Calculating Family Expenses using ServiceNow

Problem Statement:

There is currently no efficient system in place to track, categorize, and analyze family expenses in a way that is integrated, automated, and accessible in real-time. This leads to poor budget planning, missed payments, overspending, and a lack of financial visibility.

Objective:

To design and implement a solution using **ServiceNow** that allows family members to:

1. **Input and categorize expenses** easily via a user-friendly interface or mobile portal.
2. **Automate recurring expenses** (e.g., rent, subscriptions).
3. **Track total and category-wise spending** on a monthly/weekly basis.
4. **Set spending limits and receive alerts** when thresholds are crossed.
5. **Generatereportsanddashboards**tovisualizetrendsandsupportbetterfinancial decisions.
6. **Share visibility and responsibilities** across family members via roles or user groups.

Skills:

- **ServiceNow App Development**(AppEngine Studio)
- **Custom Tables & Data Modeling**
- **Form Design & UI Customization**
- **Flow Designer** (for automation)
- **Business Rules & Scripting**
- **Reporting & Dashboards**
- **User Roles & Access Control (ACLs)**

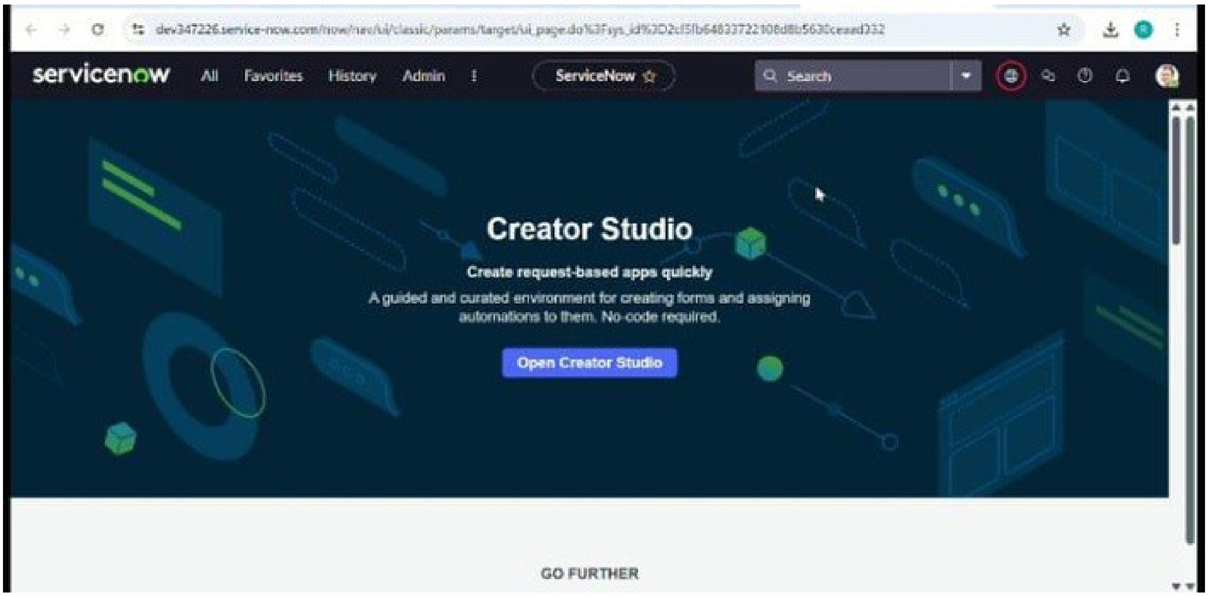
TASK INITIATION

Milestone 1 : 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.

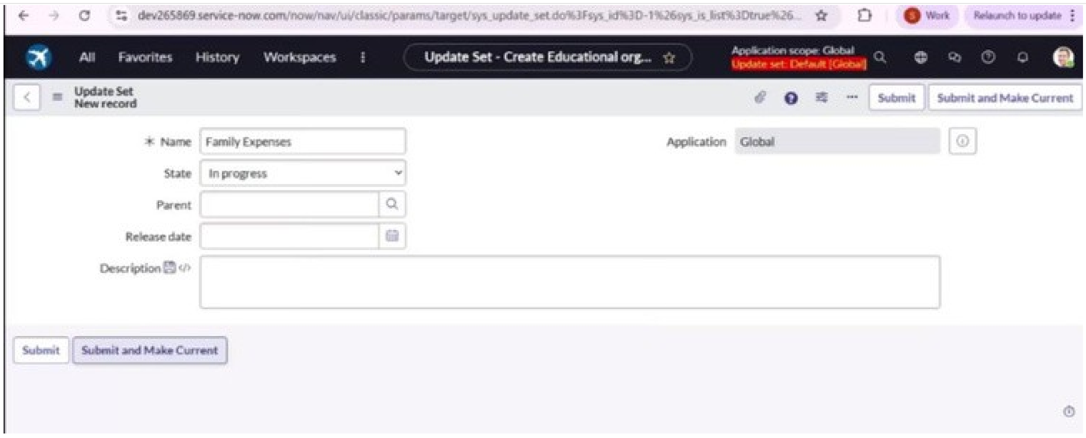
5. You'll receive an email with the instance details once it's ready.
6. Log in to your ServiceNow instance using the provided credentials.
7. Now you will navigate to the ServiceNow.



