

CALCULATING FAMILY EXPENSES USING SERVICE NOW

Project Description

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.

Project Flow

Milestone 1: Setting up service now instance.

Milestone 2: Creation of new update set.

Milestone 3: Creation of table (Family Expenses).

Milestone 4: Creation of table (Daily Expenses).

Milestone 5: Creation of relationship.

Milestone 6: Configuring related list on family expenses.

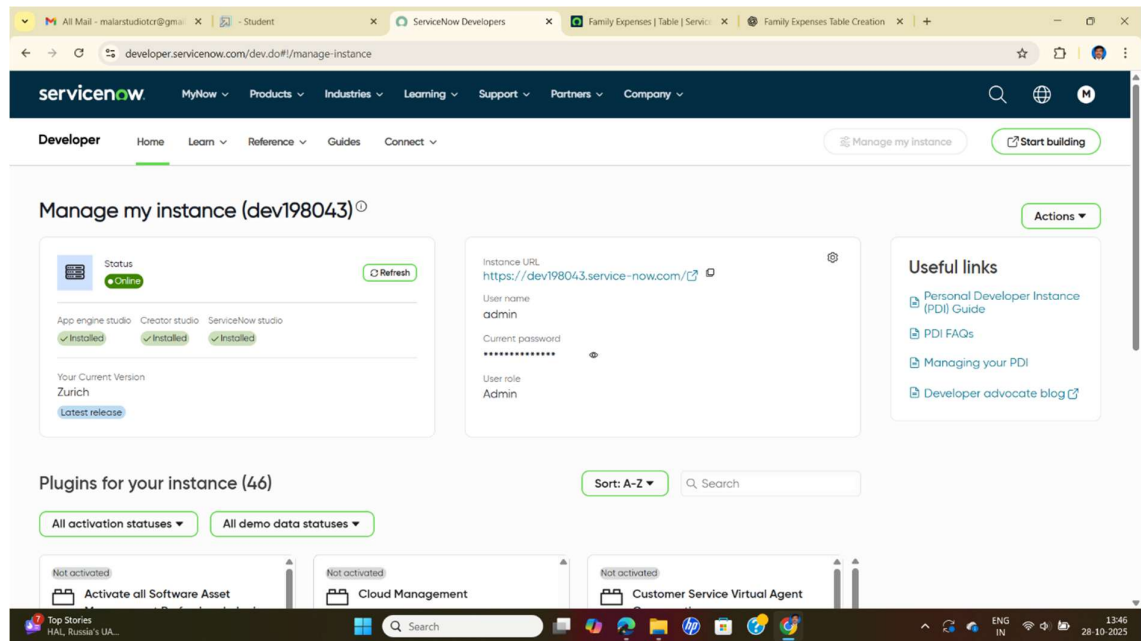
Milestone 7: Creation of business rules.

Milestone 8: Configure the relationship.

Milestone 9: Conclusion.

Milestone 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: 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

Then click on Submit and Make current.

New record

* Name	Family Expenses	Application	Global
State	In progress		
Parent			
Release date			
Description			

Submit and Make Current

Milestone 3: Creation Of Table (Family Expenses)

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.

ServiceNow recommends creating custom tables in scoped applications. To learn more about creating scoped applications, click [here](#).

A table is a collection of records in the database. Each record corresponds to a row in a table, and each field on a record corresponds to a column on that table. Applications use tables and records to manage data and processes. [More info](#)

* Label: Family Expenses
* Name: u_family_expenses
Extends table:

Application: Global
Create module: ☒
Create mobile module: ☒
Add module to menu: -- Create new --
New menu name: Family Expenditure
Remote Table: ☐

Columns Controls Application Access

Table Columns for text Search

Dictionary Entries

Column label	Type	Reference	Max length	Default value	Display
Insert a new row...					

