CALCULATING FAMILY EXPENSES USING SERVICE NOW

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BONAFIDE CERTIFICATE

This is to certify that the project report titled **"CALCULATING FAMILY EXPENSES USING SERVICE NOW"** is the Bonafide work of **DHIVYA R (910022104047), PUGALARASI M (910022104054), VIDYA S (910022104032)** who carried out the project work under my supervision in the Naan Mudhalvan Lab.

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ABSTRACT

The Family Expense Calculation System developed on the ServiceNow platform aims to provide an efficient and user-friendly solution for managing and tracking household expenses. The system enables users to record, categorize, and analyze daily financial transactions under various expense categories such as food, utilities, education, healthcare, and entertainment. Through its budget-setting and real-time tracking features, users can monitor their spending patterns and identify areas for financial improvement.

The system leverages ServiceNow's powerful automation, reporting, and integration capabilities to deliver a seamless experience with accurate and timely data updates. A customized dashboard presents clear visual reports and summaries, helping users make informed financial decisions. Additionally, the project ensures data privacy, scalability, and flexibility, making it suitable for families of different sizes and financial structures.

By offering a centralized and digital platform for expense management, this project promotes financial discipline, transparency, and control over family finances. Ultimately, the Family Expense Calculation System empowers users to make smarter budgeting decisions, reduce unnecessary spending, and achieve long-term financial stability.

Problem Statement:

The project aims to develop a comprehensive expense calculation system using the ServiceNow platform. This system will enable users to track and manage family expenses efficiently while offering essential features such as expense categorization, budget setting, real-time tracking, and reporting capabilities. By leveraging ServiceNow's robust and flexible framework, the system will ensure seamless integration, a user-friendly interface, and scalability to accommodate varying family sizes and financial complexities. The ultimate goal of this project is to empower users with intelligent tools that support informed financial decision-making and promote financial well-being within the family unit.

Objectives:

The main objective of this project is to develop a Family Expense Management System on the ServiceNow platform that enables efficient tracking, categorization, and budgeting of household expenses. The specific objectives are as follows:

- To provide real-time monitoring and interactive dashboards for better financial visibility.

- To generate insightful analytical reports that help users make informed financial decisions.

- To ensure scalability and adaptability for families of different sizes and financial needs.

- To promote financial discipline through detailed spending analysis and budgeting tools.

- To maintain data security and integrity using ServiceNow's built-in security features.

Skills:

TASK INITIATION

Milestone 1: Setting up ServiceNow Instance

Activity: 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.
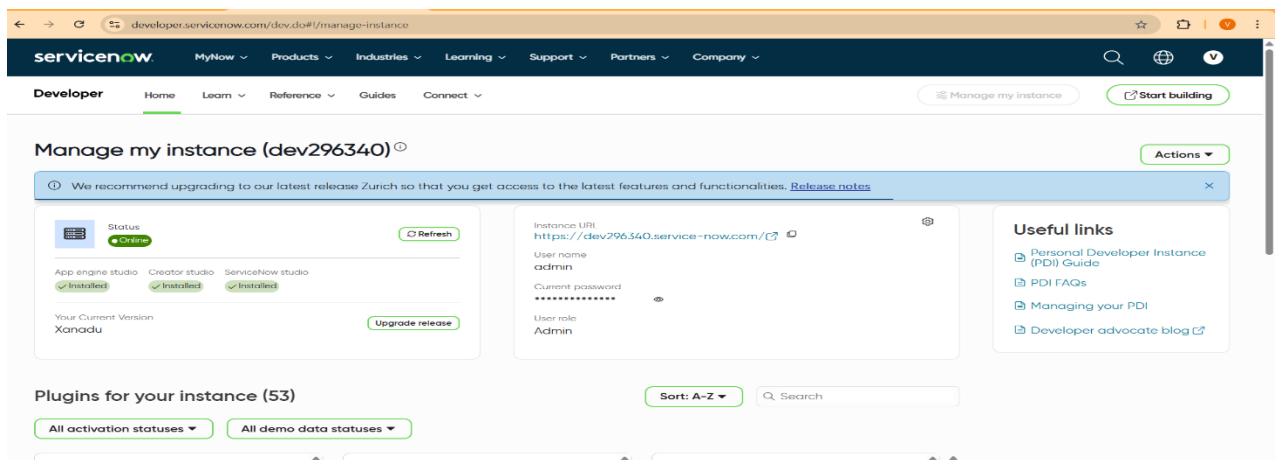
6. Log in to your ServiceNow instance using the provided credentials.