Milestone 2:New Update Set

Activity 1: Creation of New Update Set

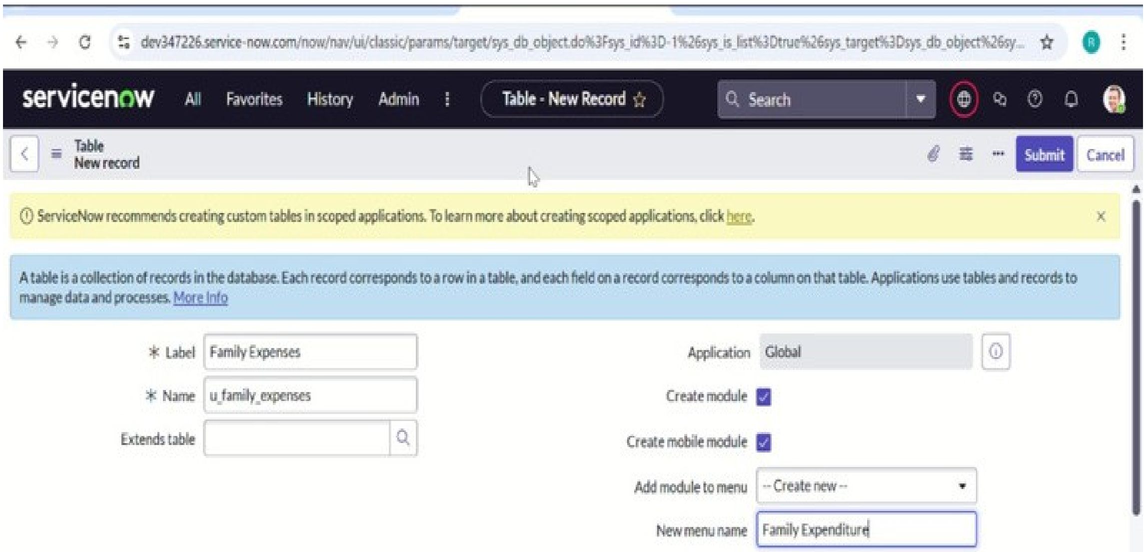
1.Go to All >>In the filter search for Local Update set > click on New.
2.Enter the Details as:
Name : Family Expenses



Milestone 3: Table(Family Expenses)

