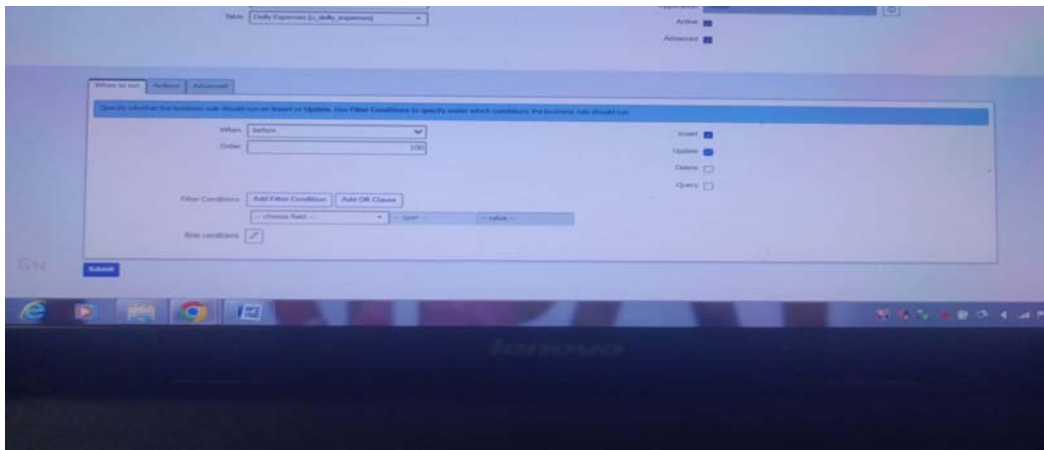
## Milestone 8:Creation Of Business Rules

### 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. 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();  
  }  
}
```

```

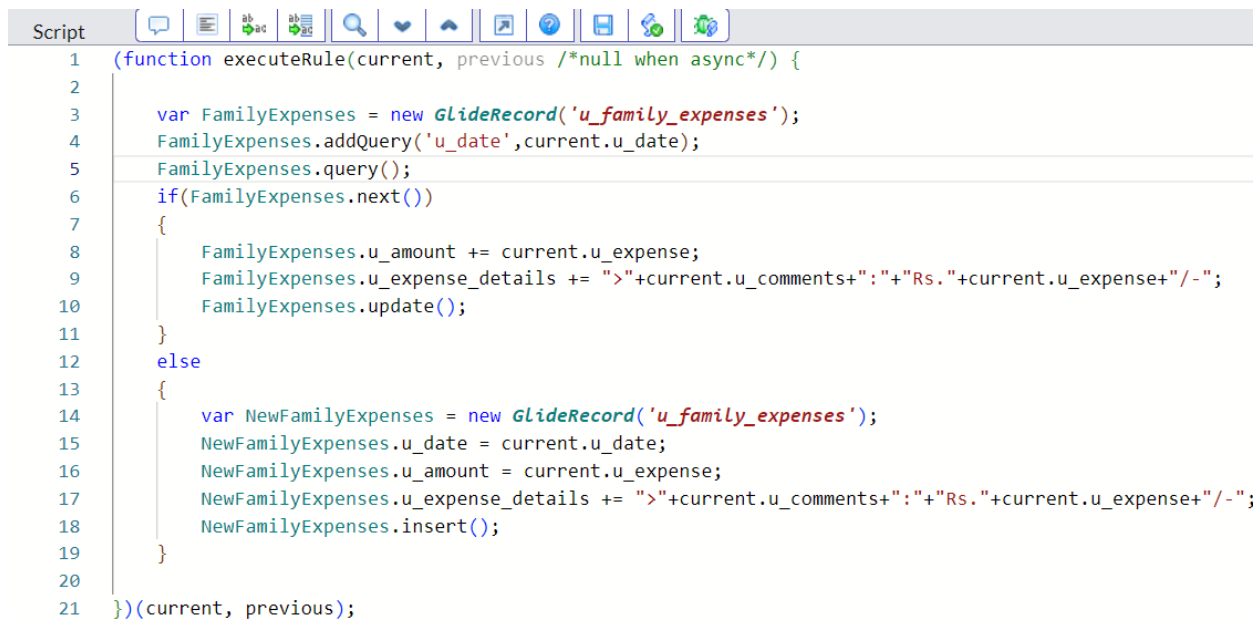
}
else
{
var NewFamilyExpenses = new GlideRecord('u_family_expenses');
NewFamilyExpenses.u_date = current.u_date;
NewFamilyExpenses.u_amount = current.u_expense;
NewFamilyExpenses.u_expense_details +=
">" + current.u_comments + ":" + "Rs." + current.u_expense + "/-";
NewFamilyExpenses.insert();
}

```