Creation of Columns (Fields)

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

7. Double click on insert a new row again

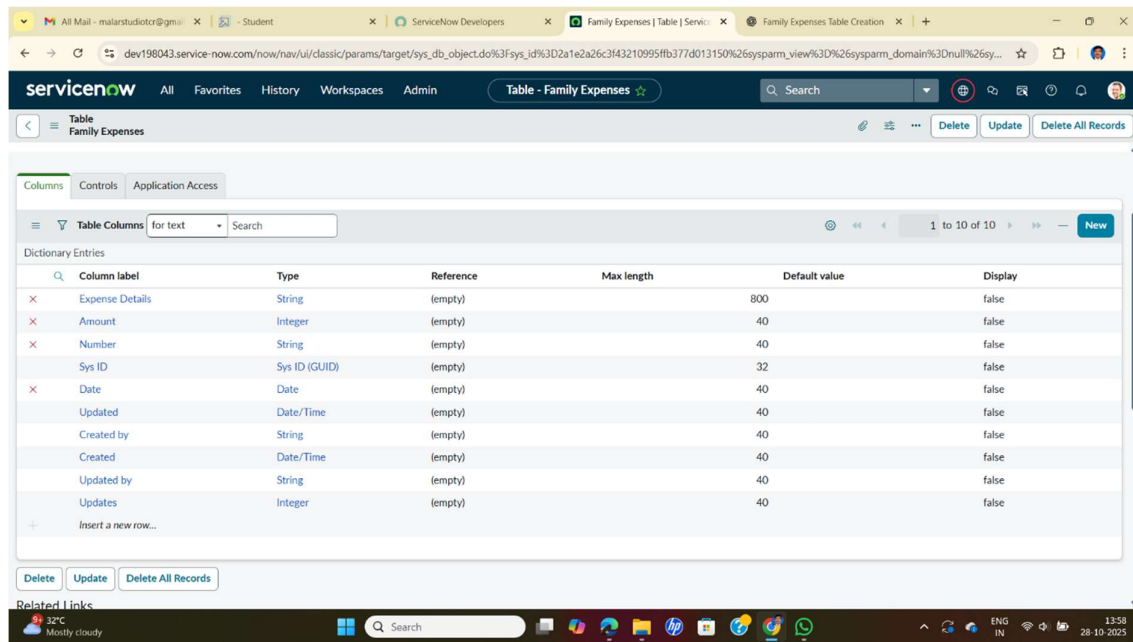
8. Give the details as:

