

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 header bar includes the ServiceNow logo, navigation links (All, Favorites, History), and a search bar. The main title is 'Update Set - Create New Update Set'. Below this, there's a sub-header 'Update Set New record'. The form fields are as follows:

- Name:** Family Expenses
- State:** In progress (dropdown menu)
- Parent:** (empty field with a search icon)
- Release date:** (empty field with a calendar icon)
- Description:** (empty text area)
- Application:** Global

At the bottom of the form, there are two buttons: 'Submit' and 'Submit and Make Current'.

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

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.

servicenow All Favorites History Dictionary Entry - Number Search

Dictionary Entry Number View: Advanced Delete Column Update

Attributes

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

4. 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

servicenow All Favorites History Number - New Record Search

Number New record Submit

* Table Family Expenses

Prefix MFE

* Number 1,000

Application Global

Number of digits 7

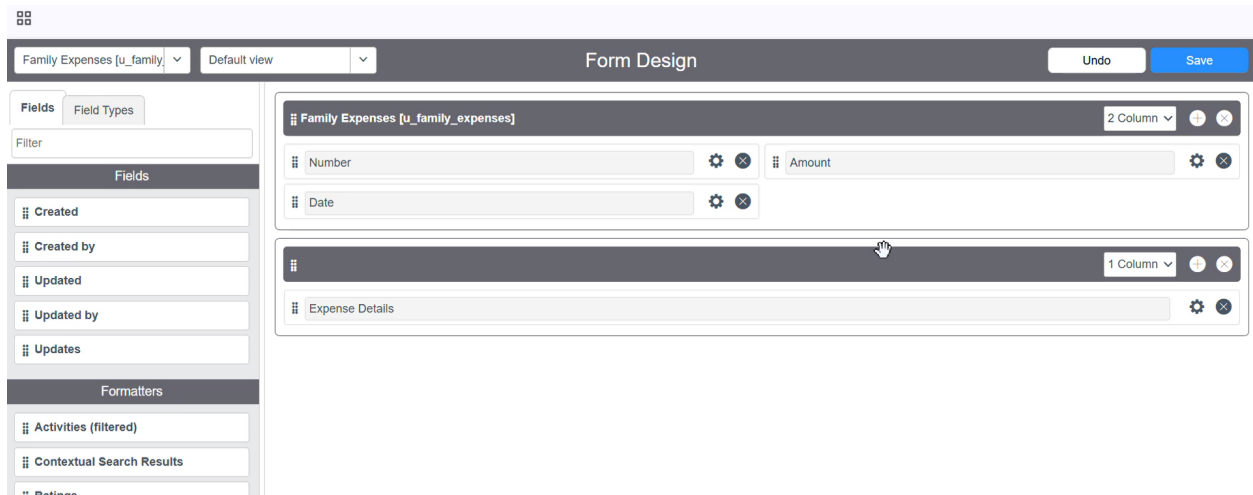
Submit

Related Links
[Show Counter](#)

9. 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.

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

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.

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 'servicenow' interface for 'Dictionary Entry - Number'. The top navigation bar includes 'All', 'Favorites', 'History', and a search bar. The main header indicates 'Dictionary Entry - Number' with a star icon and a search bar. Below the header, there are tabs for 'Choice List Specification', 'Calculated Value', and 'Default Value'. The 'Default Value' tab is active, showing a message: 'The Default value specifies what value the field has when first displayed.' Below this message, there is a checkbox for 'Use dynamic default' which is checked. A text field for 'Dynamic default value' contains 'Get Next Padded Number'. At the bottom of the form, there are buttons for 'Delete Column' and 'Update'.

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

The screenshot shows the 'servicenow' interface for 'Number - New Record'. The top navigation bar includes 'All', 'Favorites', 'History', and a search bar. The main header indicates 'Number - New Record' with a star icon and a search bar. Below the header, there are buttons for 'Delete Column' and 'Update'. The form contains several fields: 'Table' (Daily Expenses), 'Prefix' (DFE), 'Number' (1,000), 'Application' (Global), and 'Number of digits' (7). At the bottom, there is a 'Submit' button and a 'Related Links' section with a link to 'Show Counter'.

9. 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.

The screenshot shows the 'Form Design' interface for a table named 'Daily Expenses [u_daily_exp]'. The interface has a top bar with the table name, a 'Default view' dropdown, and 'Undo' and 'Save' buttons. On the left, there is a sidebar with 'Fields' and 'Field Types' tabs. Under 'Fields', there is a 'Filter' section and a list of fields: 'Created', 'Created by', 'Updated', 'Updated by', and 'Updates'. Below this is a 'Formatters' section with 'Activities (filtered)', 'Contextual Search Results', and 'Patterns'. The main area shows the form layout. The first section is titled 'Daily Expenses [u_daily_expenses]' and has a '2 Column' layout. It contains two fields: 'Number' and 'Date'. The second section is titled with a plus icon and has a '1 Column' layout. It contains two fields: 'Comments' and 'Expense'. Each field has a gear icon for configuration and a close icon.

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.

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.

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.

The screenshot shows the ServiceNow interface for configuring related lists. The top navigation bar includes the ServiceNow logo, 'All', 'Favorites', 'History', 'Admin', a search bar, and user profile icons. The main header indicates the current task: 'Configuring related lists on Family Expenses form'. Below this, there are two columns: 'Available' and 'Selected'. The 'Available' column contains the item 'Attachments'. The 'Selected' column contains the item 'Daily Expenses'. Between the columns are arrows for moving items. At the bottom of the configuration area, there are 'Cancel' and 'Save' buttons.

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);

```

```

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 + ":" +
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 + ":"
18         NewFamilyExpenses.insert();
19     }
20
21 })(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.