```

})(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

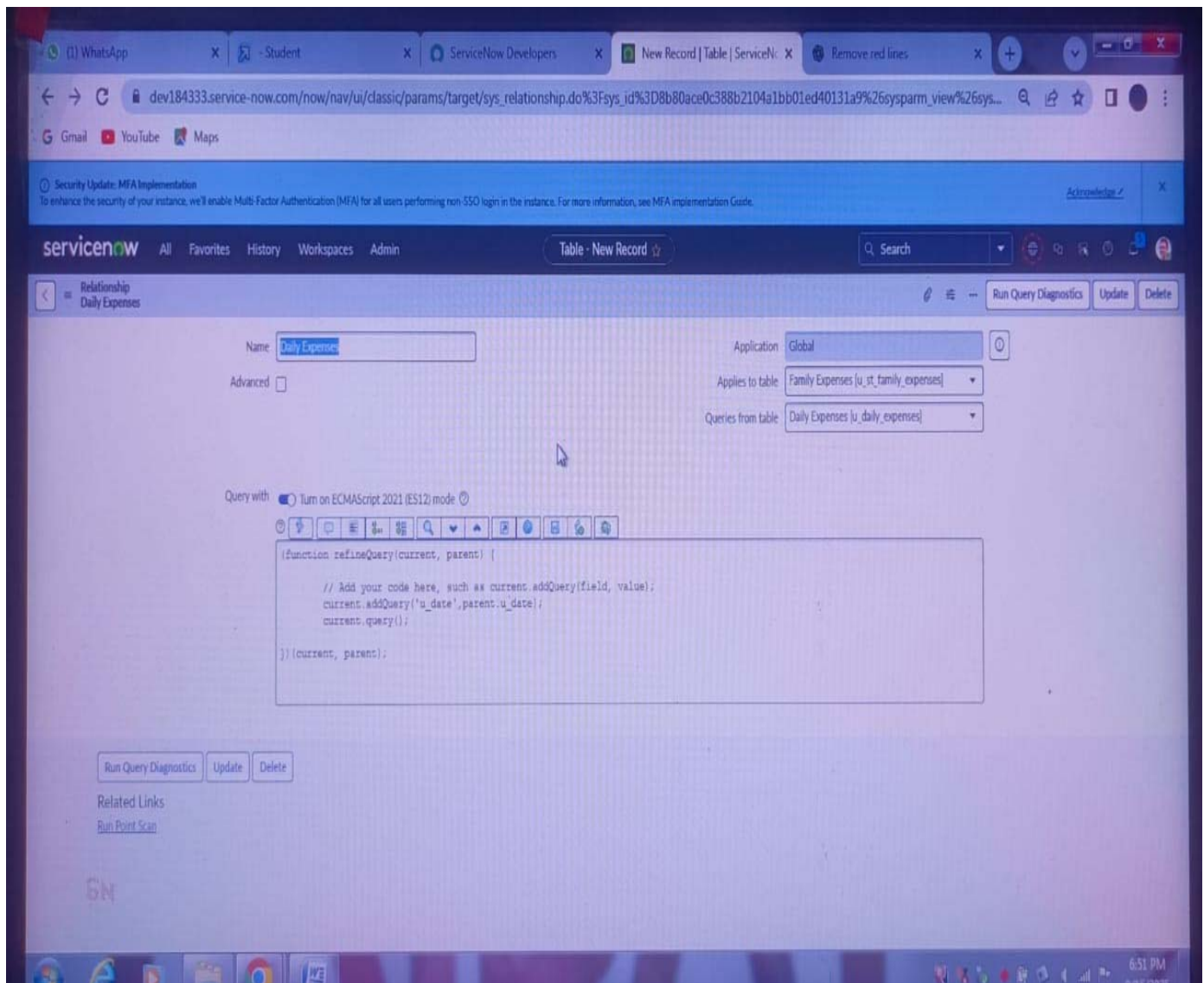
1. Go to All >> In the filter search for Relationships >> Open Relationships.
2. In that, open Daily Expenses Relationship.
3. For Applies to table : Select Family Expenses.



#### 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.



# Conclution

In conclusion, leveraging **ServiceNow** to calculate and manage family expenses provides a modern, efficient, and organized approach to personal financial management. By utilizing workflows, automation, and data visualization features within ServiceNow, families can gain real-time insights into their income and spending patterns. This not only simplifies budgeting but also promotes informed financial decisions and long-term savings. Ultimately, integrating ServiceNow for this purpose transforms a traditionally manual process into a streamlined and data-driven experience helping households maintain financial stability and transparency.

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