Column label : Expense Details

Type : String

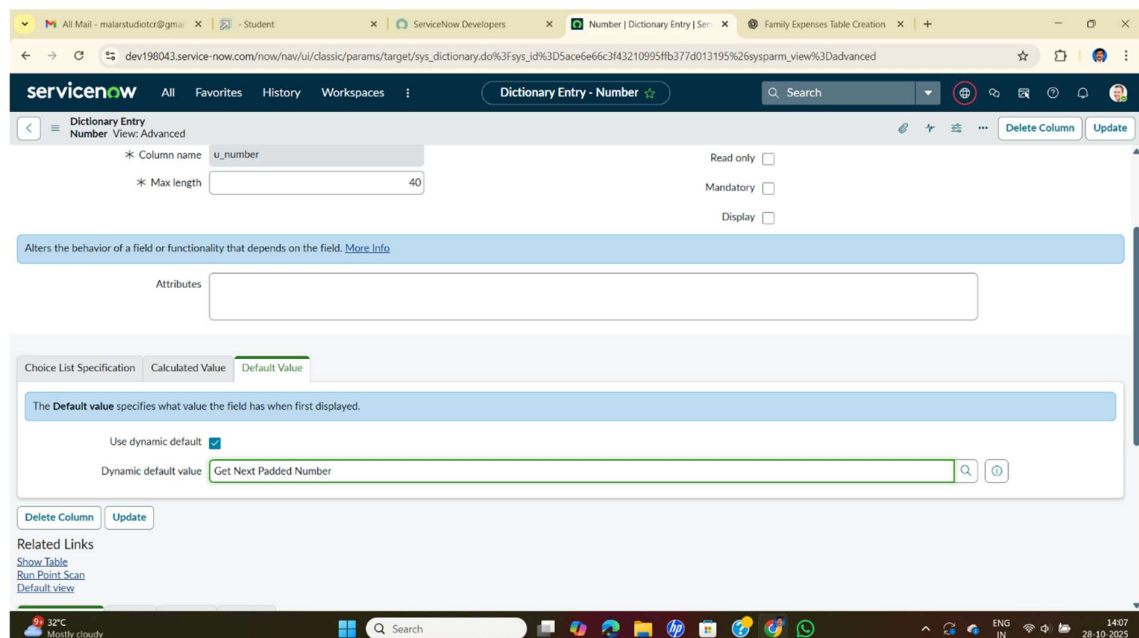
Max length : 800

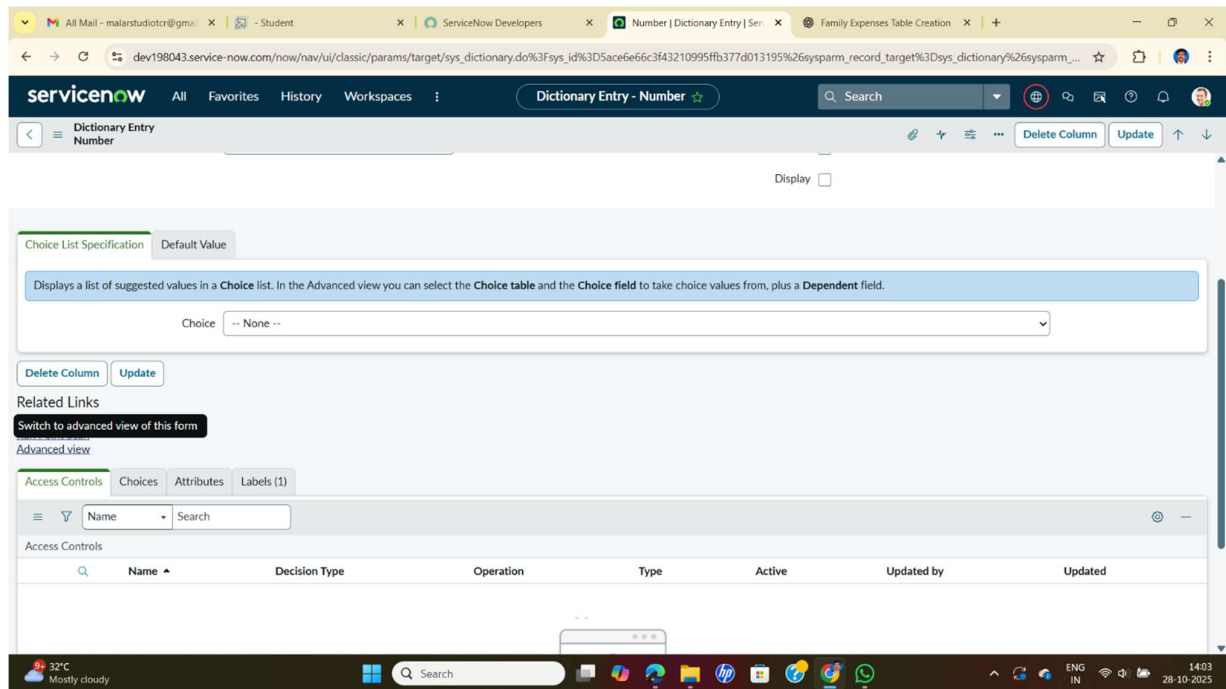
9. Go to the Header and right click there>> click on Save.



