

# Calculating Family Expenses using Service Now

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.

## 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.

## 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.

The screenshot shows the ServiceNow interface for creating a new update set. The browser address bar displays the URL: dev224791.servicenow.com/now/nav/ui/classic/params/target/sys\_update\_set.do%3Fsys\_id%3D2d627a59c3807210995edf0d050131ba%26sys... The page title is "Update Set - Family Expenses". The form contains the following fields:

- \* Name: Family Expenses (highlighted with a blue border)
- State: In progress (dropdown menu)
- Parent: (empty field with a search icon)
- Release date: (empty field with a calendar icon)
- Install date: (empty field)
- Installed from: (empty field)
- Description: (empty text area)
- Application: Global (dropdown menu)
- Created: 2025-09-16 20:19:51
- Created by: admin
- Merged to: (empty field)

At the bottom left, there is an "Update" button. Below it, the "Related Links" section includes "Merge With Another Update Set" and "Scan Update Set". At the very bottom, a navigation bar shows "Customer Updates (58)", "Update Set Logs", "Child Update Sets", and "Install History".

## 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

## 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

**servicenow** All Favorites History Workspaces Admin **Table - Family Expenses**

Search [ ] Delete Update Delete All Records

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  Application

\* Name  Remove Table

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**Columns** Controls Application Access

**Table Columns** for text Search 1 to 10 of 10

Column label	Type	Reference	Max length	Default value	Display
Updates	Integer	(empty)	40		false
Created by	String	(empty)	40		false
Updated by	String	(empty)	40		false
x Amount	Integer	(empty)	40		false
x Number	String	(empty)	40	javascript:getNextObj().NumberPadded();	false
Sys ID	Sys ID (GUID)	(empty)	32		false
x Date	Date	(empty)	40		false
Updated	Date/Time	(empty)	40		false
Created	Date/Time	(empty)	40		false
x Expense Details	String	(empty)	800		false
+ Insert a new row...					

Delete Update Delete All Records

# 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.

The screenshot shows the 'Dictionary Entry - Number' form in the 'Advanced' view. The form is for a field named 'u\_number' of type 'Number' from the 'Family Expenses' table. The 'Default Value' tab is selected, showing the 'Use dynamic default' checkbox checked and the 'Dynamic default value' set to 'Get Next Padded Number'. Other tabs include 'Choice List Specification' and 'Calculated Value'. The form also has fields for 'Table', 'Type', 'Column label', 'Column name', 'Max length', 'Application', 'Active', 'Function field', 'Read only', 'Mandatory', and 'Display'.

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

5. Click on New.
6. Enter the below Details:  
Table : Family Expenses  
Prefix : MFE

The screenshot shows the 'Number - MFE' form. The 'Table' field is set to 'Family Expenses'. The 'Prefix' field is set to 'MFE'. The 'Number' field is set to '1,000'. The 'Application' field is set to 'Global'. The 'Number of digits' field is set to '7'. The form has 'Update' and 'Delete' buttons at the bottom. Below the buttons are 'Related Links' and a 'Show Counter' link.

# 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.

The screenshot shows the ServiceNow Form Design interface for the 'Family Expenses [u\_family\_expenses]' table. The left sidebar has two tabs: 'Fields' and 'Field Types'. Under 'Fields', there is a 'Filter' section and a list of fields: 'Created', 'Created by', 'Updated', 'Updated by', and 'Updates'. Below these are 'Formatters' including 'Activities (filtered)', 'Contextual Search Results', and 'Ratings'. The main area displays the form design with two columns. The first column is titled 'Family Expenses [u\_family\_expenses]' and contains three fields: 'Number', 'Date', and 'Amount'. The second column is titled 'Expense Details' and contains one field: 'Expense Details'. The interface also shows a 'Default view' dropdown and a 'Form Design' header.

