

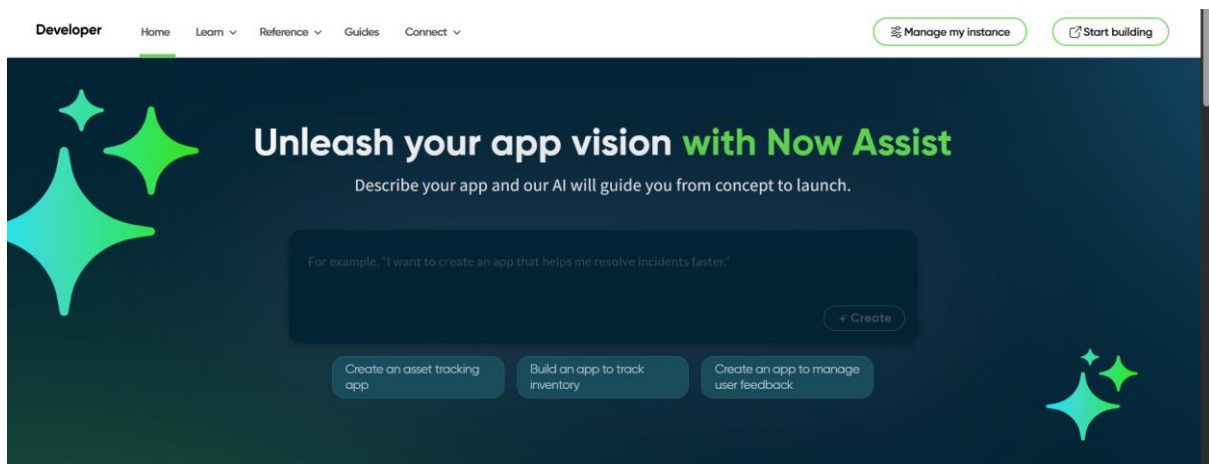
Calculating Family Expenses using Service Now

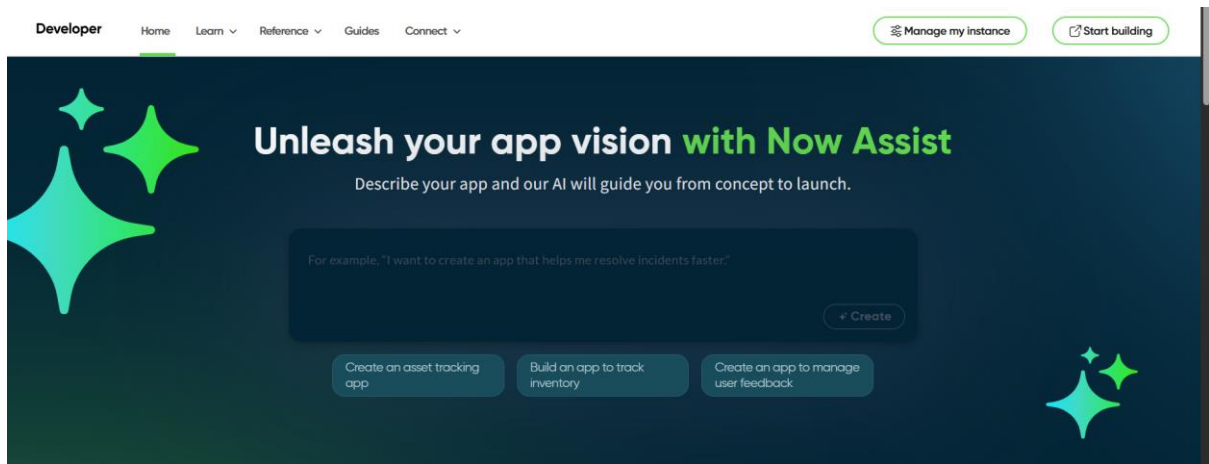
1. Setting up ServiceNow Instance

Sign up for a developer account at developer.servicenow.com.

Go to Personal Developer Instance → Request Instance and fill in the required details.

