

Calculating Family Expenses using Service Now

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Team Size : 4

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Problem Statement:

The project aims to develop a comprehensive expense calculation system using ServiceNow. This system will enable users to track and manage family expenses efficiently. 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 end goal is to empower users with the tools they need to make informed financial decisions and promote financial well-being within the family unit.

Objective:

1. Develop a centralized expense management system in ServiceNow to record, categorize, and monitor family expenses.
2. Enable budget setting and real-time tracking with alerts to help users manage spending effectively.
3. Provide analytical reports and dashboards for better insights into spending patterns and financial planning.



4. Ensure scalability, security, and seamless integration with ServiceNow's platform features.

5. Design a user-friendly interface to promote ease of use and support informed financial decision-making.

Skills:

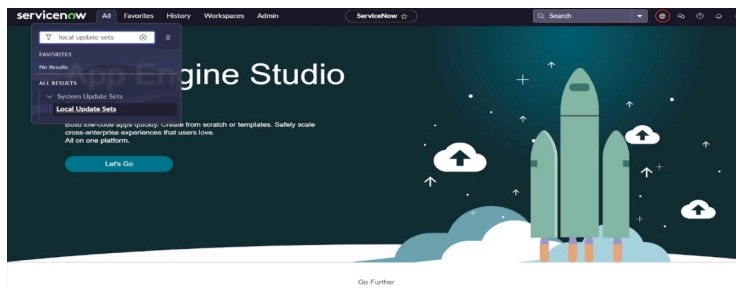
Setting up ServiceNow Instance, Creation of New Update Set, Creation of Table, Creation of Relationship, Configuring Related List, Creation of Business Rules, Configure the Relationship

TASK INITIATION

Milestone 1 : Update Set

Activity 1: 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.



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Milestone 2 : 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


The screenshot displays the 'New Table' form. On the left, there are three input fields: 'Label' with the value 'Daily Expenses' (marked with a red box and a red arrow labeled '1'), 'Name' with the value 'u_daily_expenses' (marked with a red box and a red arrow labeled '2'), and 'Extends table' which is empty. On the right, there are several options: 'Application' set to 'Global', 'Create module' checked, 'Create mobile module' checked, and 'Add module to menu' set to 'Family Expenditure' (marked with a red box and a red arrow labeled '3'). There is also an 'Application Menu' button.

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


Activity 2: Creation of Columns(Fields)







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Choice List Specification Calculated Value **Default Value** 

The **Default value** specifies what value the field has when first displayed.