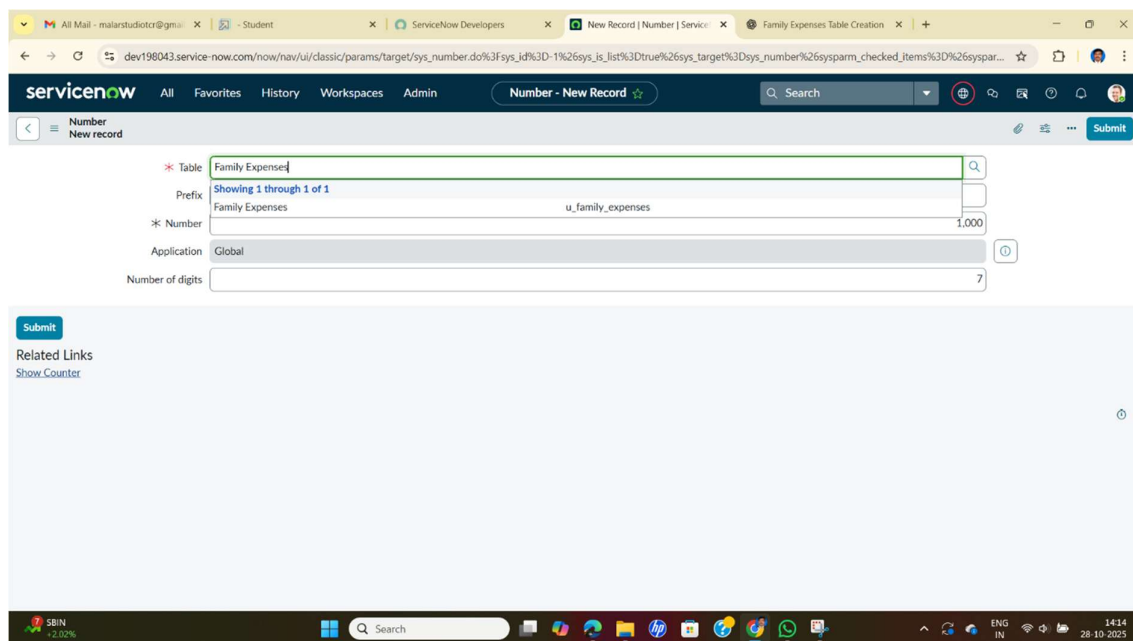
Making Number Field an Auto-Number

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.





