Calculating Family Expenses Using ServiceNow

Team ID: NM2025TMID15405

Team Members :

Team Leader: YUVASRI.M
Team Member: PATHMASRI.R
Team Member: UMA.S
Team Member: NAVINA.A

Problem Statement

The project aims to develop a comprehensive expense calculation system using ServiceNow. Managing Family expenses can be challenging due to scattered records, lack of categorization, and absence of real-time insights. This system will enable users to track, categorize, analyze and manage family expenses efficiently.

Objectives

- 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 goal is to empower users with the tools they need to make informed financial decisions and promote financial well-being within the family unit.

Skills

- Analytical Skills: Financial data analysis.

- Conceptual Skill :   IOT Open Hardware platforms (optional integration for smart tracking), Applying Data Structures for financial record-keeping.

# •Technical Skills: *Data handling and reporting with ServiceNow.*

TASK INITIATION

Milestone 1 : Setting up ServiceNow Instance

- Sign up for a developer account on the ServiceNow Developer site

    " https://developer.servicenow.com" .

- Once logged in, navigate to the "Personal Developer Instance" section.

- Click on 'Request Instance' to create a new ServiceNow instance.

- Fill out the required information and submit the request.

- You'll receive an email with the instance details once it's ready.

- Log in to your ServiceNow instance using the provided credentials.

- Now you will navigate to the ServiceNow.
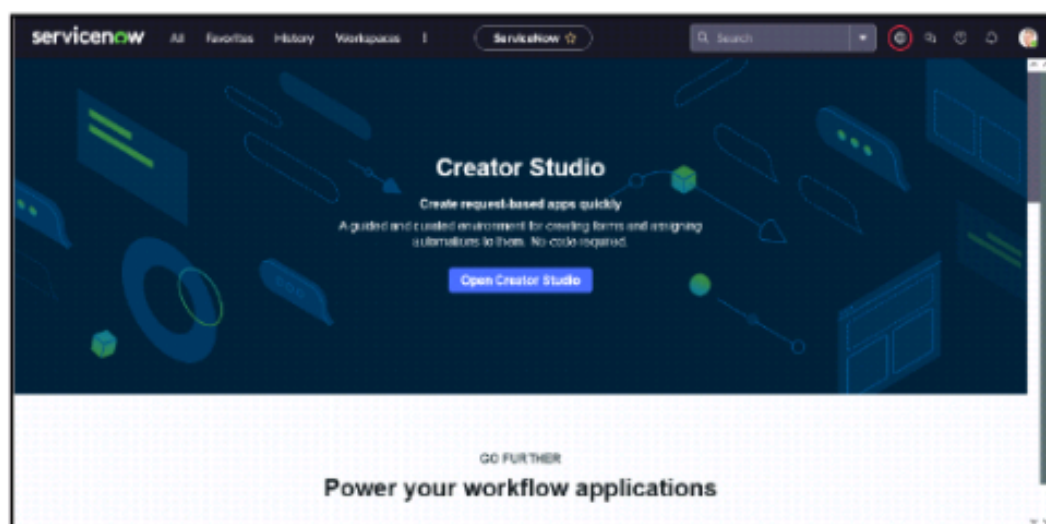
Milestone 2: Creation Of New Update Set

- Go to All >> In the filter search for Local Update set > click on New
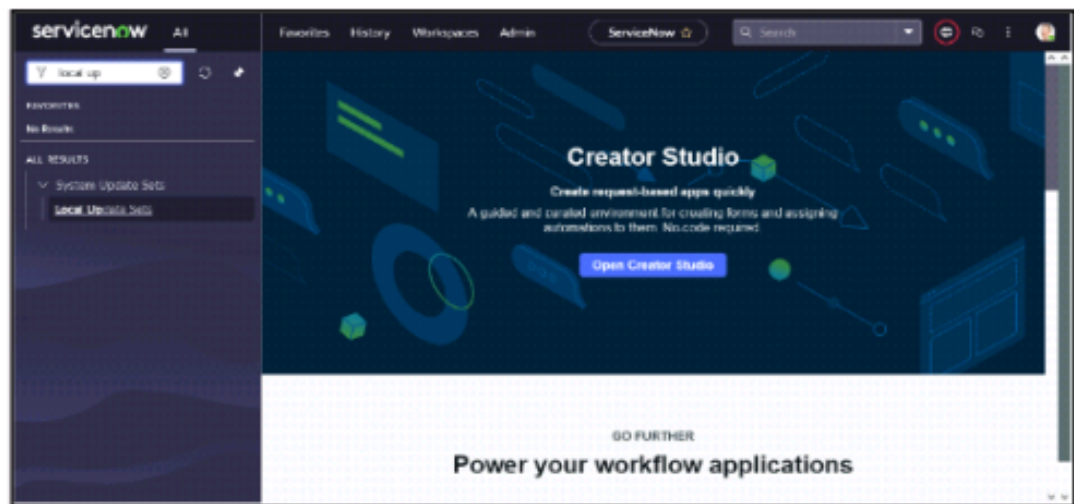
- Enter the Details as:

    Name : Family Expenses

- Then click on Submit and Make current.
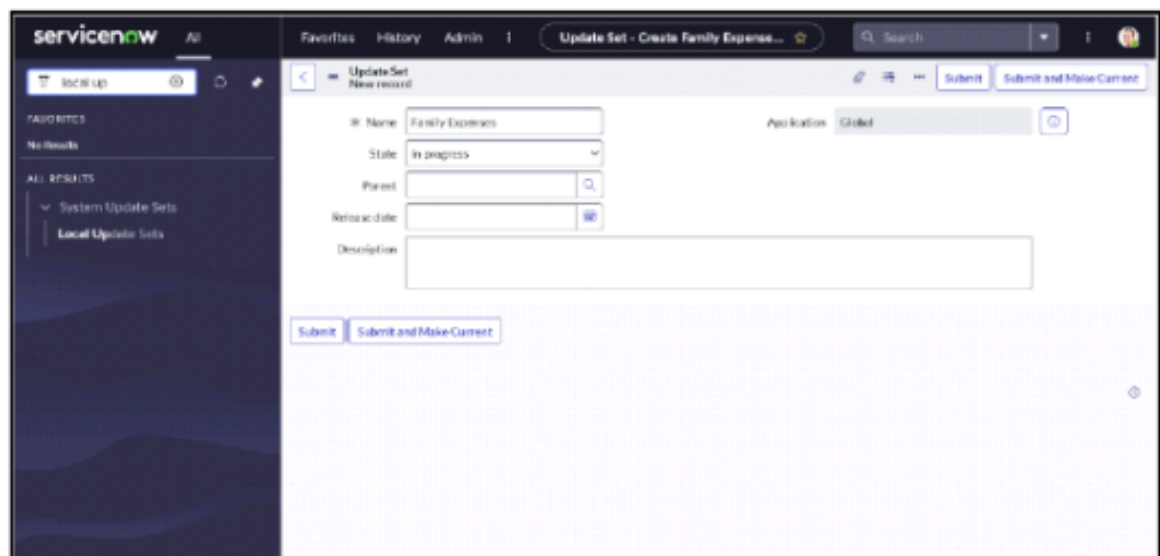
Milestone3: Creation of Table

Activity 1 : Creation of Family Expenses Table

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

- Enter the Details:

  Label : Family Expenses

  Name : Auto-Populated

  New menu name : Family Expenditure

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

Activity 2 : Creation of Columns (Fields)

- Near Columns Double click near insert a new row.

- Give the details as:

  Column label : Number

  Type : String

- Double click on insert a new row again

- Give the details as:

  Column label : Date

  Type : Date

- Double click on insert a new row again

- Give the details as:

  Column label : Amount

  Type : Integer

- Double click on insert a new row again

- Give the details as:

  Column label : Expense Details

  Type : String

  Max length : 800

- Go to the Header and right click there>> click on Save.
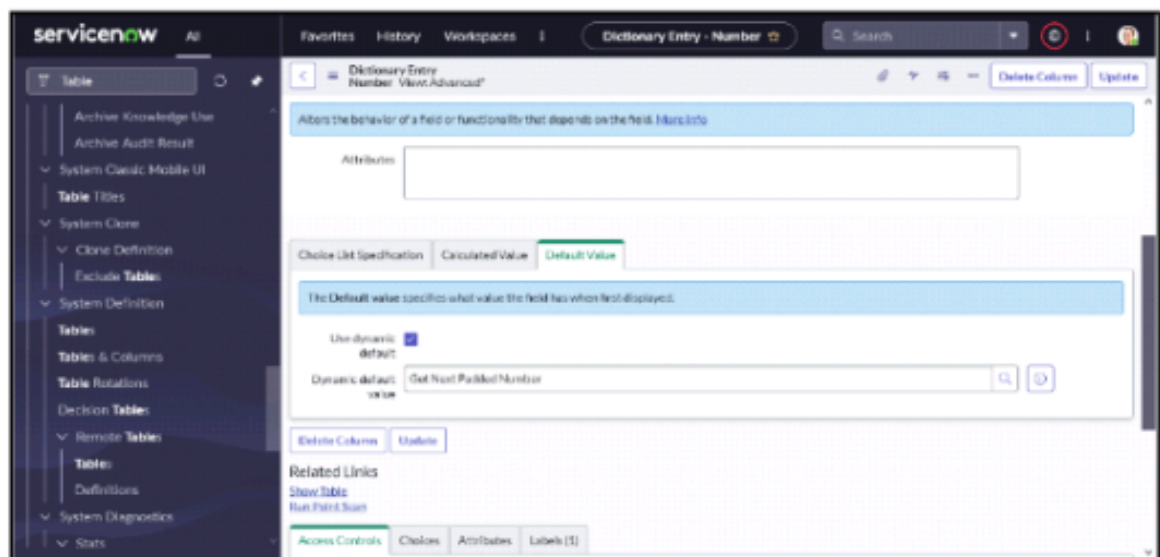
Activity 3 : Making Number Field an Auto-Number

- Double click on the Number Field/Column.

- Go down and double click on Advanced view

- In Default Value:

    Use dynamic default : check the box

    Dynamic default value : Get Next Padded Number

- Click on Update.

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

    NumberMaintenance

- Click on New.

- Enter the below Details:

Table : Family Expenses

Prefix : MFE

- Click on Submit.

Activity 4 : Configure the Form

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

  Expenses

- Click on New

- Go to the Header and right click there>> click on Configure >> Select

  Form Design

- Customize or Drag Drop the form as per your requirement.

- Make Number Read-Only Field by clicking on the gear icon and checking Read-Only

- Make Date, Amount Mandatory Field by clicking on the gear icon and checking Mandatory

- Click on Save.

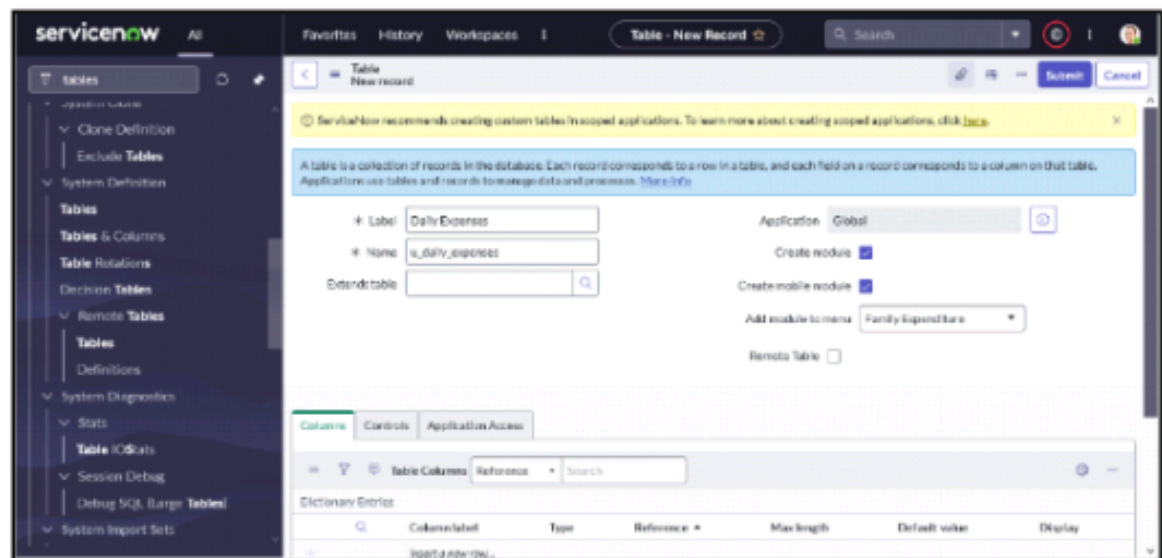## Milestone 4 : Creation of Table(DailyExpenses)

