

Project Design:

Team ID	LTVIP2025TrMID30893
Project Name	Calculating Family Expenses

Proposed solution

This approach allows quick setup without the need for coding or complex systems.

Calculating Family Expenses

Milestone 1: Setting up ServiceNow

Activity 1: Setting up ServiceNow

Purpose:

Service Now is traditionally used for ITSM, HR workflows, and enterprise processes, it can be customized to track personal or family expenses using the App Engine and low-code tools like

Tables, Forms, and Flow Designer.

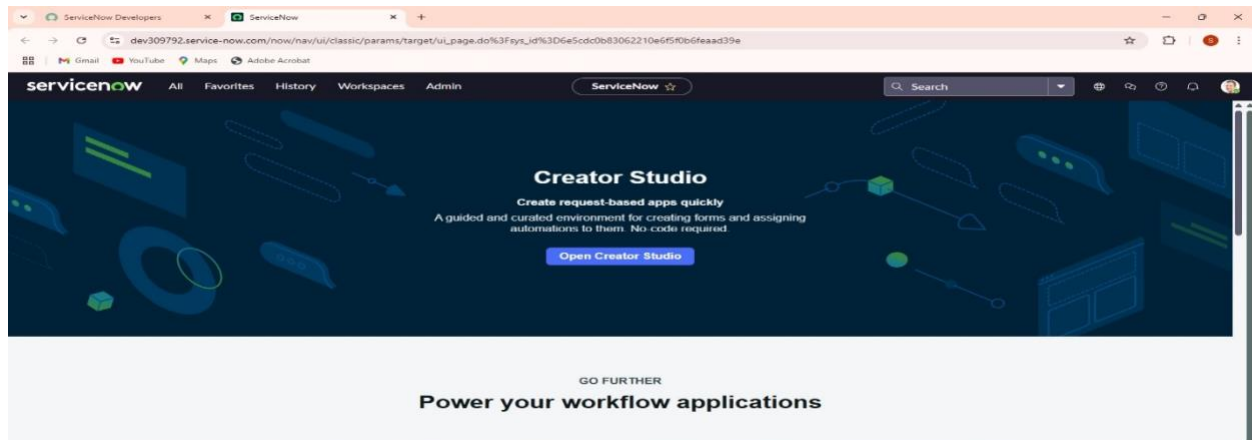
Use:

Setting up a ServiceNow instance is a crucial step for organizations looking to leverage ServiceNow for IT Service Management (ITSM), HR, Customer Service, or other business workflows

Steps:

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 provided credentials.
7. Now you will navigate to the ServiceNow.



Milestone 2: Creation of New Update Set

Activity 1: Creation of New Update Set

Purpose:

an update set is a way to track and package customizations or changes made to an instance so that they can be moved between environments (like from development to production).

Use:

The use of creating a new update set in calculating family expenses (within ServiceNow) is to track, manage, and migrate all the changes or customizations you make while building your Family Expense Calculator application.

Steps:

1. Go to All >> In the filter search for Local Update set > click on New
2. Then click on Submit and Make current.

ServiceNow interface showing the 'Update Set - Family Expenses' form. The form includes fields for Name, State, Application, Created, Created by, Release date, Install date, Installed from, and Description. Below the form is a 'Related Links' section with a link to 'Merge With Another Update Set'. At the bottom is a table titled 'Update set - Family Expenses' with columns: Created, Type, View, Target name, Updated by, Remote update set, and Action. The table is currently empty, showing 'No records to display'.