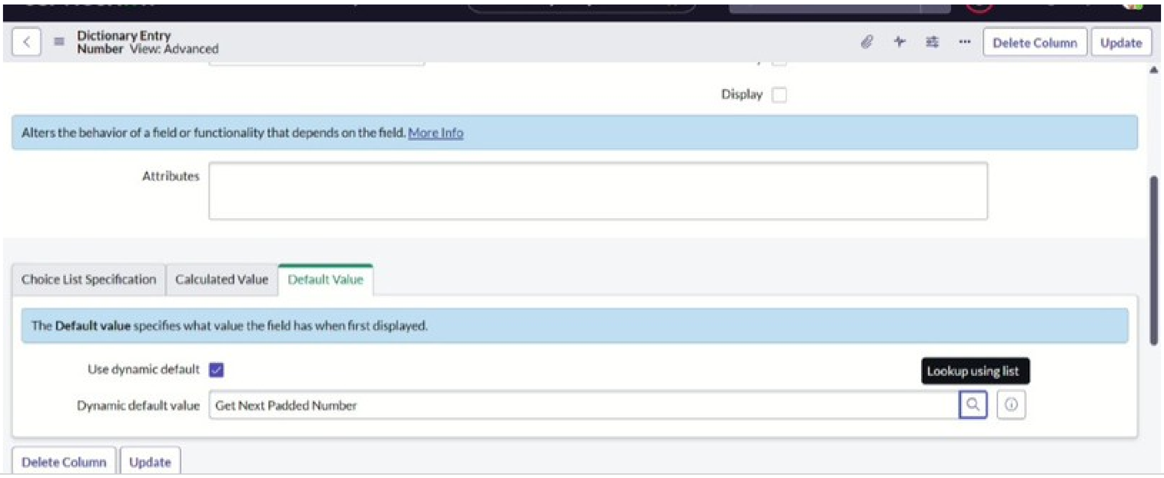
Activity 1: Creation of Family Expenses

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

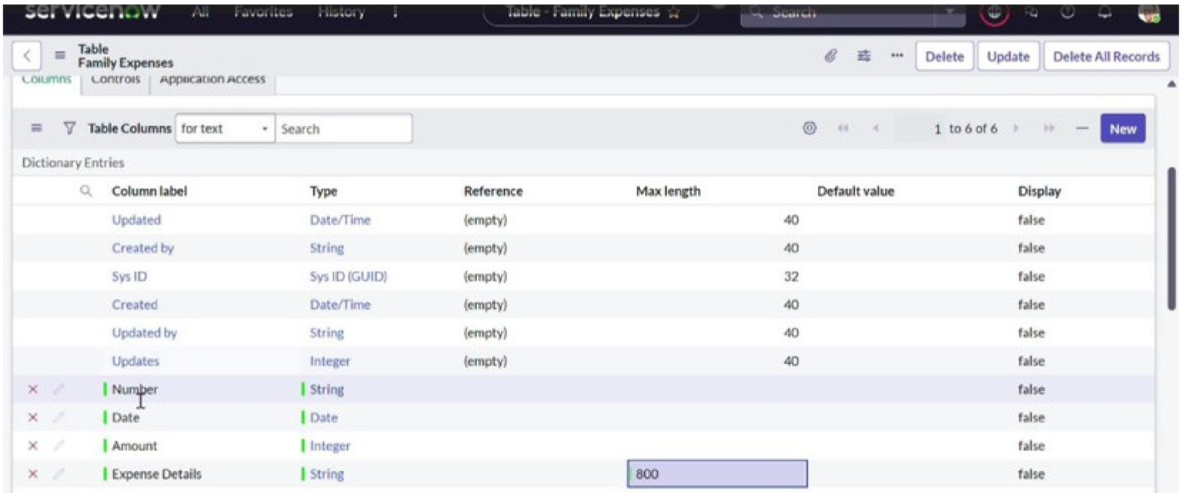


Activity 2: Creation of Family Expenses Table

1. Near Columns Double click near insert a new row.
2. Give the details as:
   Columnlabel:Number
   Type : String
3. Double click on insert a new row again.
4. Give the details as:
   Columnlabel:Date
   Type : Date
5. Double click on insert a new row again
6. Give the details as:
   Columnlabel:Amount
   Type : Integer
7. Double click on insert a new row again



8. Give the details as:
   Columnlabel:ExpenseDetails
   Type : String
   Max length : 800
9. Go to the Header and right click there>> click on Save.



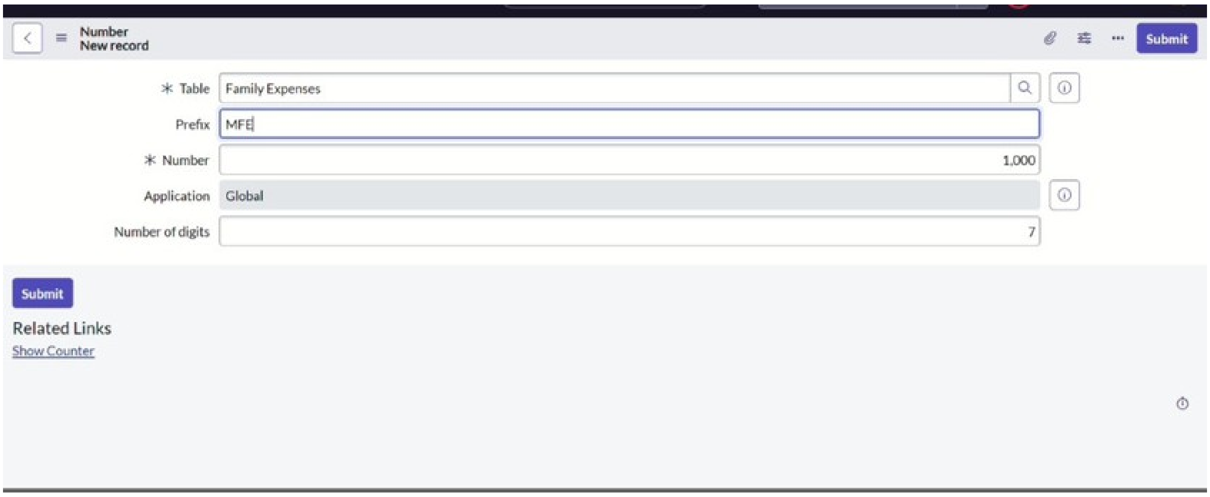
Activity 3: Making Number Field an Auto-Number

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

5. Go to All >>In the filter search for Number Maintenance >> select Number Maintenance
6. Click on New.
7. Enter the below Details:

Table:FamilyExpenses
Prefix : MFE

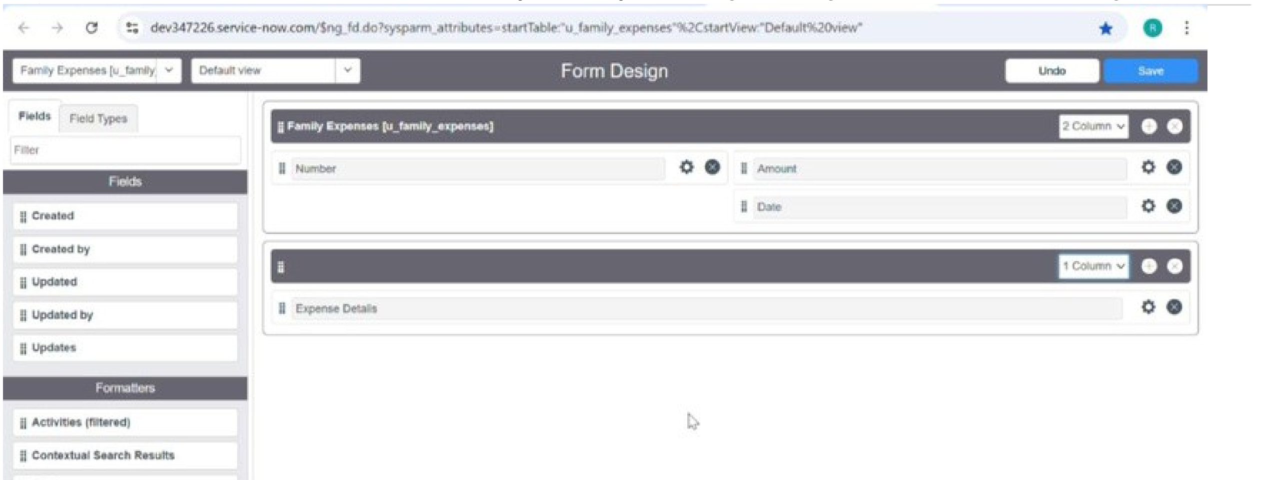
8. Click on Submit



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. MakeDate,AmountMandatoryFieldbyclickingonthegearicon andchecking

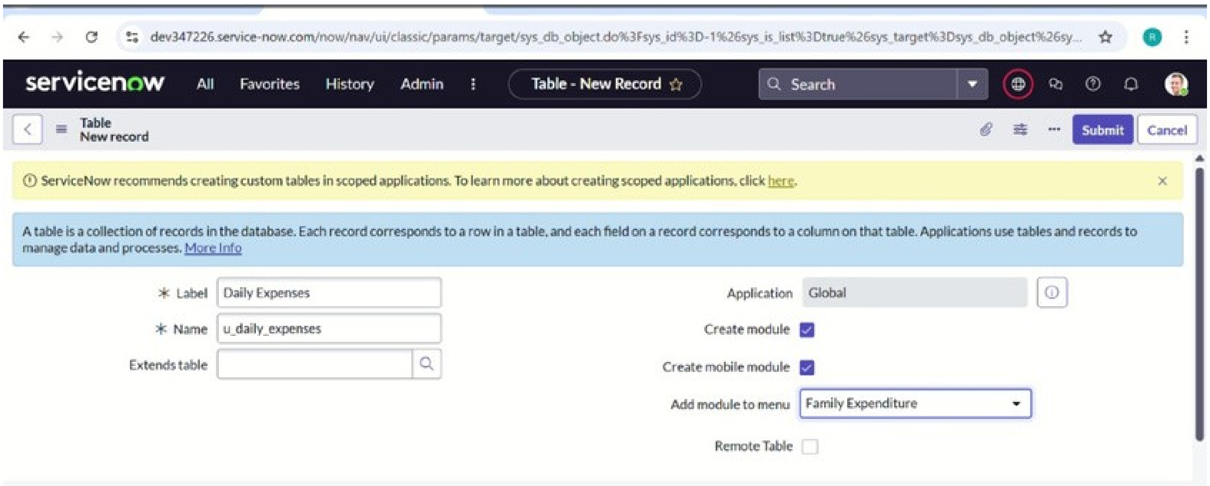


Milestone 4: Table(Daily Expenses)

Activity 1: Creation ofTable(Daily Expenses)