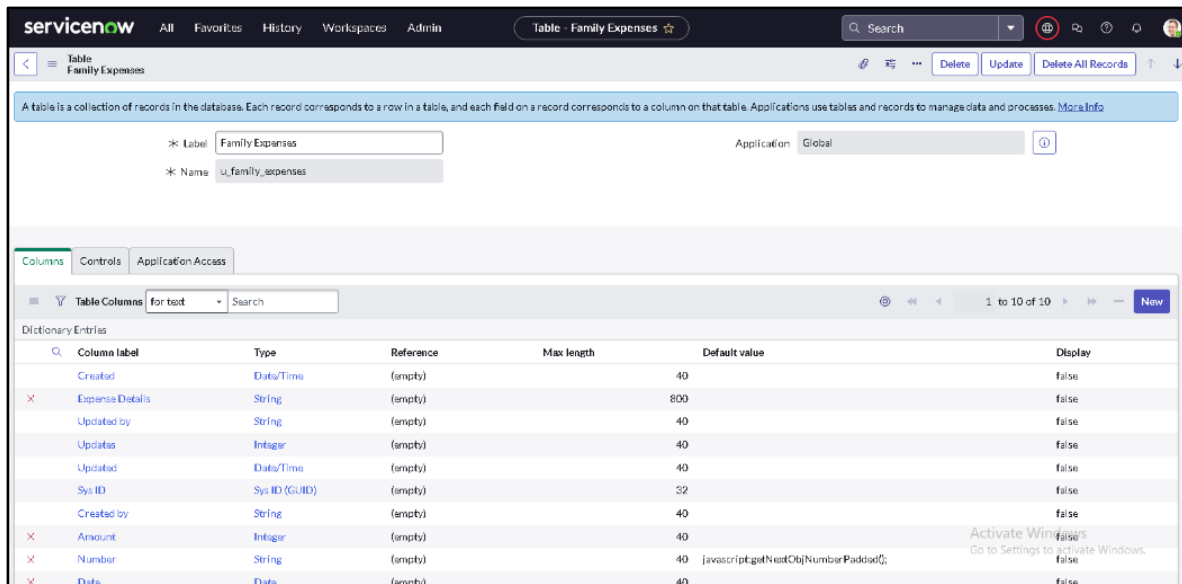
Use dynamic default ☒ 

Dynamic default value Get Next Padded Number   

Delete Column **Update** 

- 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

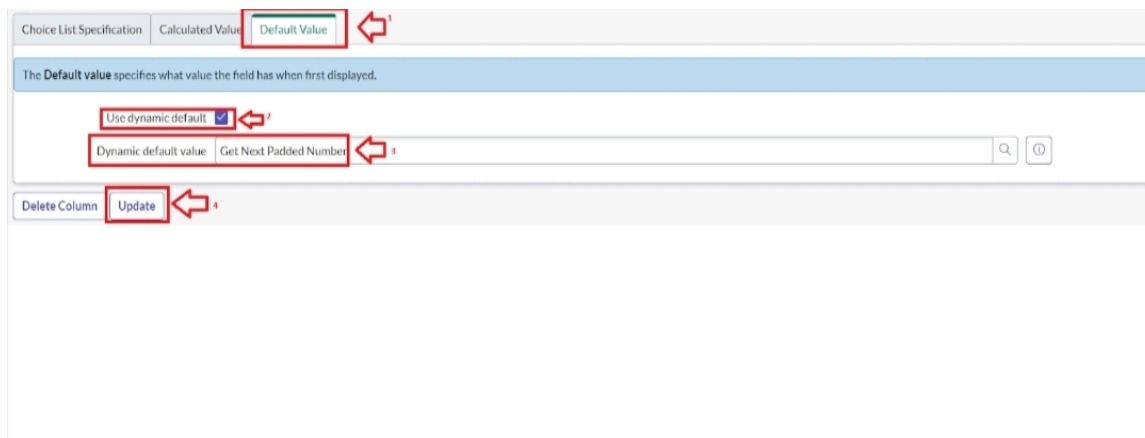




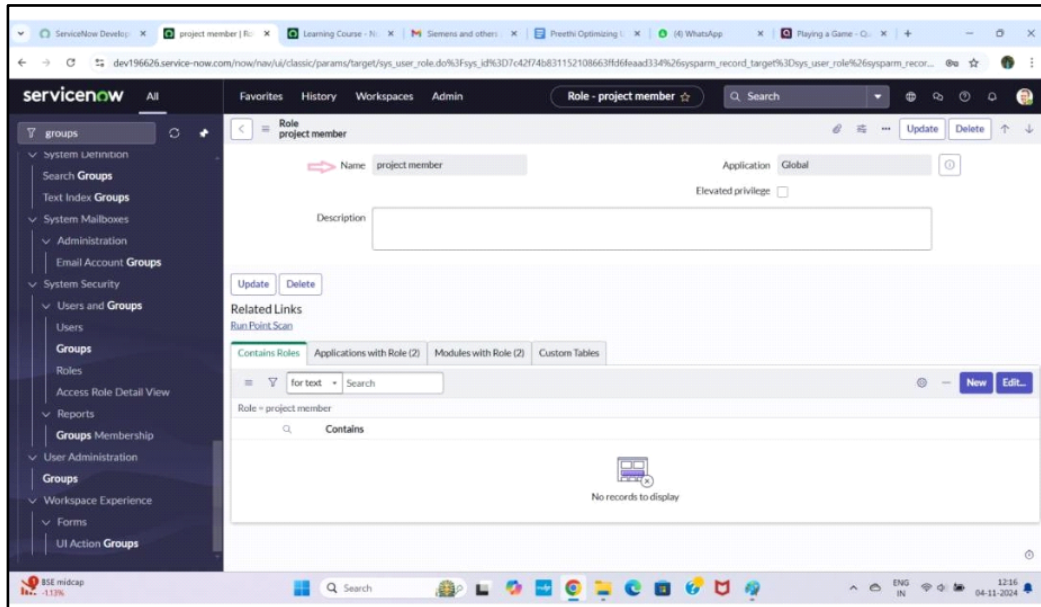
- Go to the Header and right click there>> click on Save.

