Calculating Family Expenses Using ServiceNow

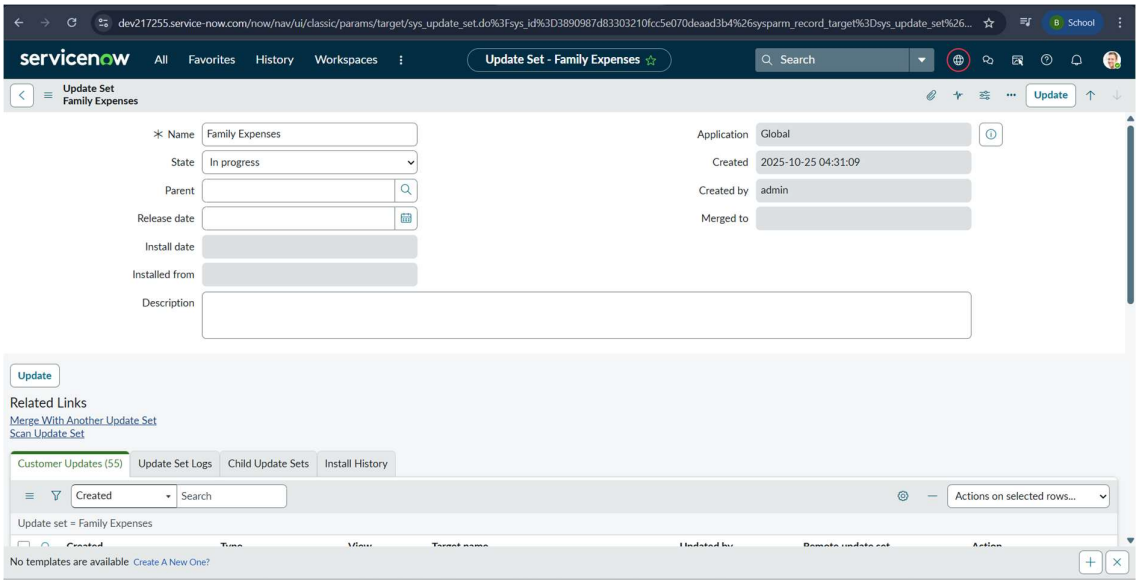
Problem statement:

Manually managing family expenses often makes it challenging to track daily spending, categorize expenses, and maintain precise financial records. Conventional approaches like paper notes or spreadsheets lack automation, transparency, and real-time insights. As a result, families may face issues such as overspending, ineffective budgeting, and limited understanding of monthly financial patterns. To overcome these problems, a centralized and automated solution within ServiceNow is essential to efficiently record, organize, and analyze family expenses.

Execution:

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.

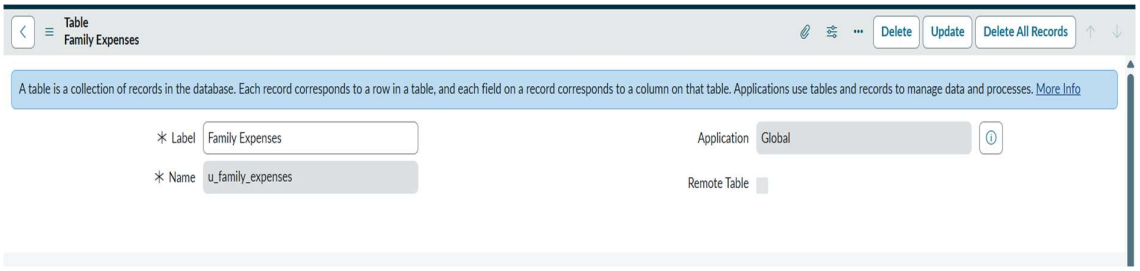


Creation of Family Expenses Table:

1. Go to All > In the filter search for Tables > click on New.
2. Enter the Details:
   Label: Family Expenses

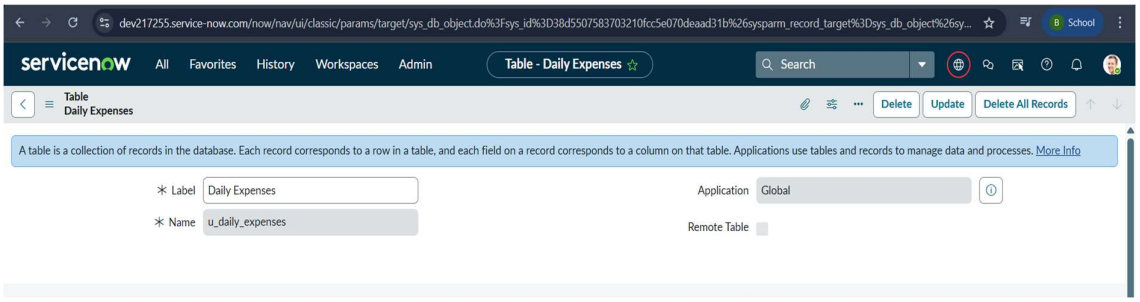
Name: Auto-Populated
New menu name: Family Expenditure