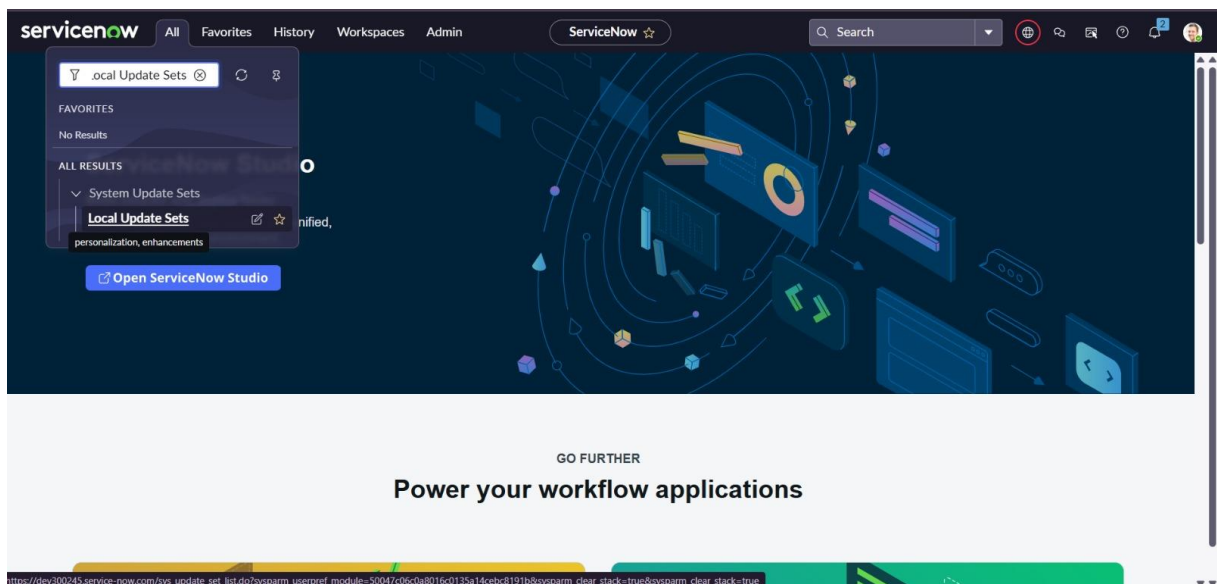
Once your instance is ready, log in using the provided credentials to access ServiceNow.





2. Creation of New Update Set

In the filter navigator, search Local Update Set → click New.



Enter Name: Family Expenses, then click Submit and Make Current.

The screenshot shows the 'Update Set' form in the ServiceNow Developer portal. The form is titled 'Update Set' and 'Family Expenses'. It has several fields: 'Name' (Family Expenses), 'State' (In progress), 'Parent' (empty), 'Release date' (empty), 'Install date' (empty), 'Installed from' (empty), 'Description' (empty), 'Application' (Global), 'Created' (2025-10-29 22:10:32), 'Created by' (admin), and 'Merged to' (empty). There are 'Update' and 'Delete' buttons at the bottom left and top right.

3. Creation of Family Expenses Table

In the filter navigator, search Tables → click New.

Enter Label: Family Expenses, Menu Name: Family Expenditure, then right-click the header and select Save.

Table Family_Expenses

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

Application: Global

Remote Table:

4. Creation of Columns (Fields)

Add new rows under **Columns** with the following details:

- **Number** – String
- **Date** – Date
- **Amount** – Integer
- **Expense Details** – String (Max length: 800)

Table Family_Expenses

* Label: Family_Expenses

* Name: u_family_expenses

Application: Global

Remote Table:

Columns Controls Application Access

Table Columns for text Search

Dictionary Entries

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

Columns Controls Application Access

Table Columns

for text

Search

1 to 10 of 10

New

Dictionary Entries

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

Delete Update Delete All Records

Access Controls (4) Security Data Filters Labels (1) Database Indexes (1) Table Subscription Configuration (1)

Decision Type

Search

Actions on selected rows...