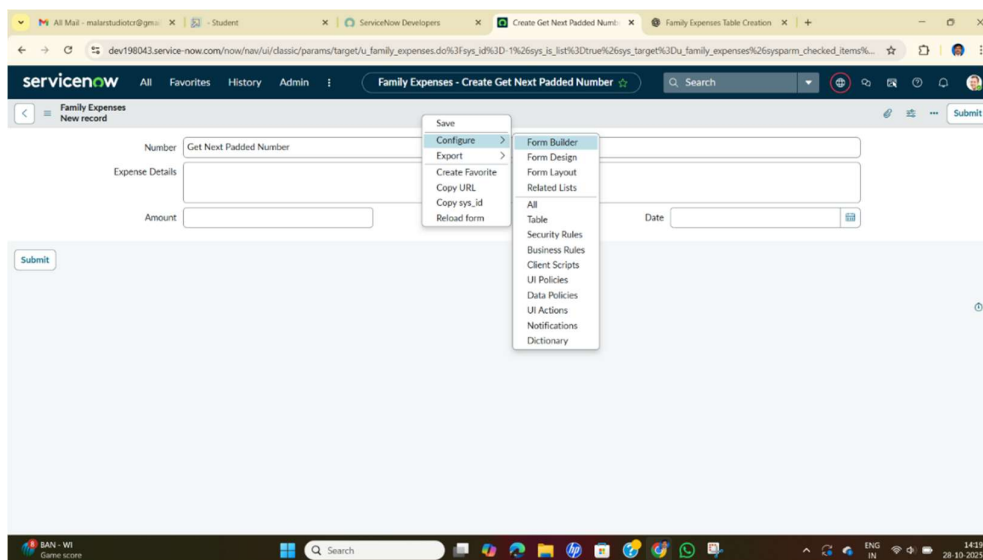
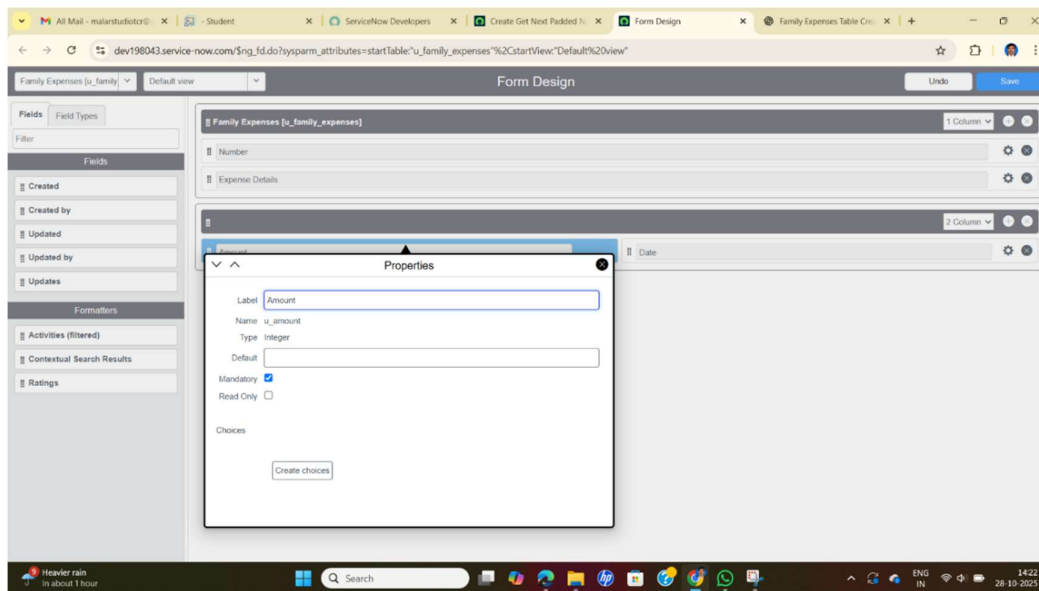
5. Go to All >> In the filter search for Number Maintenance >> select Number Maintenance
6. Click on New.
7. Enter the below Details:
 Table : Family Expenses
 Prefix : MFE



8. Click on Submit.

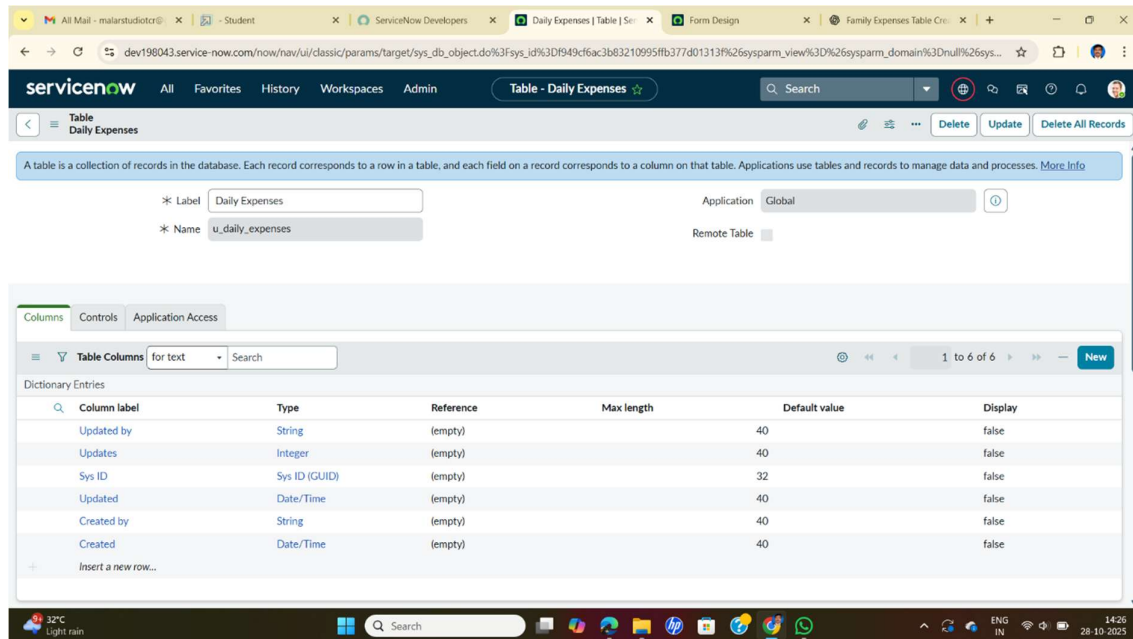
Configure the Form

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 4: Creation Of Table (Daily Expenses)