7. Now you will navigate to the ServiceNow.

Milestone 2: Creation of New Update Set

Activity: Creation of New Update Set

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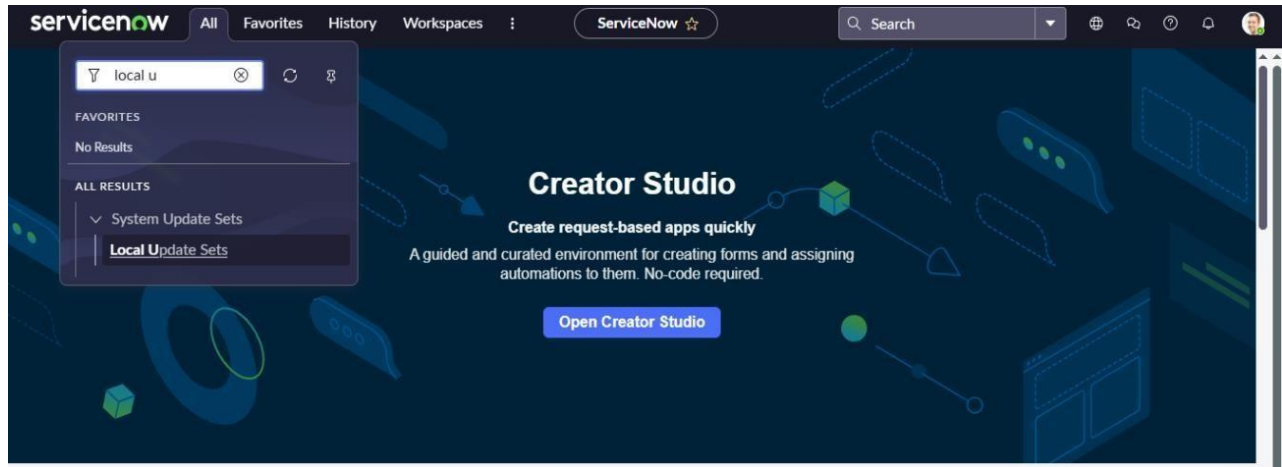
2. Enter the Details as:

   Name: Family Expenses

3. Then click on Submit and Make current

Milestone 3: Creation of Table

Activity: Creation of New Update Set

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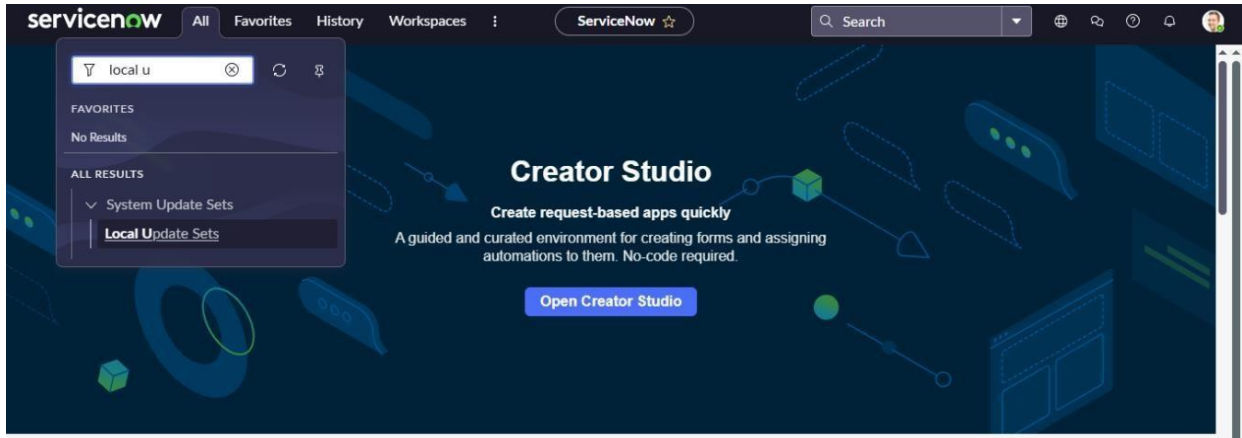
2. Enter the Details as:

    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.