Activity 1: Creation of Table(Daily Expenses)

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

- Enter the Details:

  Label : Daily Expenses

  Name : Auto-Populated

  Add Module to menu : Family Expenditure

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

Activity2: Creation of Columns(Fields)

- Near Columns Double click near insert a new row.

- Give the details as:

    Column label : Number

    Type : String

- Double click on insert a new row again

- Give the details as:

    Column label : Date

    Type : Date

- Double click on insert a new row again

- Give the details as:

    Column label : Expense

Type : Integer

- Double click on insert a new row again

- Give the details as:

  Column label : Family Member Name

  Type : Reference
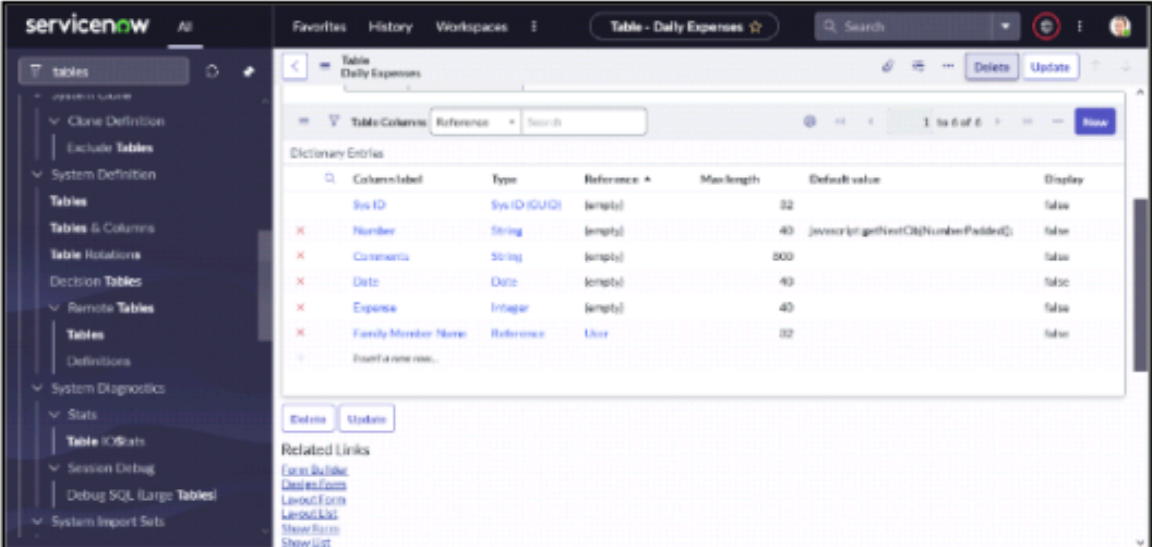
  Reference:User

  Max length : 32

- Double click on insert a new row again

- Give the details as:

  Column label : Comments

  Type : String

  Max length : 800

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

Activity 3: Making Number Field an Auto-Number

- Double click on the Number Field/Column.

- Go down and double click on Advanced view

- In Default Value:

    Use dynamic default : check the box

    Dynamic default value : Get Next Padded Number

- Click on Update.

- Go to All >> In the filter search for Number Maintenance >> select NumberMaintenance

- Click on New.

- Enter the below Details:

    Table : Daily Expenses

    Prefix : DFE

- Click on Submit.

Activity 4 : Configure the Form

- Go to All >> In the filter search for Daily Expenses >> Open Daily

  Expenses

- Click on New

- Go to the Header and right click there>> click on Configure >> Select

  Form Design

- Customize or Drag Drop the form as per your requirement.