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

2. EntertheDetails:
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)

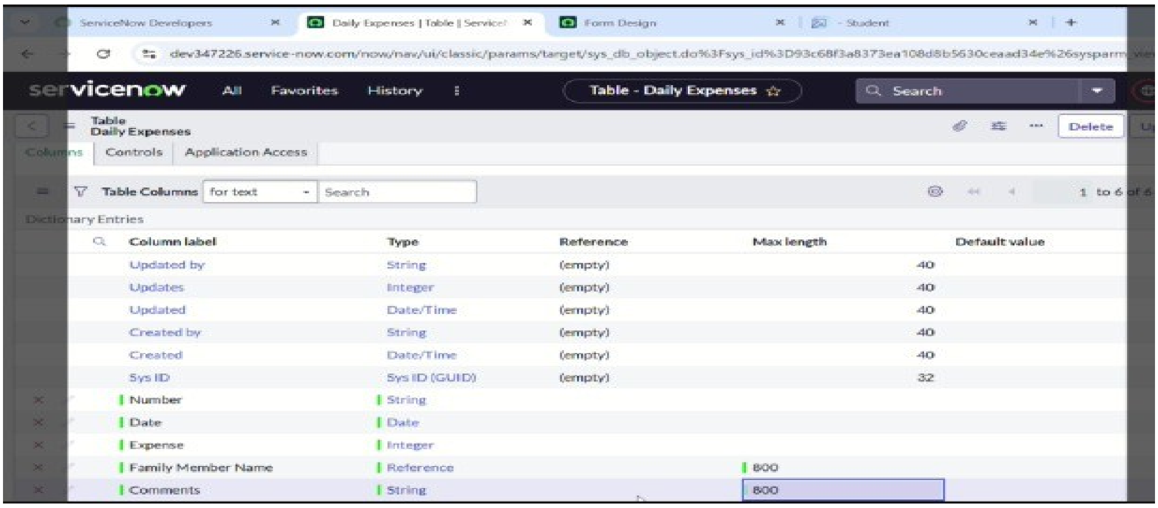
1. Near Columns Double click near insert a new row.
2. Give the details as:
   Columnlabel:Number
   Type : String
3. Double click on insert a new row again
4. Give the details as:
   Columnlabel:Date
   Type : Date
5. Double click on insert a new row again
6. Give the details as:
   Columnlabel:Expense
   Type : Integer
7. Double click on insert a new row again
8. Give the details as:
   Columnlabel:FamilyMemberName
   Type : Reference

Max length : 800

9. Double click on insert a new row again
10. Give the details as:

    Columnlabel:Comments
    Type : String
    Max length : 800

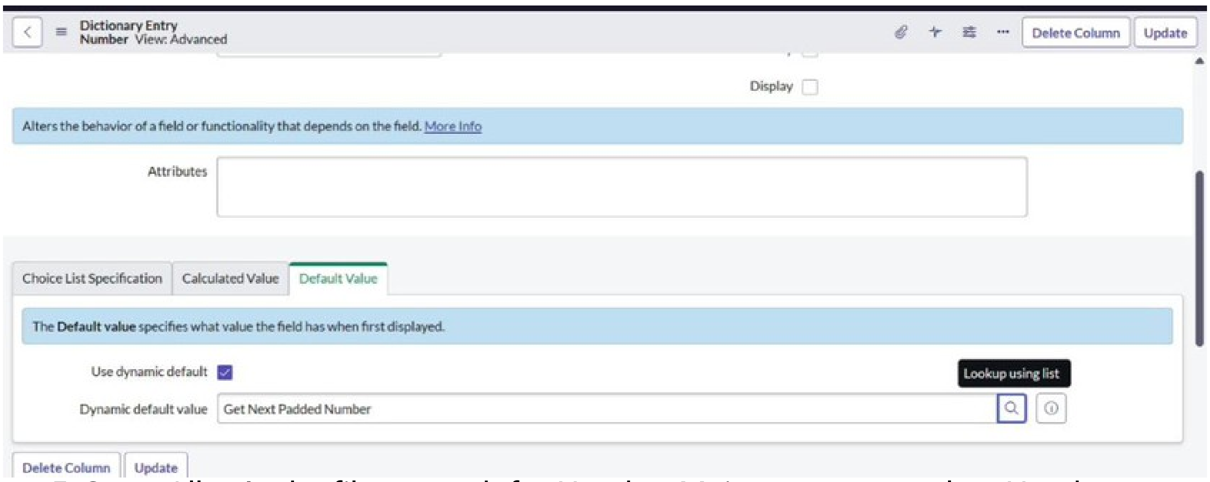
11. Go to the Header and right click there>> click on Save.



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:

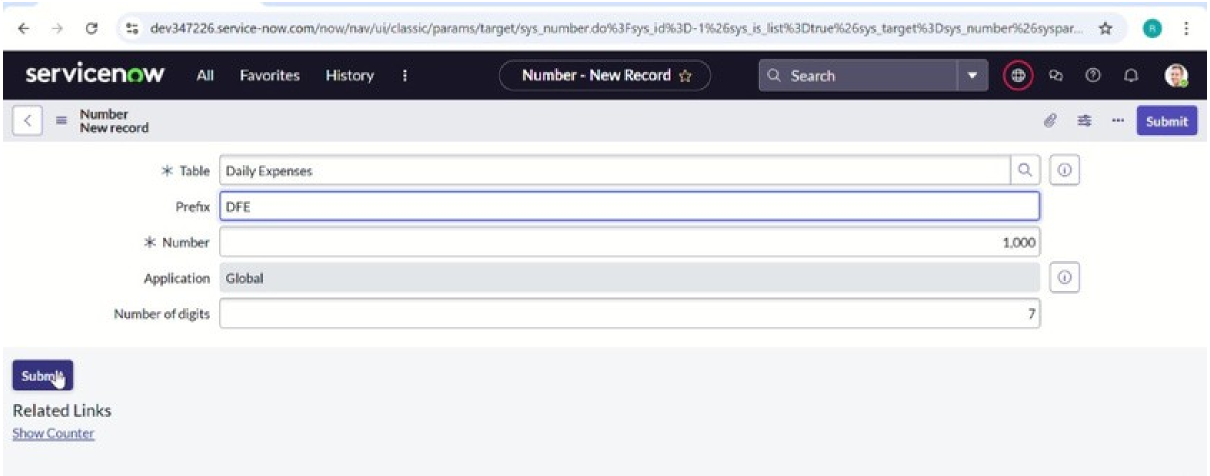
    Use dynamic default : check the box
    Dynamic default value : Get Next Padded Number