   Give the details as:

   i. Column label: Number

   ii. Type: String

2. Double click on insert a new row again

   Give the details as:

   i. Column label: Date

   ii. Type: Date

3. Double click on insert a new row again

   Give the details as:

   i. Column label: Amount

   ii. Type: Integer

4. Double click on insert a new row again

   Give the details as:

   i. Column label: Expense Details

   ii. Type: String

   iii. Max length: 800

5. 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:

    i. Use dynamic default: check the box

    ii. Dynamic default value: Get Next Padded Number
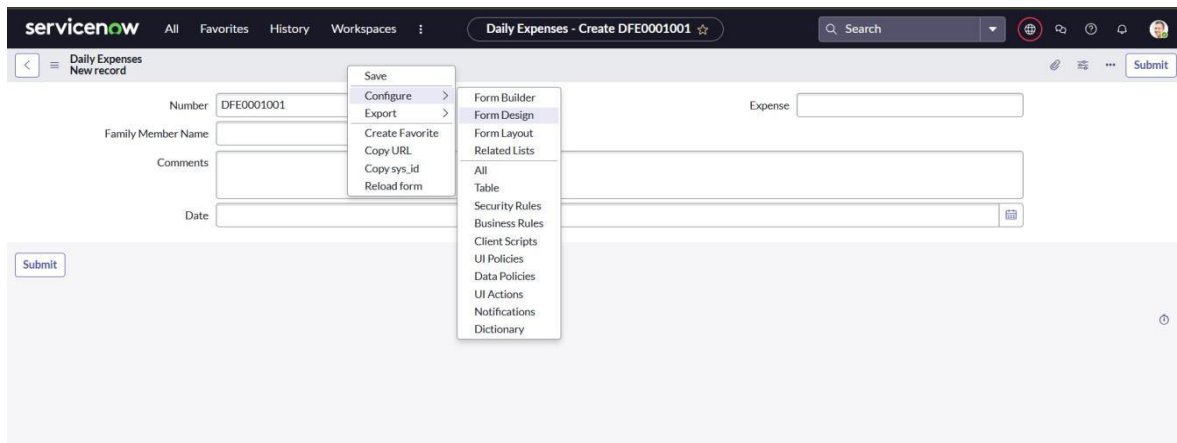
4. Click on Update.

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

6. Click on New.

7. Enter the below Details:

    i. Table: Family Expenses

ii. 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. 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:

   i. Label: Daily Expenses

   ii. Name: Auto-Populated

   iii. 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.
   Give the details as:

   Column label: Number

   Type: String

2. Double click on insert a new row again

   Give the details as:

   Column label: Date

   Type: Date

3. Double click on insert a new row again

   Give the details as:

   Column label:

   Expense

   Type: Integer

4. Double click on insert a new row

   Give the details as:

   Column label: Family Member Name

   Type: Reference

   Max length: 800

5. Double click on insert a new row

   again Give the details as:

   Column label: Comments

   Type: String

   Max length: 800

6. 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:Daily Expenses

   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

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

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

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

10. Click on Save.

Milestone 6: Creation of Relationship

Activity: 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.