- Make Number Read-Only Field by clicking on the gear icon and checking Read-Only

- Make Date, Family Member Name Mandatory Field by clicking on the gear icon and checking Mandatory

- Click on Save.

Milestone 5: Creation of Relationship

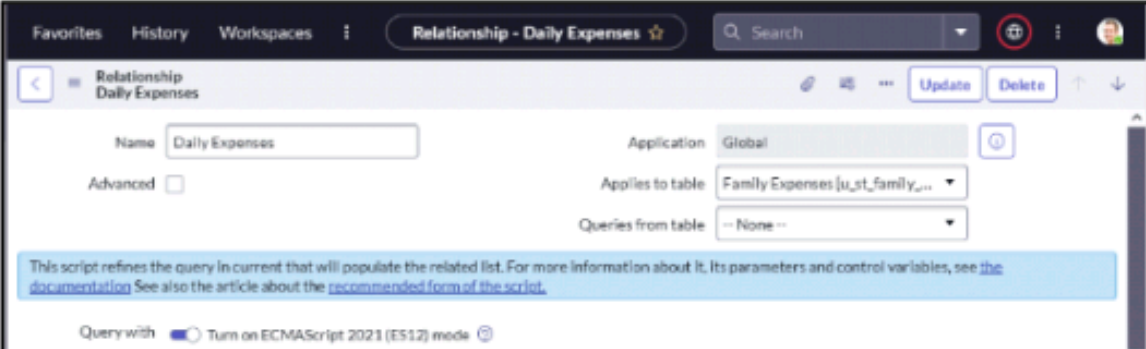### Activity: Creation of Relationship between Family Expenses and Daily Expenses tables

- Go to All >> In the filter search for Relationships >> Open Relationships

- Click on New.

- Enter the details:

  Name : Daily Expenses

  Applies to table : Select Family Expenses

- Click Save.

Milestone 6: Configuring Related List on Family Expenses

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

Expenses

- Click on New

- Go to the Header and right click there>> click on Configure >> Select

  Related Lists

- Add Daily Expenses to the Selected Area.

- Click on Save
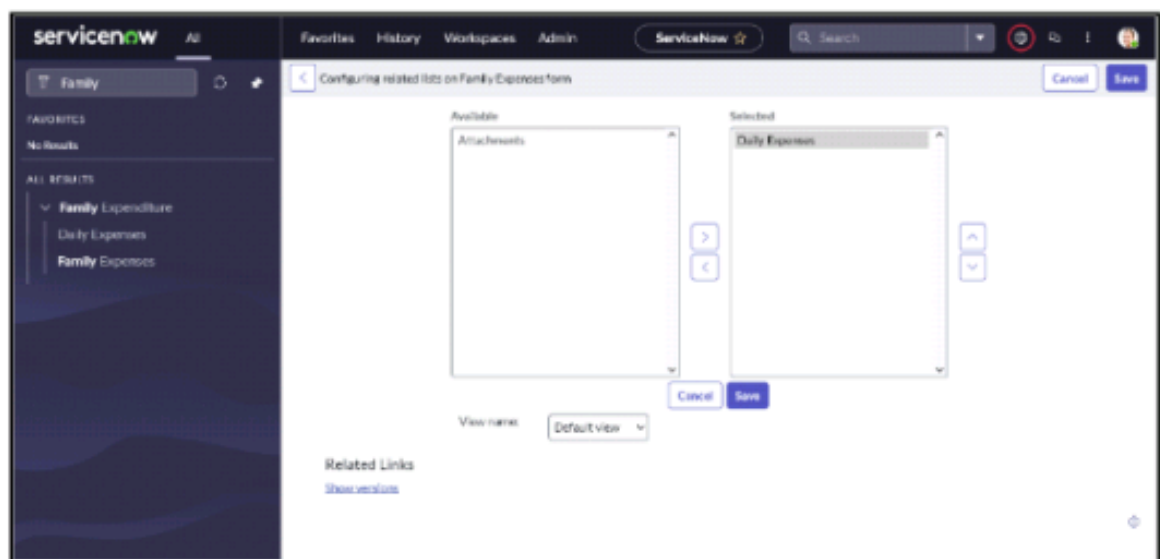
Milestone 7: Creation of Business Rules

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

- Under System Definition Select Business Rules then click on New.