Milestone 3: Creation of Table

Activity 1: Creation of Family Expenses Table

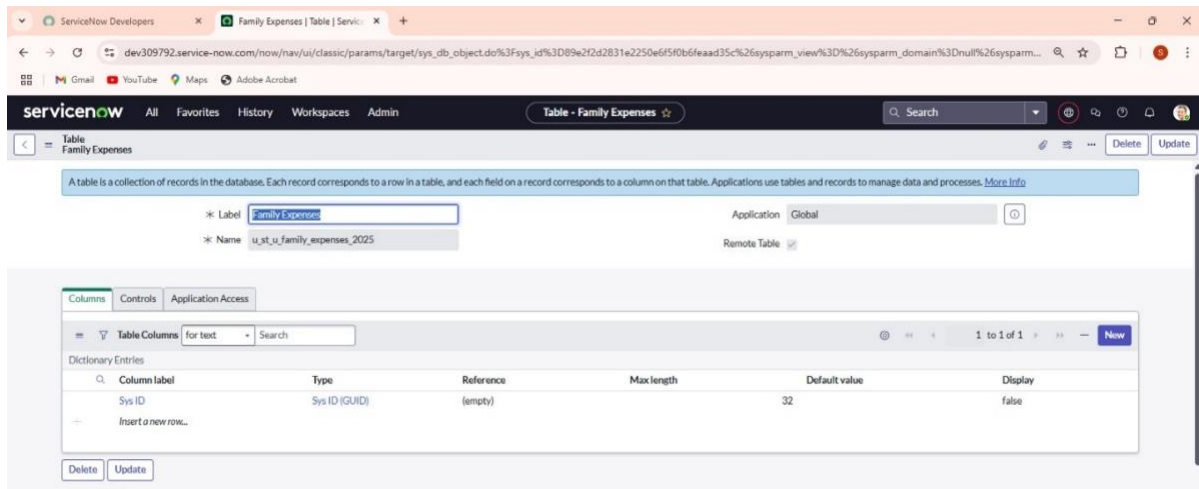
Purpose:

The purpose of creating a Family Expenses table in ServiceNow is to store, manage, and analyze financial data related to household spending in a structured and automated way.

Use:

Creating a Family Expenses table in ServiceNow (or any structured system) is essential for the accurate, automated, and organized calculation of total family expenses.

1. Enter the Details:
 Label : Family Expenses
 Name : Auto-Populated
 New menu name : Family Expenditure
2. Go to the Header and right click there>> click on Save.



Activity 2: Creation of Columns(Fields)

Purpose :

Family Expenses table, columns (fields) are created to capture specific details about each expense. These columns make it possible to calculate, categorize, and analyze expenses accurately. Family Expenses table, columns (fields) are created to capture specific details about each expense. These columns make it possible to calculate, categorize, and analyze expenses accurately.

Use:

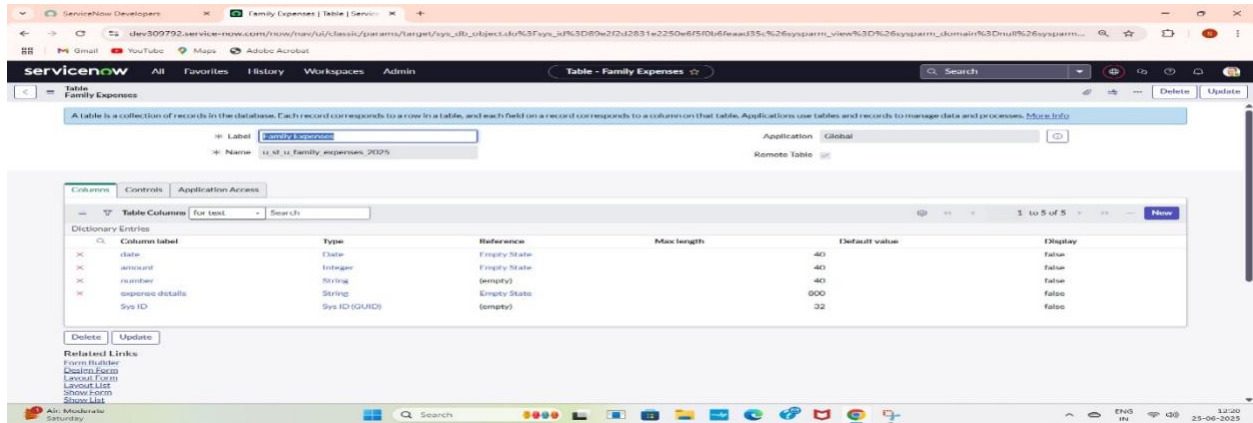
Creating columns in a Family Expenses table is essential for organizing and analyzing financial data. Each column stores a specific type of information that is used to calculate total, categorized, and time-based expenses effectively.