Access Controls

Name	Decision Type	Operation	Type	Active	Updated by	Updated
u_family_expensess	Allow If	delete	record	true	admin	2025-10-31 17:39:42
u_family_expensess	Allow If	write	record	true	admin	2025-10-31 17:39:42
u_family_expensess	Allow If	create	record	true	admin	2025-10-31 17:39:41
u_family_expensess	Allow If	read	record	true	admin	2025-10-31 17:39:42

1 to 4 of 4

Right-click the header and select **Save**.

4. Making Number Field an Auto-Number

Open the Number field → Advanced view.

Check Use dynamic default and select Get Next Padded Number, then click Update.

Dictionary Entry
Number View: Advanced*
Delete Column Update

* Table Family_Expensess [u_family_expensess]
* Type String
* Column label Number
* Column name u_number
* Max length 40

Application Global
Active
Function field
Read only
Mandatory
Display

Alters the behavior of a field or functionality that depends on the field.

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

Search Number Maintenance → click New.

Set Table: Family Expenses, Prefix: MFE, and click Submit.

The screenshot shows the 'Number Maintenance' form for the 'Family_Expenses' table. The form includes fields for 'Prefix' (MFE), 'Number' (1,000), 'Application' (Global), and 'Number of digits' (7). There are 'Update' and 'Delete' buttons at the top right and bottom left. Below the form, there is a 'Related Links' section with a 'Show Counter' link.

5. Configure the Form

Search Family Expenses and open it.

Click New, then right-click the header → Configure → Form Design.

Arrange fields as needed.

Set Number as *Read-only* and make Date and Amount *Mandatory*.

Click Save.

The screenshot shows the 'Form Design' interface for the 'Family_Expenses' table. The left sidebar contains a 'Fields' list with 'Created', 'Created by', 'Updated', 'Updated by', and 'Updates'. The main area shows the form layout with a 'Number' field and an 'Expense Details' section. The 'Number' field is set to 'Read-only' and the 'Expense Details' section is set to 'Mandatory'. The 'Date' and 'Amount' fields are also set to 'Mandatory'.

6. Creation of Daily Expenses Table

Search Tables → click New.

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

* Name
u_daily_expenses

Application
Global

Remote Table

Enter Label: Daily Expenses, add to Menu: Family Expenditure, then right-click the header and select Save.

Table
Daily_Expenses

Delete

Update

Delete All Records

* Label
Daily_Expenses

* Name
u_daily_expenses

Application
Global

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
Updated by	String	(empty)	40		false
Sys ID	Sys ID (GUID)	(empty)	32		false
Updates	Integer	(empty)	40		false
Expense	Integer	(empty)	40		false
Family Member Name	Reference	User	32		false
Updated	Date/Time	(empty)	40		false
comments	String	(empty)	800		false
Number	String	(empty)	40	javascript:getNextObjNumberPadded();	false
Created by	String	(empty)	40		false
Date	Date	(empty)	40		false

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
Updated by	String	(empty)	40		false
Sys ID	Sys ID (GUID)	(empty)	32		false
Updates	Integer	(empty)	40		false
Expense	Integer	(empty)	40		false
Family Member Name	Reference	User	32		false
Updated	Date/Time	(empty)	40		false
comments	String	(empty)	800		false
Number	String	(empty)	40	javascript:getNextObjNumberPadded();	false
Created by	String	(empty)	40		false
Date	Date	(empty)	40		false
Created	Date/Time	(empty)	40		false
Insert a new row...					

Delete

Update

Delete All Records

Access Controls (4)

Security Data Filters

Labels (1)

Database Indexes (2)

Table Subscription Configuration (1)

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Decision Type ▾

Search

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Actions on selected rows... ▾

Access Controls

☐

🔍

Name

Decision Type ▴

Operation

Type

Active

Updated by

Updated

u_daily_expensess

Allow If

create

record

true

admin

2025-10-31 17:56:33

u_daily_expensess

Allow If

write

record

true

admin

2025-10-31 17:56:33

u_daily_expensess

Allow If

read

record

true

admin

2025-10-31 17:56:33

u_daily_expensess

Allow If

delete

record

true

admin

2025-10-31 17:56:33

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to 4 of 4

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7.Making Number Field an Auto-Number

Open the Number field → Advanced view.