- Enter the Details:

  Name : Family Expenses BR

  Table : Select Daily Expenses

  Check Advanced
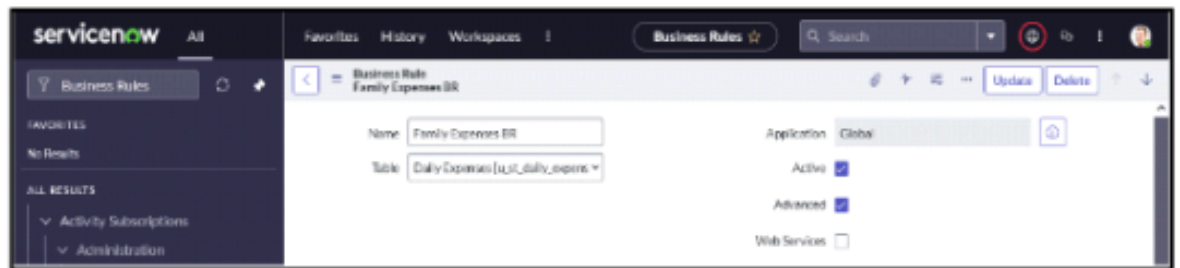
- In when to run Check Insert and Update.
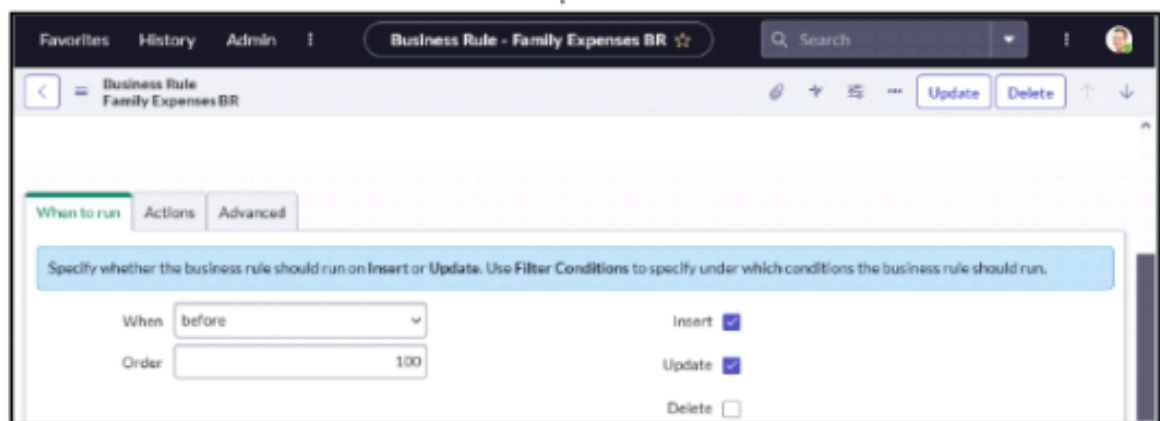
- In Advance(we write the code): Write the below code >>

```
(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())

{

Fam ilyExpenses.u_am ount += 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  [icons]
  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);
```
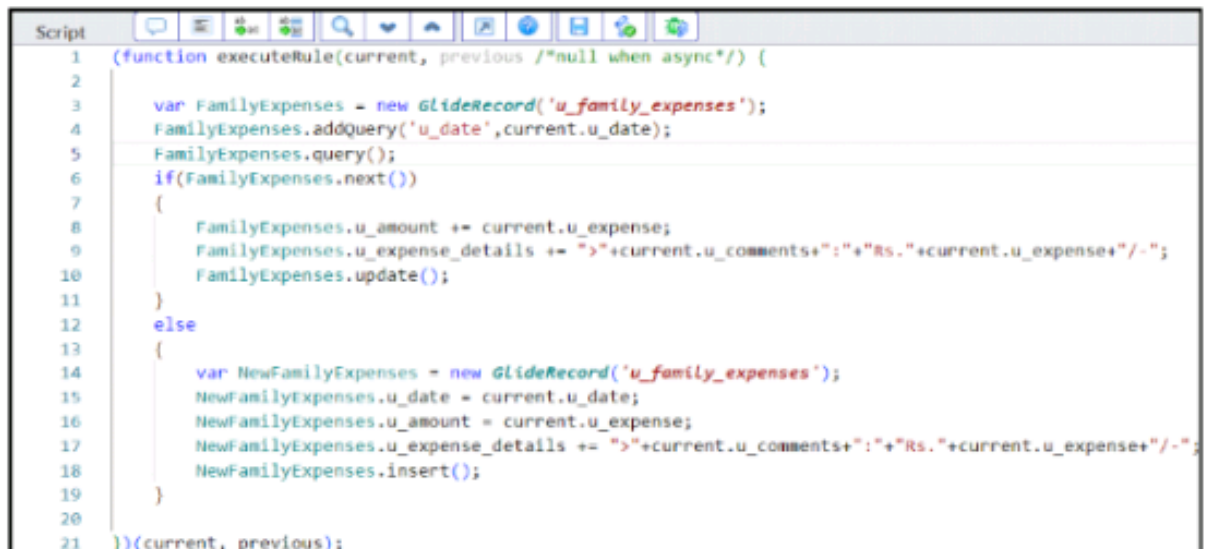
6.   Go to the Header and right click there>> click on Save.