5. Go to All >>In the filter search for Number Maintenance >> select Number Maintenance
6. Click on New.

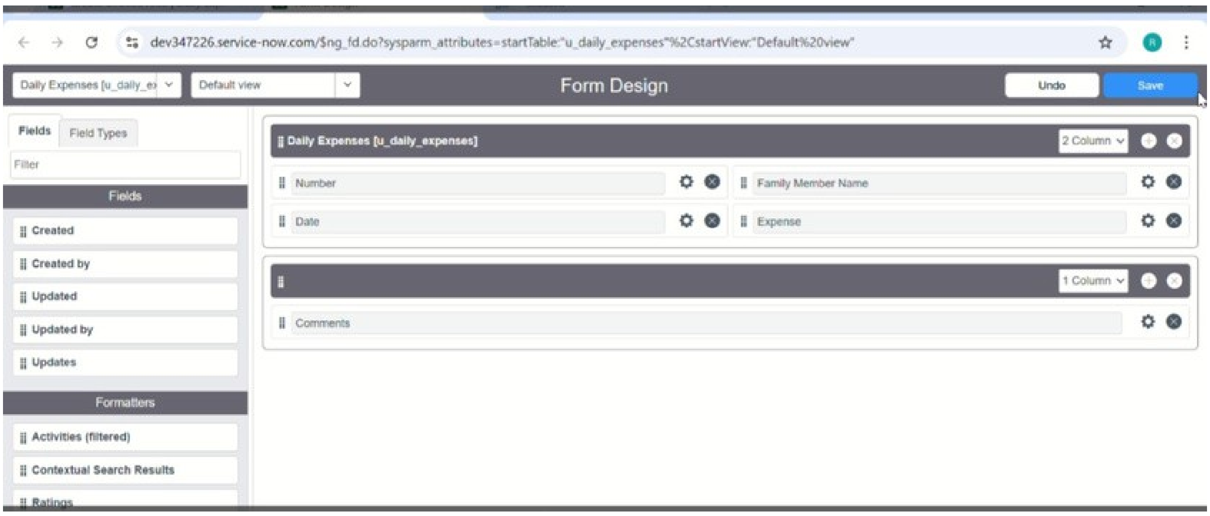
Table:DailyExpenses
Prefix : DFE

8. 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.
5. Make Number Read-Only Field by clicking on the gear icon and checking Read-Only
6. MakeDate,FamilyMemberNameMandatoryFieldbyclickingonthegeariconand checking Mandatory
7. Click on Save

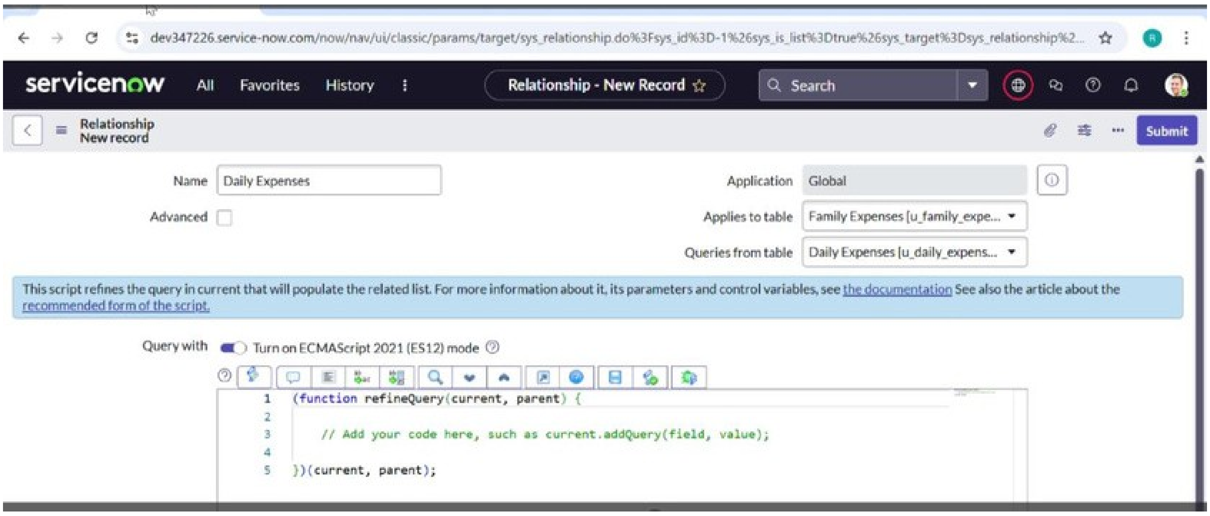


Milestone 5: Creation of Relationship

Activity 1: Creation of Relationship between Family Expenses and Daily Expenses tables