Steps:

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

Max length : 800

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



Activity 3: Making Number Field an Auto-Number

Purpose:

Creating daily expenses entries is essential for accurately tracking, calculating, and managing family finances on a day-to-day basis. It gives a detailed view of how money is being spent every day, helping in budgeting, analysis, and financial control.

Use:

Creating daily expense entries plays a critical role in effectively calculating and managing overall family expenses. Each daily record contributes to building a full picture of where, when, and how money is being spent.

Steps:

1. Go down and double click on Advanced view
2. In Default Value
Use dynamic default : check the box
Dynamic default value : Get Next Padded Number

3. 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 : Family Expenses

Prefix : MFE

8. Click on Submit.

Activity 4: Configure the Form

Purpose:

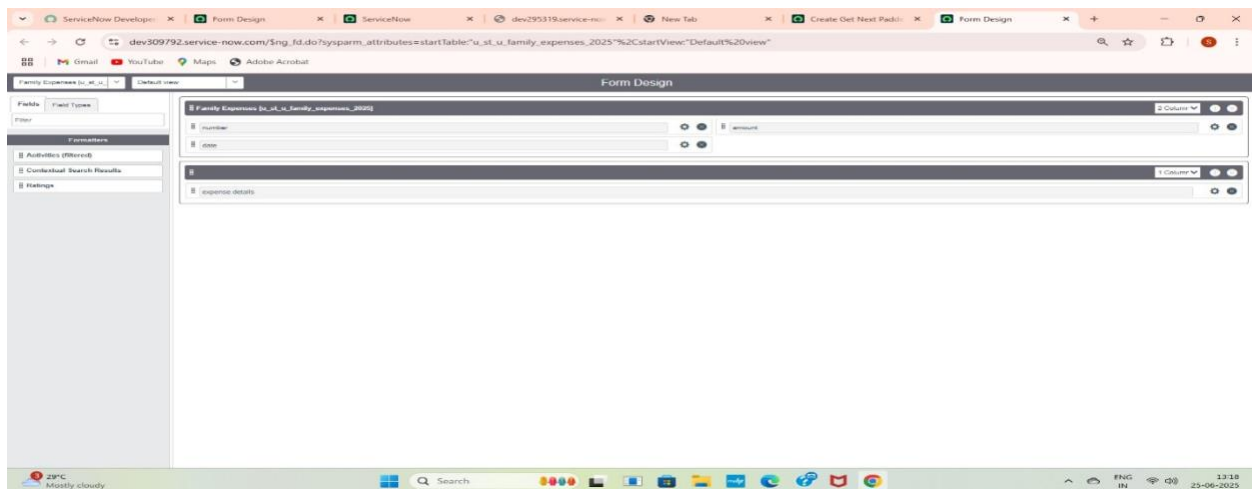
Configuring a form in ServiceNow means customizing how data is entered, displayed, and interacted with on a record (such as a family expense entry). It allows you to control what information users see and how they use the form.

Use:

Configuring the form means customizing how a form looks and works when users create or update a record in ServiceNow — such as logging a family expense.