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 Number Maintenance
- 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



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Mandatory

- Click on Save.

Milestone 3 : Creation of Table(Daily Expenses)

Activity 1: Creation of Daily Expenses Table

- 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.

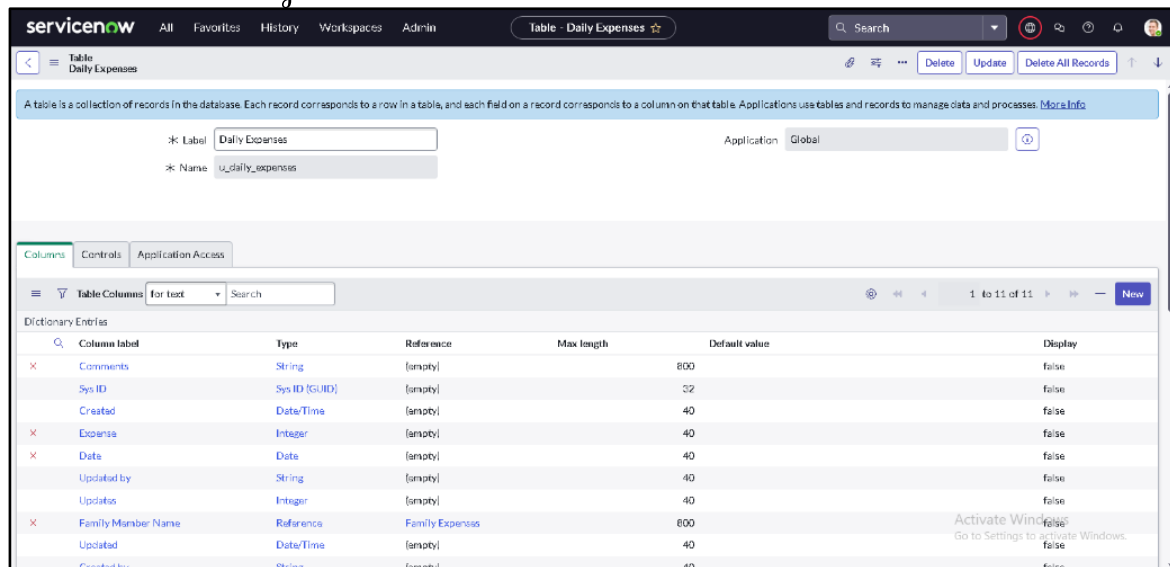
Activity 2: Creation of Columns(Fields)

- 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 : Expense
 - Type : Integer
- Double click on insert a new row again
- Give the details as:
 - Column label : Family Member Name
 - Type : Reference
 - Max length : 800
- Double click on insert a new row again
- Give the details as:



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- 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

- 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.



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Choice List Specification Calculated Value **Default Value** ↩️¹

The **Default value** specifies what value the field has when first displayed.

Use dynamic default ☒ ↩️²

Dynamic default value Get Next Padded Number 🔍 ⓘ

Delete Column **Update** ↩️⁴

- Go to All >> In the filter search for Number Maintenance >> select Number Maintenance
- Click on New.
- Enter the below Details:
- Table : Family Expenses
- Prefix : MFE

< ≡ Number Maintenance 🔍 ⚙️ ... Update Delete

* Table Family Expenses 🔍 ⓘ

Prefix MFE

* Number 1,000

Application Global ⓘ

Number of digits 7

Update Delete

- 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 4 : Creation of Relationship

Activity 1: 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
- Daily Expenses : Select Daily Expenses
- Click Save.