Enable Use dynamic default and choose Get Next Padded Number, then click Update

Dictionary Entry

Number View: Advanced

Table

Daily_Expensess [u_daily_expensess]

Type

String

Column label

Number

Column name

u_number

Max length

40

Application

Global

Active

☒

Function field

☐

Read only

☒

Mandatory

☐

Display

☐

Attributes

Reference Specification

Choice List Specification

Function Definition

Dependent Field

Calculated Value

Default Value

Use dynamic default

☒

Dynamic default value

Get Next Padded Number

Delete Column

Update

Search Number Maintenance → New.

Set Table: Daily Expenses, Prefix: DFE, and click Submit.

Number

DFE

Update

Delete

Table

Daily_Expensess

Prefix

DFE

Number

1,000

Application

Global

Number of digits

7

Update

Delete

Related Links

Show Counter

8.Configure the Form

Search Daily Expenses and open it.

Click New, then right-click the header → Configure → Form Design.

Arrange fields as needed.

Set Number as *Read-only* and make Date and Family Member Name *Mandatory*.

Click Save.

The screenshot shows the 'Form Design' interface for the 'Daily_Expenses [u_daily_expenses]' entity. The interface is divided into a sidebar on the left and a main design area on the right.

Sidebar:

- Fields:** Includes a 'Filter' input and a list of fields: 'Created', 'Created by', 'Updated', 'Updated by', and 'Updates'.
- Formatters:** Includes a list of formatters: 'Activities (filtered)', 'Contextual Search Results', and 'Ratings'.

Main Design Area:

- Section 1 (2 Column):** Contains three fields: 'Number', 'Date', and 'Expense'. Each field has a settings icon (gear) and a mandatory icon (circle with a dot).
- Section 2 (1 Column):** Contains two fields: 'Comments' and 'Member name'. Each field has a settings icon (gear) and a mandatory icon (circle with a dot).

9. Creating Relationship Between Tables

Search Relationships → click New.

Set Name: Daily Expenses, Applies to Table: Family Expenses, Related Table: Daily Expenses, then click Save.

The screenshot shows the 'Relationship' configuration window for 'Daily_Expenses'. The 'Name' field is set to 'Daily_Expenses'. The 'Application' is set to 'Global'. The 'Applies to table' is set to 'Family_Expenses [u_family_expenses]'. The 'Queries from table' is set to 'Daily_Expenses [u_daily_expenses]'. Below these fields, there is a blue informational bar stating: '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](#).' Below this, there is a 'Query with' section with a toggle for 'Turn on ECMAScript 2021 (ES12) mode'. The script area contains the following code:

```
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);
```

At the bottom of the window, there are buttons for 'Run Query Diagnostics', 'Update', and 'Delete'.

10. Configuring Related List

Open Family Expenses → New → Configure > Related Lists → add Daily Expenses → Save.

The screenshot shows the 'Configuring related lists on Family_Expenses form' dialog. It has two main panes: 'Available' and 'Selected'. The 'Available' pane contains 'Attachments'. The 'Selected' pane contains 'Daily_Expenses'. Between the panes are '>' and '<' buttons. Below the panes are 'Cancel' and 'Save' buttons. At the bottom, there is a 'View name:' dropdown set to 'Default view'. Below that, there are links for 'Related Links', 'Show versions', and 'Related list performance diagnostics'.

11. Business Rule Creation

Navigate to All → Business Rules → New.

Name: Family Expenses BR

Table: Daily Expenses

Add query: required

The screenshot shows the 'Business Rule' configuration page for 'Family Expenses BR'. The 'Name' field is 'Family Expenses BR' and the 'Table' is 'Daily_Expenses [u_daily_expenses]'. The 'Application' is set to 'Global'. The 'Active' and 'Advanced' checkboxes are both checked. Below the configuration fields, there are tabs for 'When to run', 'Actions', and 'Advanced'. The 'When to run' tab is selected, showing options for 'When' (before) and 'Order' (100). There are also checkboxes for 'Insert', 'Update', 'Delete', and 'Query', with 'Insert' and 'Update' checked. A 'Filter Conditions' section is visible with buttons for 'Add Filter Condition' and 'Add OR Clause', and a dropdown menu for '-- choose field --'.