## Creation of Daily Expenses Table

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

## 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

dev224791.service-now.com/now/nav/ui/classic/params/target/sys\_db\_object.do%3Fsys\_id%3D70345f55c3447210995edf0d05013168%2...

servicenow All Favorites History Table - Daily Expenses Search

Table Daily Expenses Delete Update Delete All Records

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 Application Global ⓘ

\* Name u\_daily\_expenses Remote Table ☐

Columns Controls Application Access

Table Columns for text Search 1 to 11 of 11 New

Dictionary Entries

Column label	Type	Reference	Max length	Default value	Display
Number	String	(empty)	40	javascript:getNextObjNumberPadded();	false

dev224791.service-now.com/now/nav/ui/classic/params/target/sys\_db\_object.do%3Fsys\_id%3D70345f55c3447210995edf0d05013168%26sys...

servicenow All Favorites History Table - Daily Expenses Search

Table Columns for text Search 1 to 11 of 11 New

Dictionary Entries

Column label	Type	Reference	Max length	Default value	Display
Number	String	(empty)	40	javascript:getNextObjNumberPadded();	false
Expense	Integer	(empty)	40		false
Updated by	String	(empty)	40		false
Updates	Integer	(empty)	40		false
Created by	String	(empty)	40		false
Comments	String	(empty)	800		false
Family Member Name	Reference	User	32		false
Sys ID	Sys ID (GUID)	(empty)	32		false
Date	Date	(empty)	40		false
Created	Date/Time	(empty)	40		false
Updated	Date/Time	(empty)	40		false

Insert a new row...

## 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

dev224791.service-now.com/now/nav/ui/classic/params/target/sys\_dictionary.do%3Fsys\_id%3D09d4db95c3447210995edf0d050131f1%...

servicenow All Favorites History Workspaces Admin Dictionary Entry - Number Search

Dictionary Entry Number View: Advanced\*

A dictionary entry manages how ServiceNow stores data in tables and fields (columns). For new dictionary entries, select a **Table** and the field **Type** of the new column. Also enter a column label, which becomes the field label, and the column name. If necessary, set a **Max length** for text String type fields, make the field **Mandatory** to save a record, and make the field a **Display Value** for reference fields so it appears on records that reference this table. [More info](#)

\* Table: Daily Expenses [u\_daily\_expenses]

\* Type: String

\* Column label: Number

\* Column name: u\_number

\* Max length: 40

Application: Global

Active: ☒

Function field: ☐

Read only: ☒

Mandatory: ☐

Display: ☐

Attributes

Alters the behavior of a field or functionality that depends on the field. [More info](#)

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

Related Links  
[Show Table](#)

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

- Click on New.
- Enter the below Details:  
Table : Daily Expenses  
prefix : DFE

dev224791.service-now.com/now/nav/ui/classic/params/target/sys\_number.do%3Fsys\_id%3Dcad69b59c3447210995edf0d05013131%26...

**servicenow** All Favorites History : Number - DFE Search

Number DFE

\* Table: Daily Expenses

Prefix: DFE

\* Number: 1,000

Application: Global

Number of digits: 7

Update Delete

Related Links  
[Show Counter](#)

## 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.

dev224791.service-now.com/\$ng\_fd.do?sysparm\_attributes=startTable:"u\_daily\_expenses"%2CstartView:"Default%20view"

Daily Expenses [u\_daily\_ex] Default view Form Design

Fields Field Types

Filter

Fields

- Created
- Created by
- Updated
- Updated by
- Updates

Formatters

- Activities (filtered)
- Contextual Search Results
- Ratings

Daily Expenses [u\_daily\_expenses] 2 Column

- Number (Read Only)
- Family Member Name (Mandatory)
- Date (Mandatory)
- Expense (Mandatory)

1 Column

- Comments

## Creation of Relationships

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.

dev224791.service-now.com/now/nav/ui/classic/params/target/sys\_relationship.do%3Fsys\_id%3D3d199f1dc3447210995edf0d050131ba...

**servicenow** All Favorites History Workspaces Relationship - Daily Expenses Search

Relationship Daily Expenses Run Query Diagnostics Update Delete

Name:  Application:

Advanced ☐ Applies to table:  Queries from table:

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

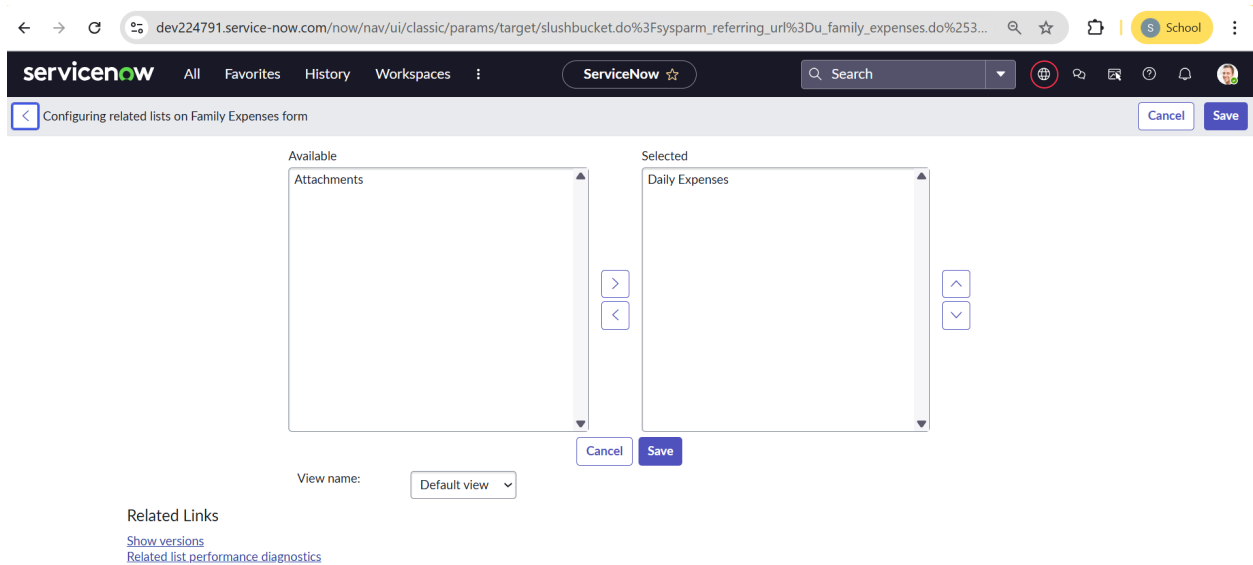
```
1 (function refineQuery(current, parent) {
2
3
4 // Add your code here, such as current.addQuery(field, value);
5
6 current.addQuery('u_date', parent.u_date);
7
8 current.query();
9
10
11 })(current, parent);
```