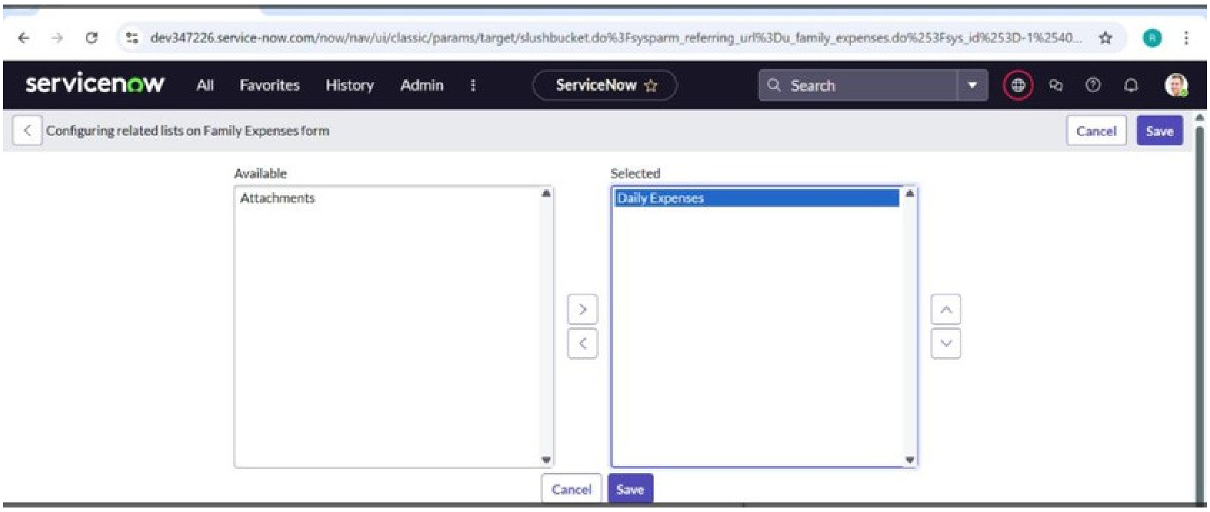
1. Go to All >> In the filter search for Relationships >> Open Relationships
2. Click on New

3. Enter the details:
    Name : Daily Expenses
    Appliestotable:SelectFamilyExpenses
    Daily Expenses : Select Daily Expenses
4. Click Save.