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 Columns(Fields)

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.

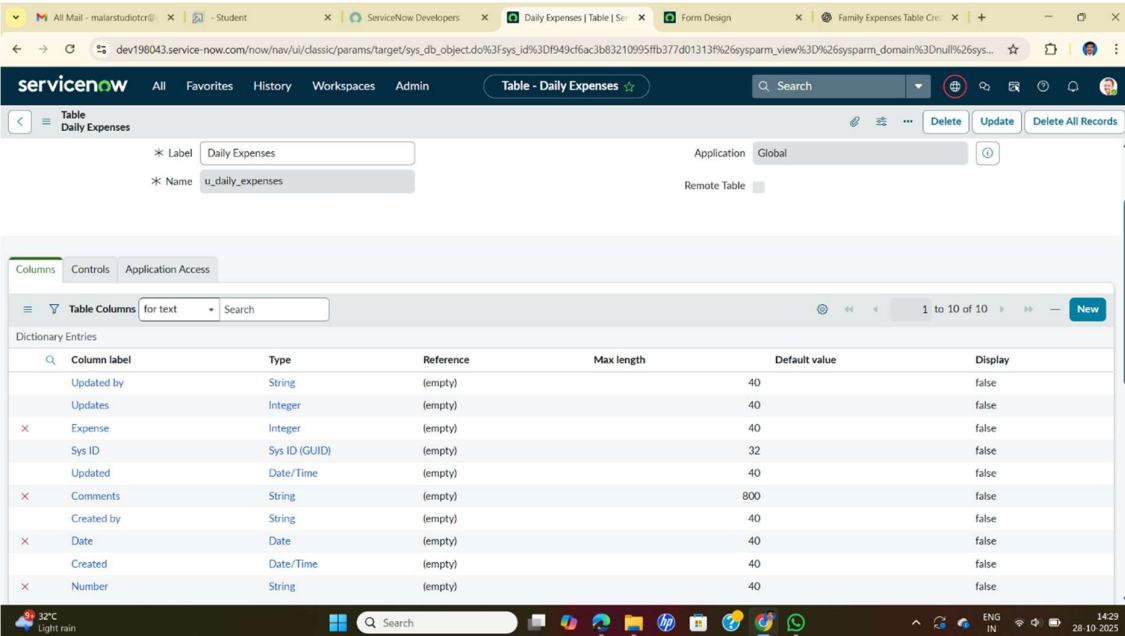
10. Give the details as:

Column label : Comments

Type : String

Max length : 800

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



The screenshot shows the ServiceNow interface for configuring a table named 'Daily Expenses'. The 'Columns' tab is selected, showing a list of columns. The 'Comments' column is highlighted, indicating a max length of 800. The interface includes a search bar, a 'Table Columns' dropdown, and a 'Dictionary Entries' section.

Column label	Type	Reference	Max length	Default value	Display
Updated by	String	(empty)	40		false
Updates	Integer	(empty)	40		false
Expense	Integer	(empty)	40		false
Sys ID	Sys ID (GUID)	(empty)	32		false
Updated	Date/Time	(empty)	40		false
Comments	String	(empty)	800		false
Created by	String	(empty)	40		false
Date	Date	(empty)	40		false
Created	Date/Time	(empty)	40		false
Number	String	(empty)	40		false

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 : Family Expenses
Prefix : MFE
8. Click on Submit.