Milestone 8: Configure the Relationship

- Go to All >> In the filter search for Relationships >> Open Relationships.

- In that, open Daily Expenses Relationship.

- For Applies to table : Select Family Expenses.

- In Query with : write the below Query.
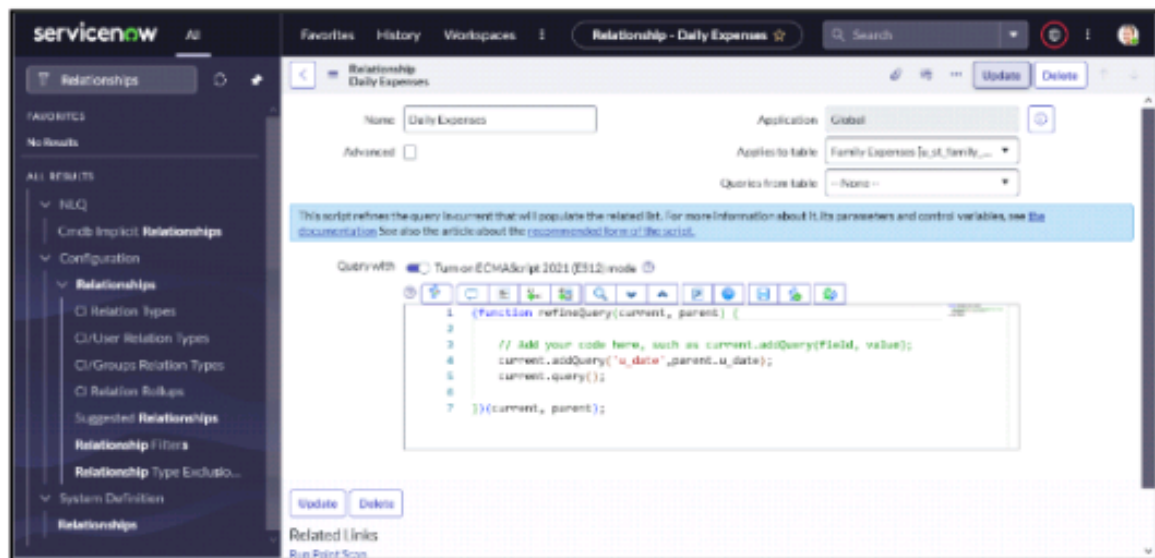
```
(function refineQuery(current, parent) {



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

current.addQuery('u_date',parent.u_date);

current.query();
```

```
})(cu rren t, pa re n t);
```

- Click on Update.

Conclusion

The Project demonstrates how ServiceNow can be effectively adapted for personal financial management by building a scalable, automated expense tracking system. It not only simplifies day-to-day expense management but also supports long-term financial planning.

By leveraging ServiceNow's robust features, families can gain better control over their finances, avoid unnecessary overspending , and make smarter financial decisions, ultimately enhancing financial well-being.