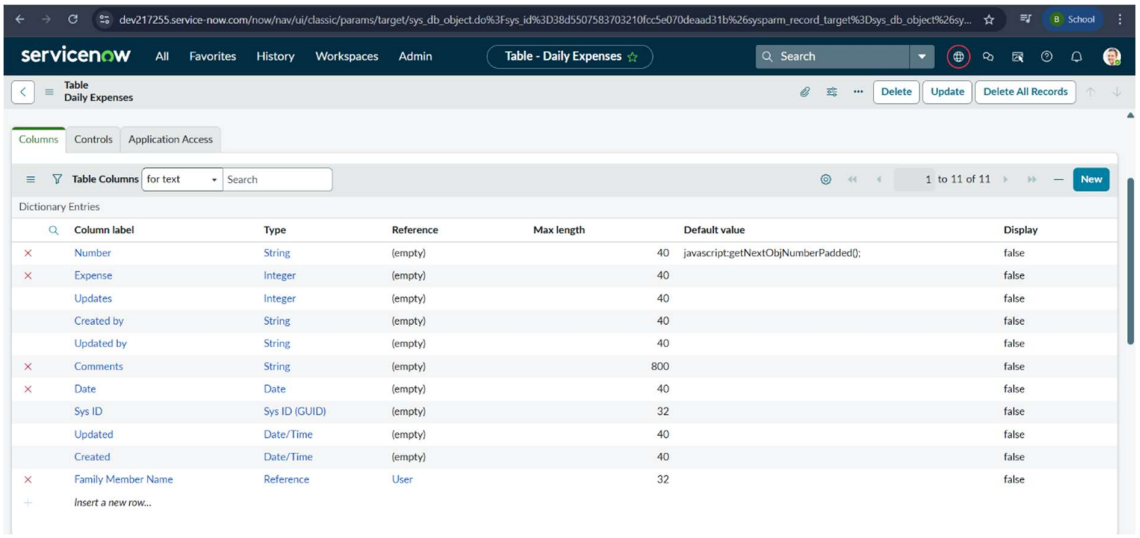
3. Go to the Header and right click there>> click on Save.



Creation of Daily Expenses Table:

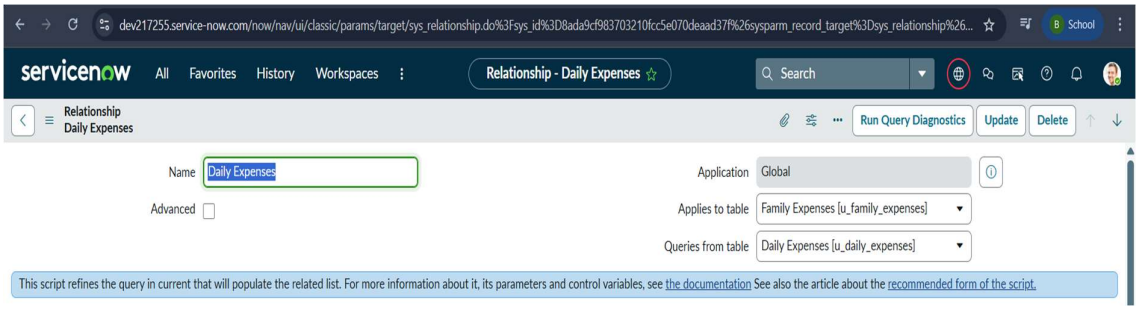
1. Go to All > In the filter search for Tables > click on New.
2. Enter the Details:
   Label: Daily Expenses
   Name: Auto-Populated
   Add Module to menu: Family Expenditure
3. Go to the Header and right click there>> click on Save.





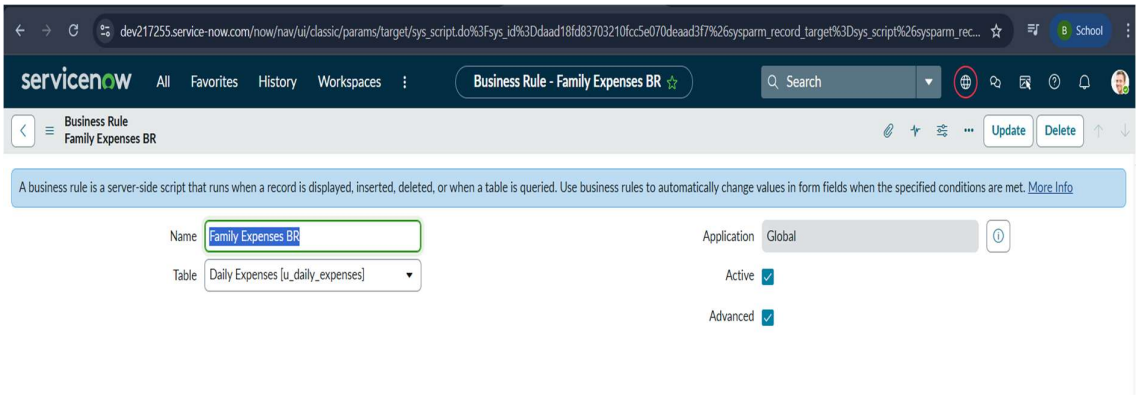
Creation of Relationship between Family Expenses and Daily Expenses tables:

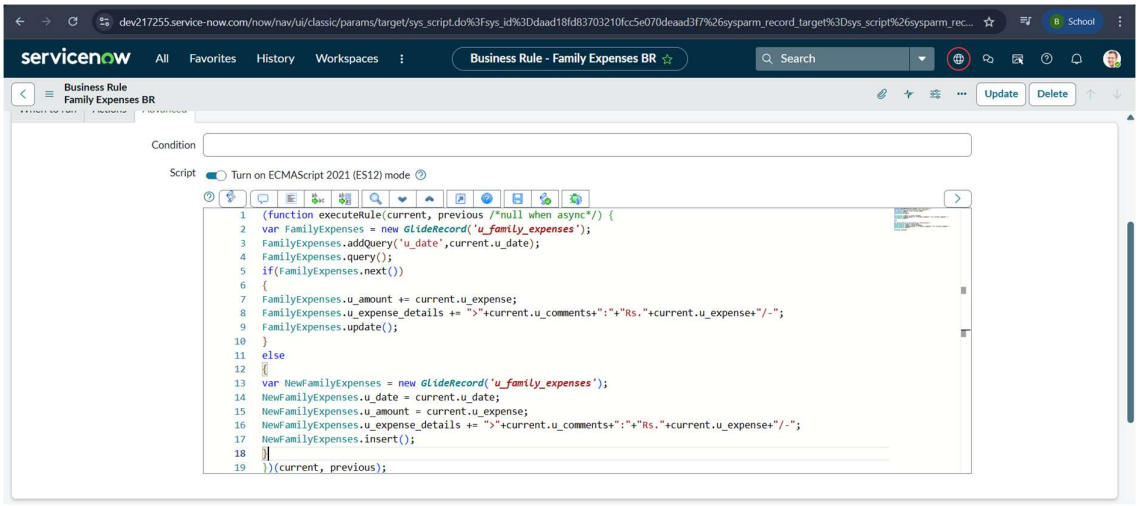
1. Go to All >> In the filter search for Relationships >> Open Relationships
2. Click on New.
3. Enter the details:
   Name: Daily Expenses
   Applies to table: Select Family Expenses
   Daily Expenses: Select Daily Expenses
4. Click Save.



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
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);
```

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

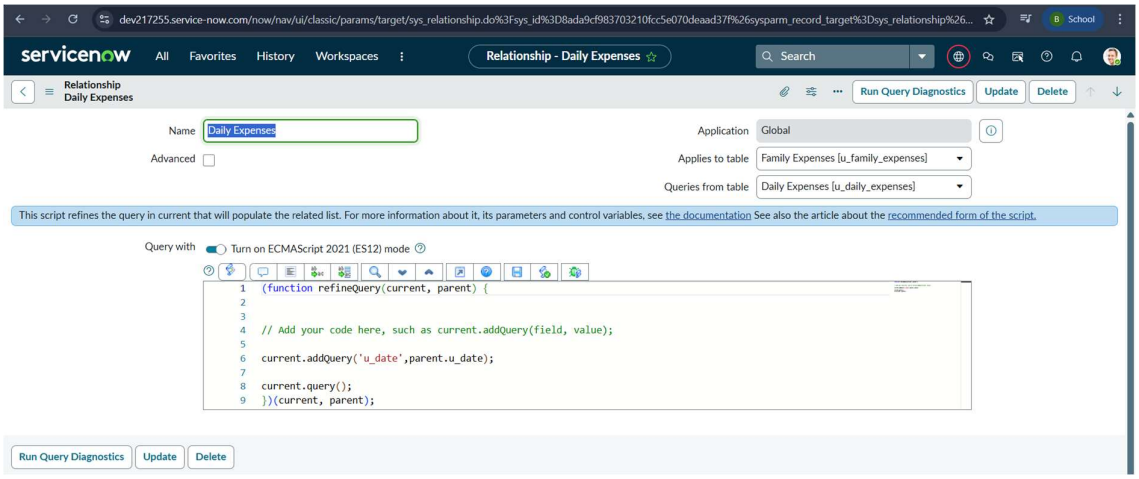
Configure the Relationship:

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) {
 current.addQuery('u_date,parent.u_date);
 current.query();
 }) (current, parent);
```

5. Click on Update.



Conclusion:

The Family Expense Calculation System using ServiceNow provides an efficient and automated solution for managing household financial activities. By leveraging ServiceNow's capabilities like custom tables, business rules, UI policies, and reports, the system ensures accurate tracking, budget control, and real-time insights. This project demonstrates how ServiceNow can be utilized to streamline everyday financial management, reduce manual effort, and promote smarter budgeting decisions for families.