Steps:

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 4: Creation of Table(Daily Expenses)

Activity 1: Creation of Daily Expenses Table

Purpose:

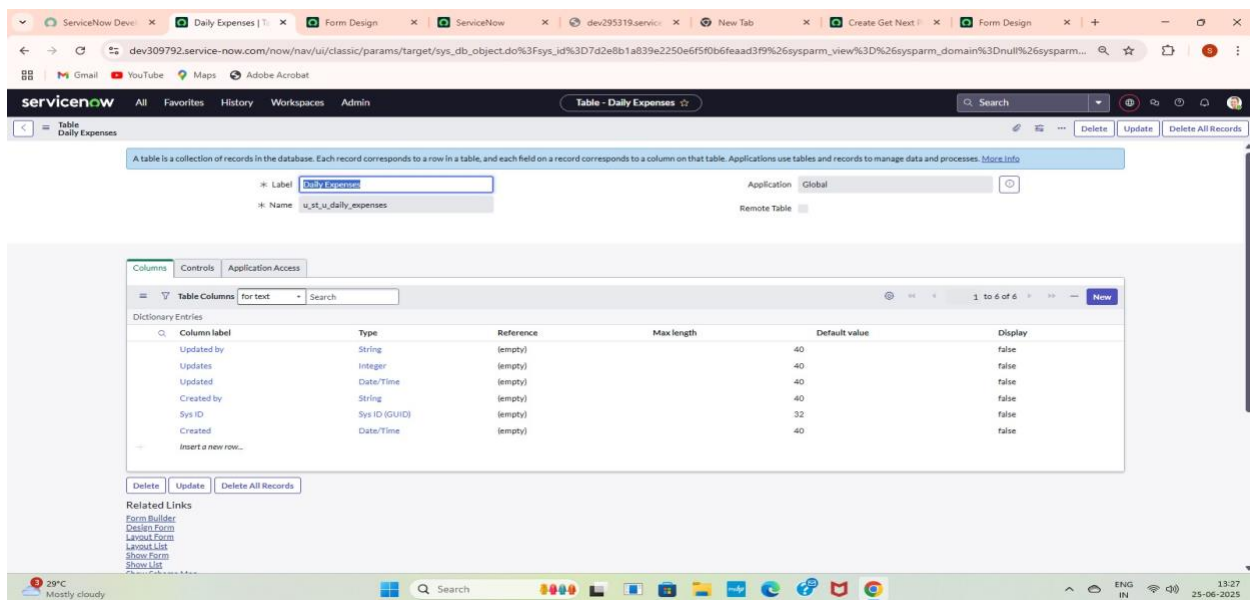
Creating daily expenses entries is essential for accurately tracking, calculating, and managing family finances on a day-to-day basis. It gives a detailed view of how money is being spent every day, helping in budgeting, analysis, and financial control.

Use:

Creating daily expense entries plays a critical role in effectively calculating and managing overall family expenses. Each daily record contributes to building a full picture of where, when, and how money is being spent.

Steps:

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.

Activity 2: Creation of Columns(Fields)

Purpose:

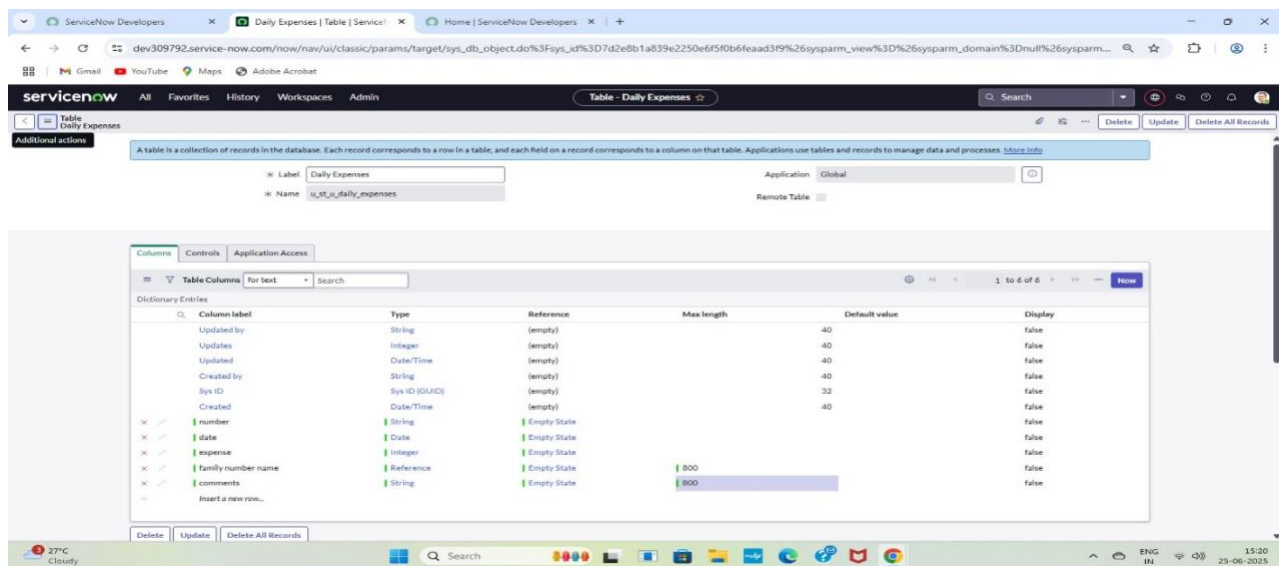
Family Expenses table, columns (fields) are created to capture specific details about each expense. These columns make it possible to calculate, categorize, and analyze expenses accurately. Family Expenses table, columns (fields) are created to capture specific details about each expense. These columns make it possible to calculate, categorize, and analyze expenses accurately.

Use:

Creating columns in a Family Expenses table is essential for organizing and analyzing financial data. Each column stores a specific type of information that is used to calculate total, categorized, and time-based expenses effectively.

Steps:

1. Near Columns Double click near insert a new row.
2. Give the details as:
 Column label : Number
 Type : String
3. Double click on insert a new row again
4. Give the details as:
 Column label : Date
 Type : Date
5. Double click on insert a new row again
6. Give the details as:
 Column label : Expense
 Type : Integer
7. Double click on insert a new row again
8. Give the details as:
 Column label : Family Member Name
 Type : Reference
 Max length : 800
9. Double click on insert a new row again
10. Give the details as:
 Column label : 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

Purpose:

Creating daily expenses entries is essential for accurately tracking, calculating, and managing family finances on a day-to-day basis. It gives a detailed view of how money is being spent every day, helping in budgeting, analysis, and financial control.

Use:

Creating daily expense entries plays a critical role in effectively calculating and managing overall family expenses. Each daily record contributes to building a full picture of where, when, and how money is being spent.

Steps:

1. double click on the number field by 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.

The screenshot shows the ServiceNow Dictionary Entry form for the 'number' field. The form is titled 'Dictionary Entry - number'. It includes a search bar and navigation tabs like 'All', 'Favorites', 'History', 'Workspaces', and 'Admin'. The main content area is divided into two sections: 'Choice List Specification' and 'Default Value'. The 'Default Value' section is currently selected, showing a text input field with the value 'Get Next Padded Number'. Below this, there are buttons for 'Delete Column' and 'Update'. The bottom of the form has a 'Related Links' section with links for 'Show Table', 'Run Point Scan', and 'Advanced view'. The ServiceNow logo and navigation bar are visible at the top.

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

Table : Family Expenses
Prefix : MFE

The screenshot shows the ServiceNow 'Number - Create MFE' form configuration page. The form is titled 'Number - Create MFE' and has a 'Submit' button. The form fields are as follows:

Field	Value
Table	Family Expenses
Prefix	MFE
Number	1,000
Application	Global
Number of digits	7

Below the form, there is a 'Related Links' section with a link to 'Show Courses'.