The screenshot shows the 'Advanced' tab in the Business Rule configuration page. It displays a 'Condition' field and a 'Script' section. The 'Script' section has a toggle for 'Turn on ECMAScript 2021 (ES12) mode' which is turned on. Below the toggle is a code editor with the following JavaScript code:

```
1 (function executeRule(current, previous /*null when async*/) {
2
3
4   var FamilyExpenses = new GlideRecord('u_family_expenses');
5
6   FamilyExpenses.addQuery('u_date', current.u_date);
7
8   FamilyExpenses.query();
9
10  if(FamilyExpenses.next())
11  {
12    {
13      FamilyExpenses.u_amount += current.u_expense;
14
15      FamilyExpenses.u_expense_details += ">" + current.u_comments + ":" + "Rs." + current.u_expense + "/-";
16
17      FamilyExpenses.update();
18    }
19  }
20 }
21 else
22
23
```

12. Configure Relationship

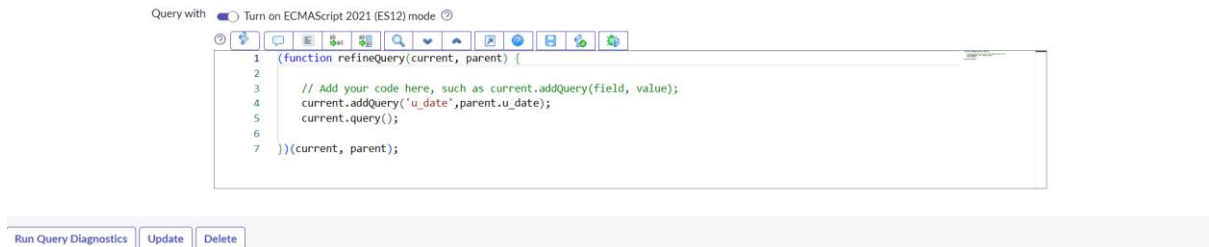
Go to All → Relationships and open Daily Expenses Relationship.

Set Applies to table: Family Expenses.

Add Query:

```
(function refine Query (current, parent) {
  current. add Query('update', parent. u_date);
```

```
current. query ();
}} (current, parent);
```



Update the Relationships by clicking on update.

- Built in **ServiceNow** to manage family spending.
- **Daily Expenses** table records:
 - Date, Amount, Comments, Family Member
- **Family Expenses** table shows:
 - Total spent per date, with summary
- Tables are **linked**:
 - Daily entries update family totals automatically
- Helps track spending and keep financial records organized.

Daily_Expensess

Number

Search

Actions on selected rows...

New

All

Number

comments

Date

Expense

Family Member Name

DFE0001003

money

2025-10-31

500

Abraham Lincoln

DFE0001002

Mobile

2025-11-01

500

Abel Tuter

<

≡

Family_Expenses
MFE0001009

Update

Delete

Number

MFE0001009

Expense Details

Mobile

Date

2025-11-01

Amount

500

Update

Delete

≡

Daily_Expenses

Number

Search

—

Actions on selected rows...

New

<input type="checkbox"/>		Number	comments	Date	Expense	Family Member Name
<input type="checkbox"/>		DFE0001002	Mobile	2025-11-01	500	Abel Tuter

<<

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1

>

>>

In conclusion, the *Family Expenses Calculation System* built on ServiceNow provides an efficient and organized way to manage household finances. By leveraging ServiceNow's automation and data management capabilities, the system simplifies expense tracking, ensures accuracy, and offers real-time insights into family spending patterns. This project not only enhances financial transparency but also promotes better budgeting and informed decision-making—ultimately contributing to improved financial stability and well-being for families.

Done By,

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Thank You!