Milestone 7: Configuring Related List on Family Expenses

Activity: 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
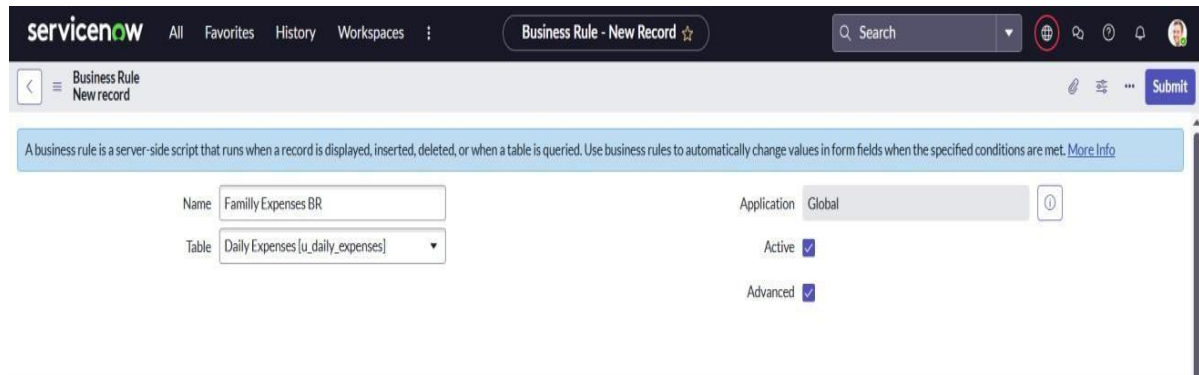
Activity: Creation of Business Rules

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 View (we write the code): Write the below

```
(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);
```
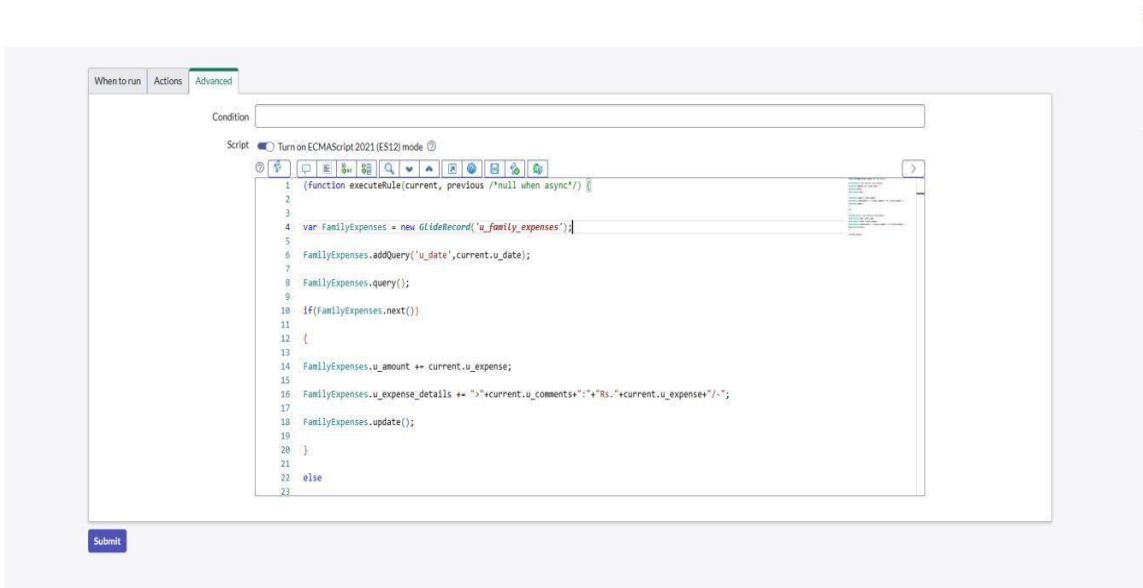

6. Go to the Header and right click there>> click on Save.

Milestone 9: Configure the Relationship

Activity: Configure the Relationship

1. 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.

Conclusion:

The project "Calculating Family Expenses using ServiceNow" demonstrates how technology can streamline and simplify household financial management. By leveraging the features of ServiceNow, the system provides efficient expense tracking, categorization, budgeting, and reporting while ensuring scalability, data security, and ease of use. The customized components, such as tables, forms, and business rules, enable a user-friendly and automated solution that promotes financial awareness and discipline. Overall, the project highlights the potential of ServiceNow as a versatile platform capable of supporting real-world applications beyond traditional IT service management.