Milestone 6: 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

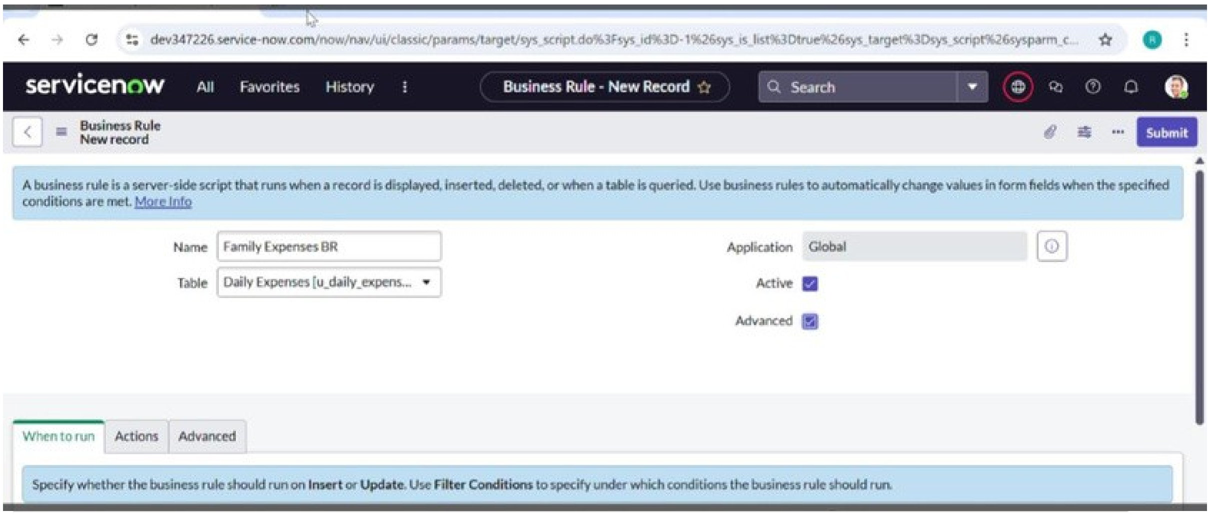


Milestone 7: Business Rules

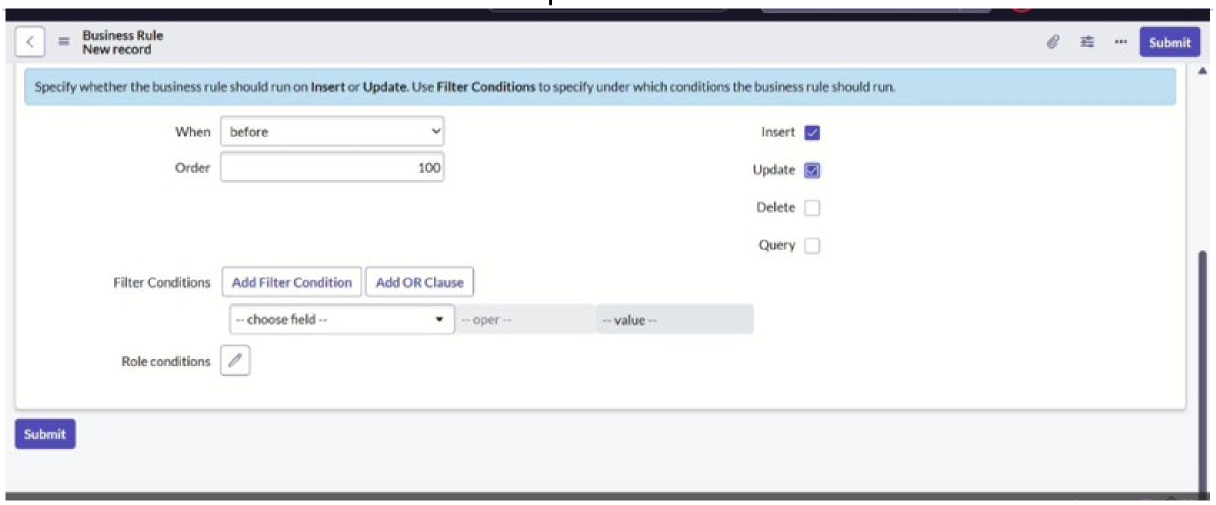
Activity 1: Creation of Business Rules

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:SelectDailyExpenses
   Check Advanced



4. Inwhen to run Check Insert and Update



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

>>

(functionexecuteRule(current,previous/*nullwhenasync*/)

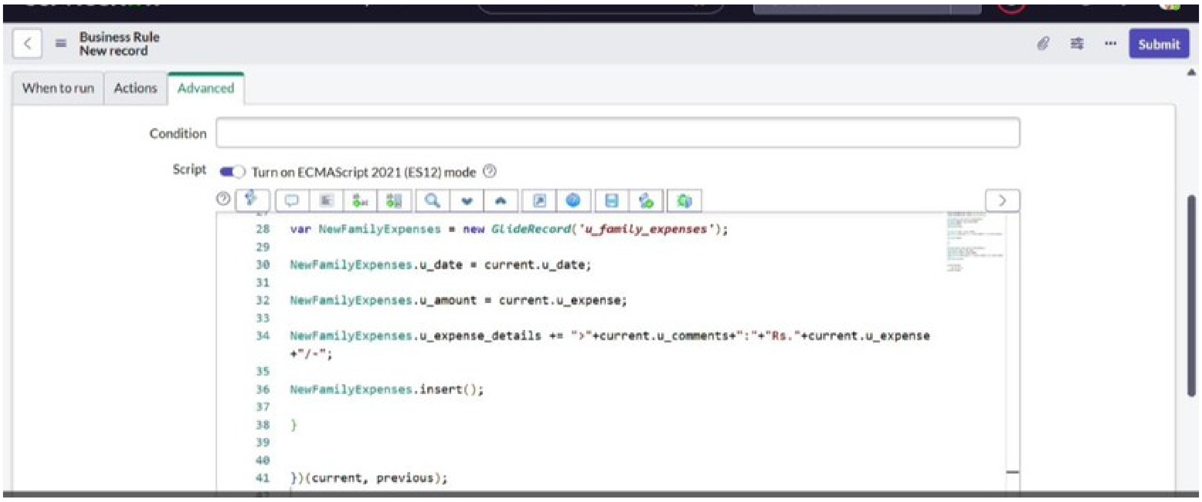
{ varFamilyExpenses = new

GlideRecord('u_family_expenses');

```
FamilyExpenses.addQuery('u_date',current.u_d
ate);
FamilyExpenses.query();if(FamilyExpenses.nex
t())
{
FamilyExpenses.u_amount += current.u_expense;                    +=
FamilyExpenses.u_expense_details
">"+current.u_comments+":"+"Rs."+current.u_expense+"/
-"; FamilyExpenses.update();
}
else
{
varNewFamilyExpenses=newGlideRecord('u_family_expense
s'); 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.



Milestone 8: 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.

```
(functionrefineQuery(current, parent) {

//Addyourcodehere,suchascurrent.addQuery(field,value
        ); current.addQuery('u_date',parent.u_date);
        current.query();

})(current, parent);
```

5. Click on Update.