Activity 4: Configure the Form

Purpose:

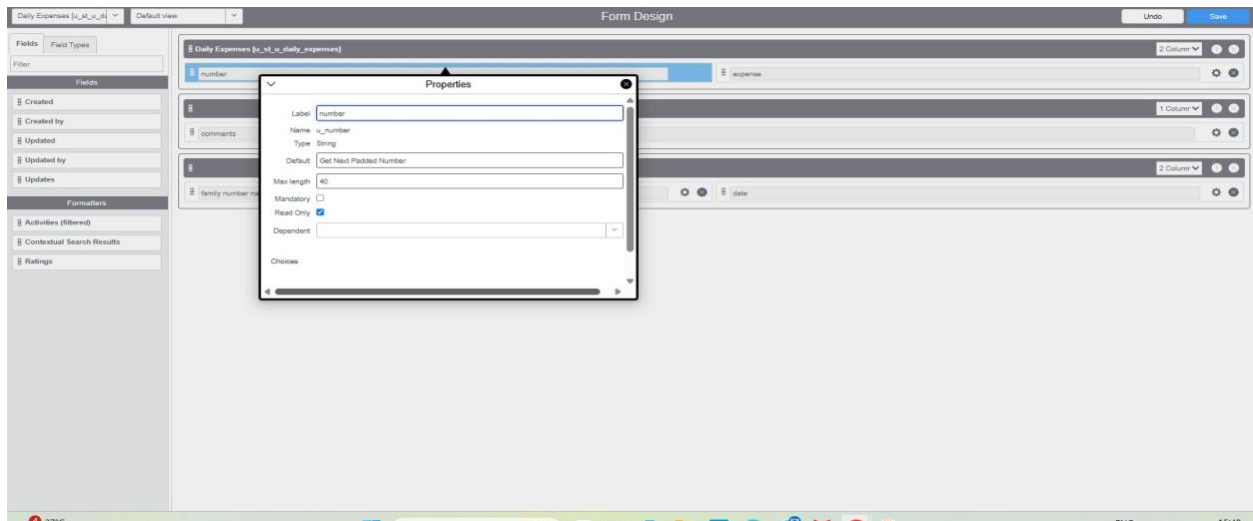
Configuring a form in ServiceNow means customizing how data is entered, displayed, and interacted with on a record (such as a family expense entry). It allows you to control what information users see and how they use the form.

Use:

Configuring the form means customizing how a form looks and works when users create or update a record in ServiceNow — such as logging a family expense.

Steps:

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, family member name mandatory field by clicking on the gear icon and checking mandatory
7. Click on Save.

Milestone 5: Creation of Relationship

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

Purpose:

In systems like ServiceNow or databases, creating relationships between tables means linking related pieces of information — like linking an expense to the person who made it or to a budget plan.

Use :

Creating relationships between tables or data fields (like between expenses and family members, or expenses and categories) helps build a connected system that makes calculating and analyzing family expenses much easier and more accurate. **Steps:**