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

ServiceNow

Table - New Record

ServiceNow recommends creating custom tables in scoped applications. To learn more about creating scoped applications, click [here](#).

A table is a collection of records in the database. Each record corresponds to a row in a table, and each field on a record corresponds to a column on that table. Applications use tables and records to manage data and processes. [More Info](#)

* Label: Daily Expenses

* Name: u_daily_expenses

Table name u_daily_expenses is already in use

Extends table: [Search]

Application: Global

Create module: ☒

Create mobile module: ☒

Add module to menu: -- Create new --

New menu name: Family Expenditure

Remote Table: ☐

Columns

Column label	Type	Reference	Max length	Default value	Display
Insert a new row...					

Form Design

Daily Expenses [u_daily_expenses]

Number

Date

Expense

Comments

Family Member Name

Milestone 5: Creation Of Relationship

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.

Relationship - Daily Expenses

Name:

Application: Global

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 ☐ Turn on ECMAScript 2021 (ES12) mode

```

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

Run Query Diagnostics Update Delete

Related Links
[Run Point Scan](#)

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
4. Add Daily Expenses to the Selected Area.
5. Click on Save

Configuring related lists on Family Expenses form

Available: Attachments

Selected: Daily Expenses

View name: Default view

Cancel Save

Related Links
[Show versions](#)
[Related list performance diagnostics](#)

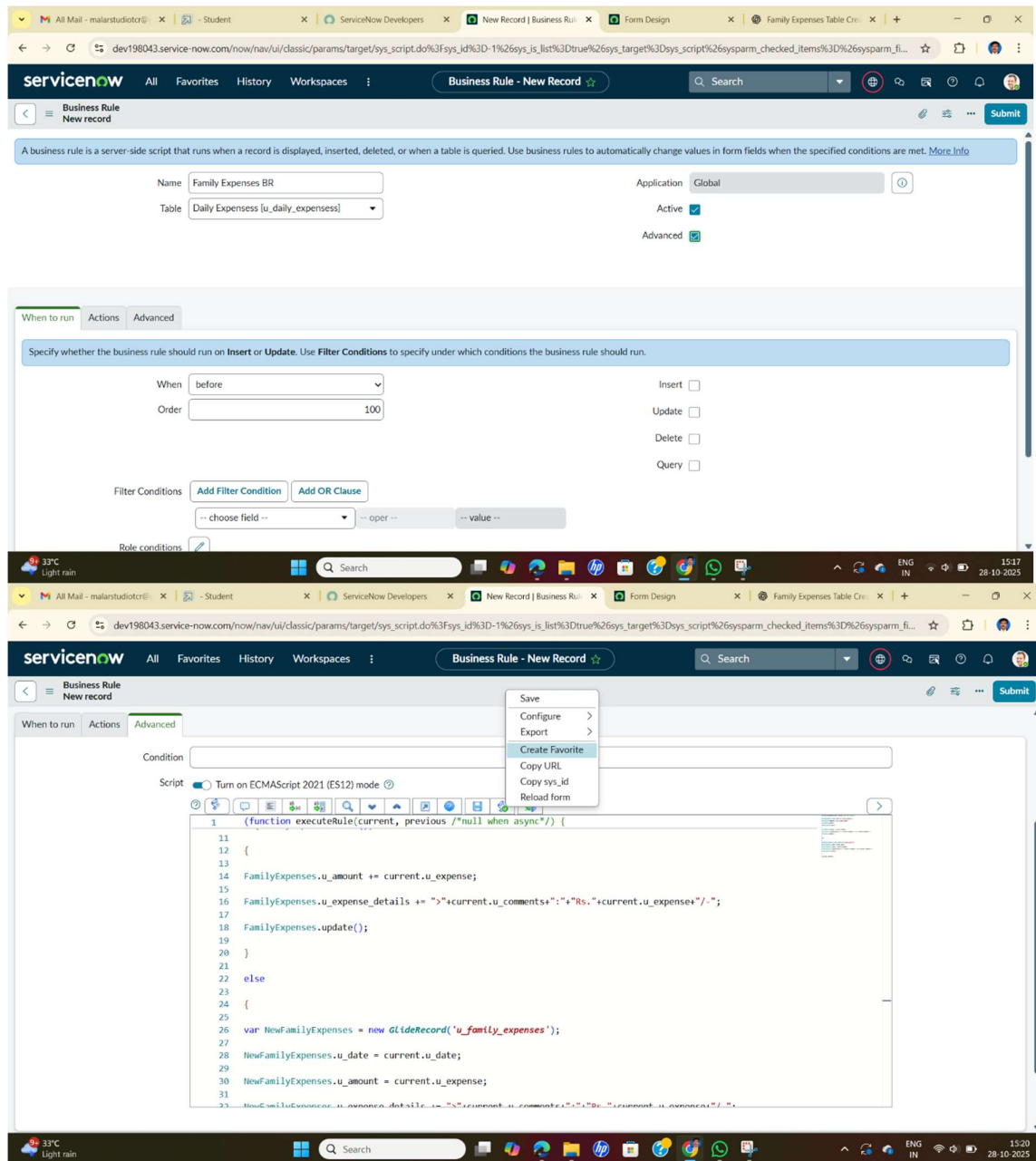
Milestone 7: Creation of business rules

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.



Milestone 8: Configure the relationship

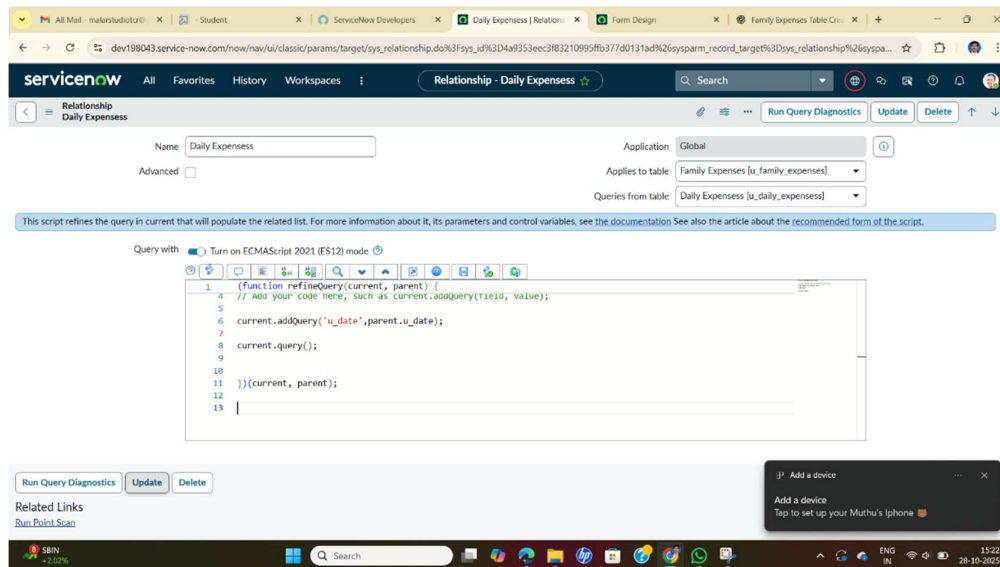
1. Go to All >> In the filter search for Relationships >> Open Relationships.
2. In that, open Daily Expenses Relationship.
3. For Applies to table : Select Family Expenses.
4. In Query with : write the below Query.

```

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

```

- })(current, parent);
5. Click on Update.



Milestone 9: Conclusion

The project “Calculating Family Expenses Using ServiceNow” successfully demonstrates how the ServiceNow platform can be utilized to automate and streamline financial tracking within a family setting. By creating and linking the Family Expenses and Daily Expenses tables, users can efficiently record, categorize, and monitor daily spending. The use of business rules ensures automatic updates and consistency between related records, while the relationship configuration provides a clear and connected data view. Overall, the project highlights the flexibility and power of ServiceNow in building practical applications that promote better financial management and decision-making.