Run Query Diagnostics Update Delete

## 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





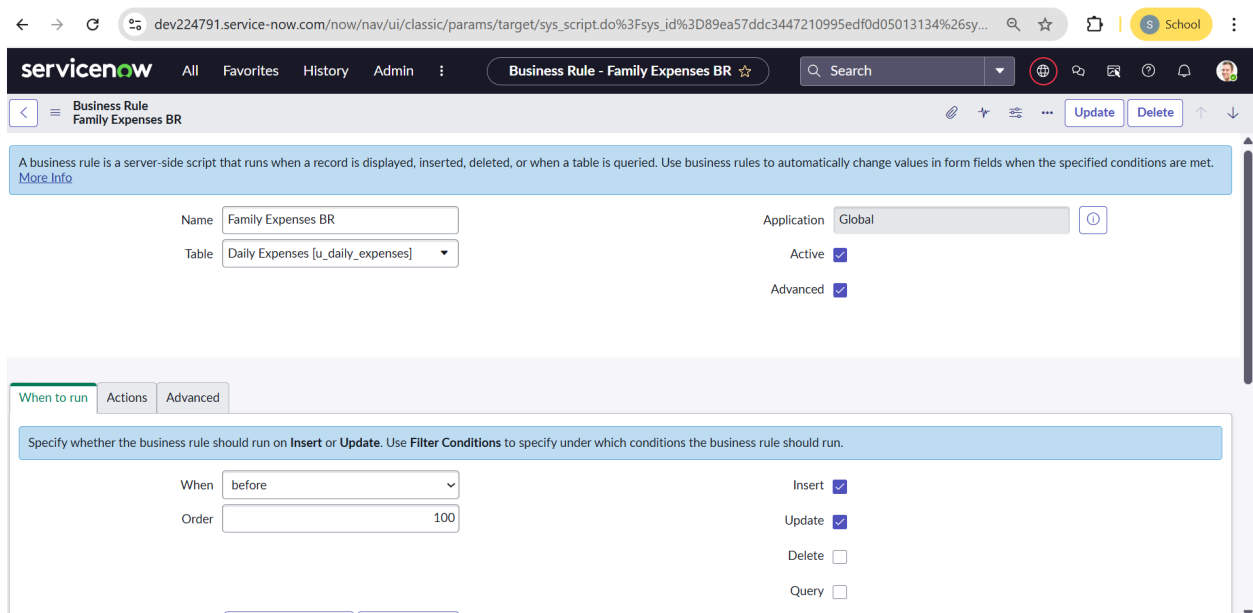
## Creation of Business Rules

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

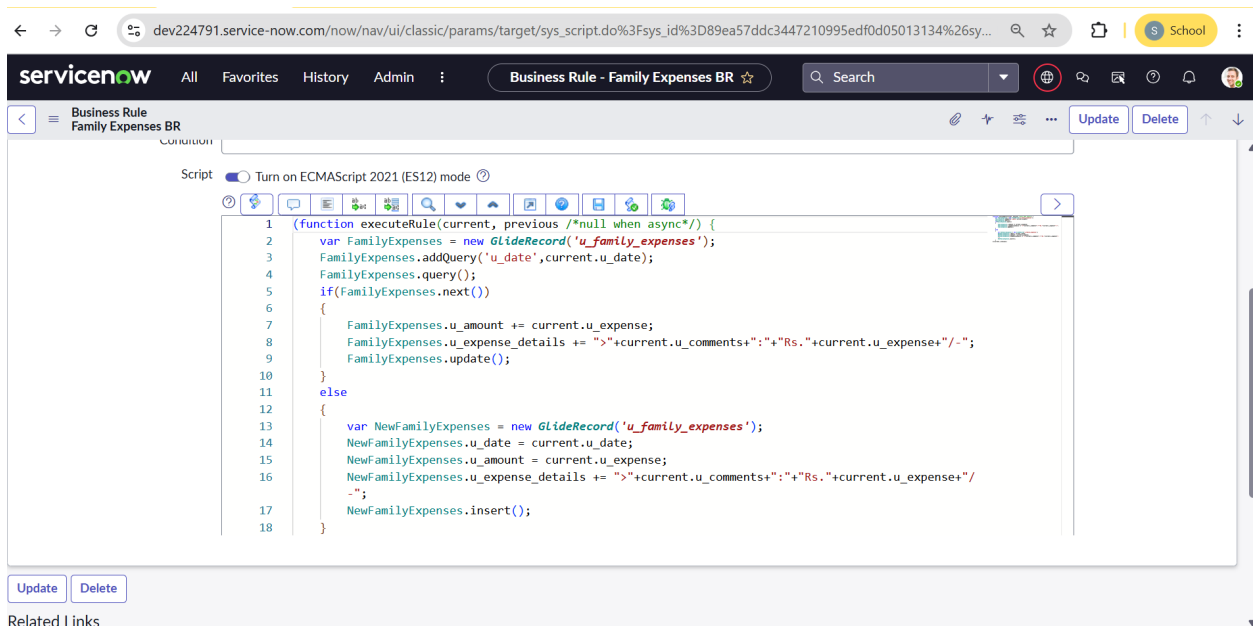
Check Advanced



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.

# 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.

dev224791.service-now.com/now/nav/ui/classic/params/target/sys\_relationship.do%3Fsys\_id%3D3d199f1dc3447210995edf0d050131ba...

servicenow All Favorites History Workspaces Relationship - Daily Expenses Search

Relationship Daily Expenses Run Query Diagnostics Update Delete

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 ☒ Turn on ECMAScript 2021 (ES12) mode

```
1 (function refineQuery(current, parent) {  
2  
3  
4 // Add your code here, such as current.addQuery(field, value);  
5  
6 current.addQuery('u_date',parent.u_date);  
7  
8 current.query();  
9  
10  
11 })(current, parent);
```

Run Query Diagnostics Update Delete

## Conclusion

In conclusion, implementing the "Calculation of Family Expenses Using ServiceNow" project offers numerous benefits to the household. By leveraging the robust capabilities of ServiceNow, family members can efficiently submit, track, and manage their expenses in a centralized and streamlined manner.

I have created a record in daily Expenses ,it is now also showing on family expenses table due to a relationship between two tables.

dev224791.service-now.com/now/nav/ui/classic/params/target/u\_daily\_expenses\_list.do%3Fsysparm\_userpref\_module%3D6fc49b95c344...

School

servicenow

All
Favorites
History
Workspaces

Daily Expenses

Search

Daily Expenses
Number
Search

Actions on selected rows...
New

All

	Number	Comments	Date	Expense	Family Member Name
<input type="checkbox"/>	DFE0001007	food	2025-09-18	200	Abel Tuter

dev224791.service-now.com/now/nav/ui/classic/params/target/u\_family\_expenses\_list.do%3Fsysparm\_userpref\_module%3D3dbef299c3c...

School

servicenow

All
Favorites
History
Workspaces

Family Expenses

Search

Family Expenses
Number
Search

Actions on selected rows...
New

All

	Number	Amount	Date	Expense Details
<input type="checkbox"/>	MFE0001013	200	2025-09-18	> food:Rs.200/-