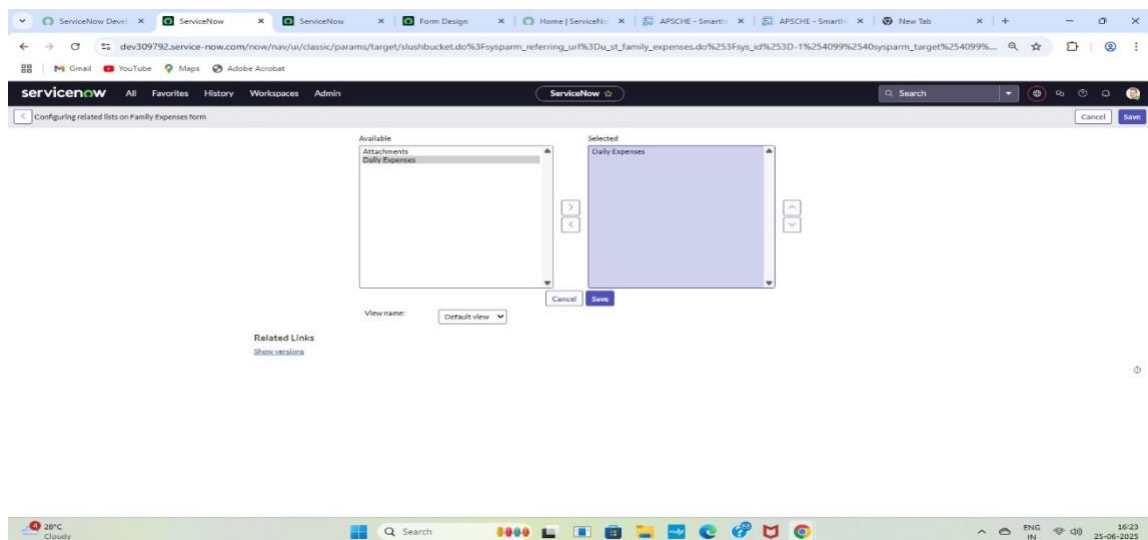
1. Go to All >> In the filter search for Relationships >> Open Relationships
2. Click on New.
3. Enter the details:
 Name : Daily Expenses
 Applies to table : Select Family Expenses

Daily Expenses : Select Daily Expenses
4. Click Save.

Milestone 6: Configuring Related List on Family Expenses

Activity 1: Configuring Related List on Family Expenses

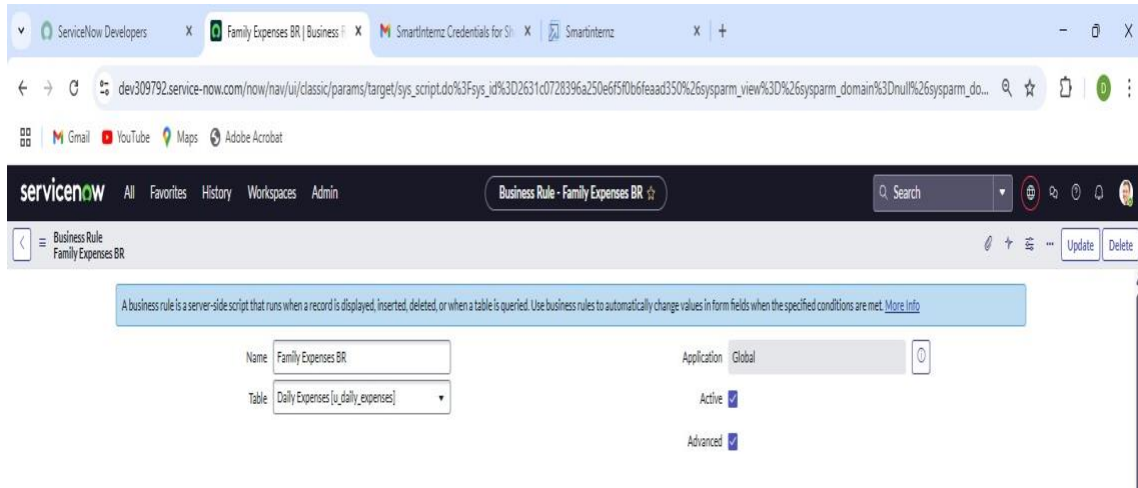
1. Go to All >> In the filter search for Family Expenses >> Open Family Expenses
2. Click on New
3. Go to the Header and right click there >> click on Configure >> Select Related Lists
4. Add Daily Expenses to the Selected Area.
5. Click on Save



Milestone 7: Creation of 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 : 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);
```

```

Script
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

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.

```

(function refineQuery(current, parent) {
// Add your code here, such as current.addQuery(field, value);
current.addQuery('u_date',parent.u_date);
current.query();

```

```

Ni}}(current, parent);

```

5.click on save