Milestone 5 : Configuring Related List on Family Expenses

Activity 1: 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 6 : Creation of

Business Rules



Activity 1: 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

Business Rule
New record

ss rule is a server-side script that runs when a record is displayed, inserted, deleted, or when a table is queried. Use business rules to automatically change values in form fields when the specified conditions are met.

Name: Family Expenses BR

Table: Daily Expenses (u_daily_expenses)

Application: Global

Active: ☒

Advanced: ☒

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

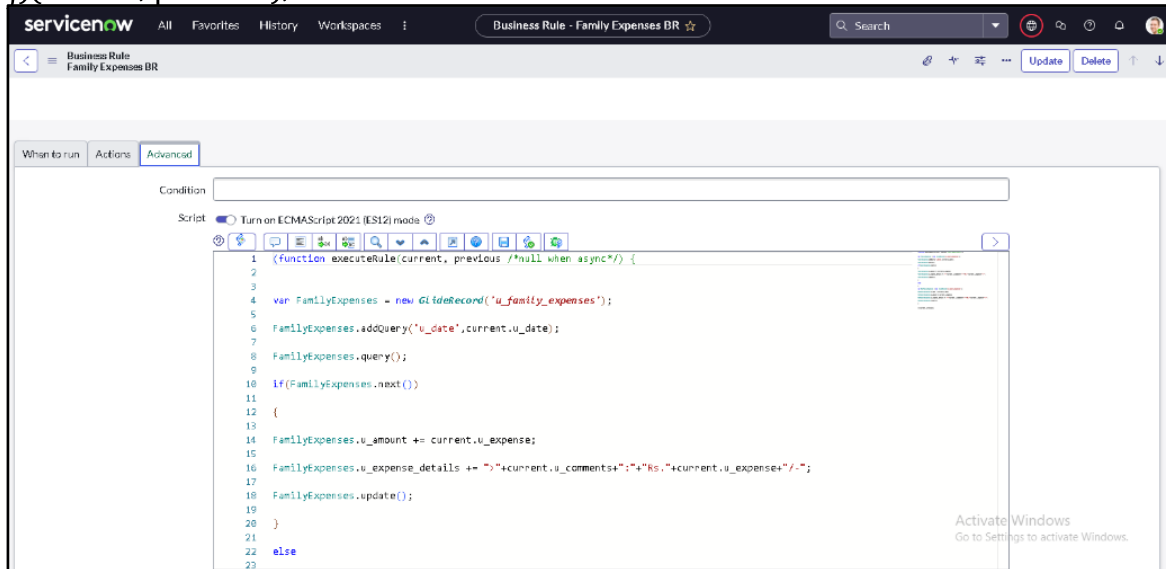
```
(function executeRule(current, previous /*null when async*/) {  
    var FamilyExpenses = new GlideRecord('u_family_expenses');  
    FamilyExpenses.addQuery('u_date',current.u_date);  
    FamilyExpenses.query();  
    if(FamilyExpenses.next())  
    {  
        FamilyExpenses.u_amount += current.u_expense;  
        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);

```



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

Milestone 7 : Configure the Relationship

Activity 1: 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();
})(current, parent);

```

Click on Update.



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Relationship
Daily Expenses

Name: Daily Expenses

Application: Global

Advanced: ☐

Applies to table: Family Expenses [u_family_expenses]

Queries from table: Daily Expenses [u_daily_expenses]

This script refines the query in current that will populate the related list. For more information about it, its parameters and control variables, see the documentation See also the article about the recommended form of the script.

Query with

```

1 (function refineQuery(current, parent) {
2
3 // Add your code here, such as current.addQuery(field, value);
4 current.addQuery('u_date',parent.u_date);
5 current.query();
6
7 })(current, parent);

```

Update Delete

Conclusion :

The Family Expense Calculation system developed using ServiceNow provides an efficient and user-friendly platform to track, manage, and analyze family expenses. With features like expense categorization, budget management, and real-time reporting, it helps families make informed financial decisions. This solution promotes better financial planning, ensures transparency, and supports long-term financial well-being.



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