Documentation: Calculating Family Expenses using ServiceNow
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1. Introduction

This document explains how to create a simple Family Expense Tracking and Calculation system within ServiceNow. The solution allows users to record, categorize, and analyze monthly expenses, making it easier to manage household budgets with the ServiceNow platform.

2. Objectives

* Keep a central record of family expenses.
* Categorize expenses (e.g., Food, Utilities, Education, Medical, Entertainment, Others).
* Calculate total expenses for a given period (weekly, monthly, yearly).
* Provide visual dashboards and reports for analysis.
* Allow role-based access for different family members if needed.

3. Key Components in ServiceNow

1. Custom Table: Family Expenses

  * Table Name: `u_family_expenses`
  * Fields:

    * Expense ID (Auto-number)
    * Date of Expense (Date)
    * Category (Choice field: Food, Rent, Utilities, Education, Medical, Entertainment, Other)
    * Description (String)
    * Amount (Currency)
    * Paid By (Reference – e.g., family member)

2. Form & List Layout

  * Expense form for adding and editing entries.
  * List view for quick access to all expenses.

3. Business Rules / Script Includes

  * Calculate **monthly totals** automatically.
  * Check that the **Amount field > 0**.

4. Reports & Dashboards

* Monthly Expense Report.
* Pie Chart by Category.
* Yearly Expense Trend (Line/Bar Chart).

5. Scheduled Jobs (Optional)

* Monthly email with expense summary.
* Notifications for overspending thresholds.

4. Process Flow

1. Input: Family members log expenses into ServiceNow using the **Family Expenses table**.
2. Storage: Each expense is stored with its category, amount, and date.
3. Processing: Business rules or scheduled jobs calculate totals by category and month.
4. Output: Reports and dashboards show insights into spending habits.

5. Example Use Case

* Step 1: Add expenses for the month (e.g., ₹10,000 Rent, ₹4,000 Groceries, ₹2,000 Electricity).
* Step 2: ServiceNow adds these amounts by category.
* Step 3: Dashboard displays:

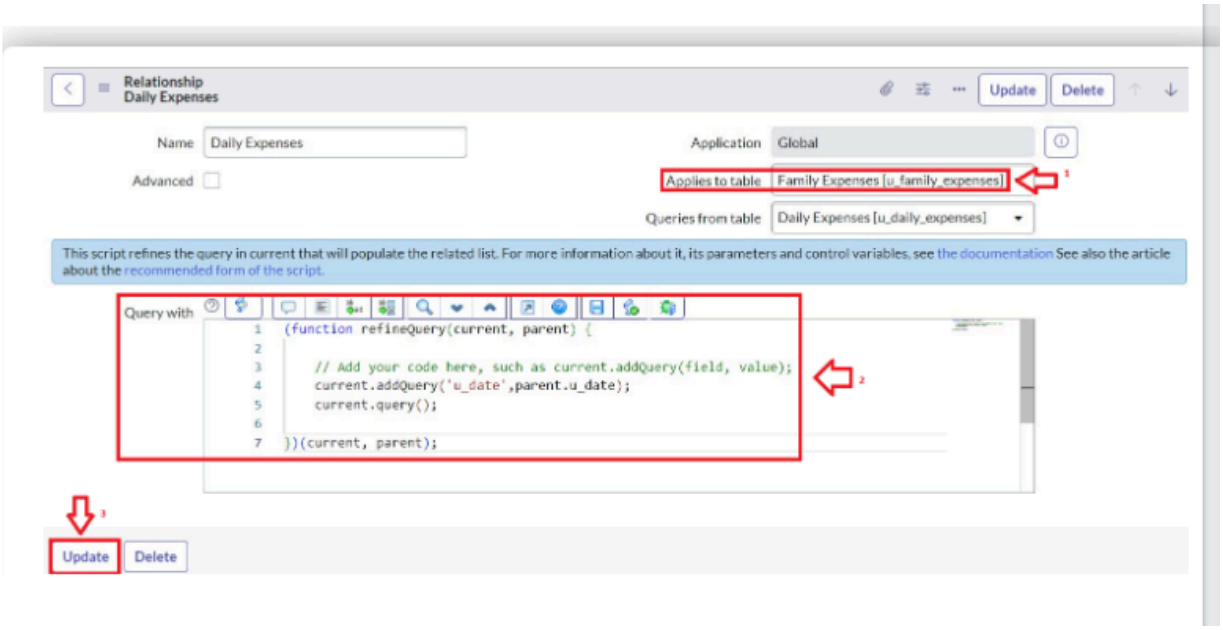
* Total Monthly Expenses = ₹16,000
* Highest Spending Category = Rent
* Trend: Increase of 10% compared to last month.

6. Benefits

* Centralized and easy-to-access records of family spending.
* Automatic calculations and reports cut down on manual work.
* Visual dashboards support quick decision-making.
* Can be expanded to track savings goals or income vs. expenses.

7. Possible Enhancements

* Mobile access: Allow quick expense entry through the ServiceNow mobile app.
* Integrations: Connect with Google Sheets or banking APIs for automatic data entry.
* Budget alerts: Send notifications when monthly spending goes over budget.


Relationship
Daily Expenses
Update
Delete
Name
Daily Expenses
Application
Global
Advanced
Applies to table
Family Expenses [u_family_expenses]
1
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
(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);
2
3
Update
Delete

Script

```
(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);
```

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

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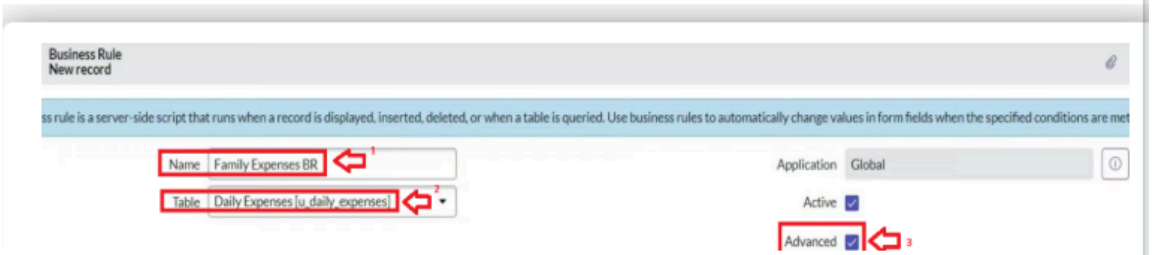
">"+current.u_comments+":"+"Rs."+current.u_expense+"/-";
NewFamilyExpenses.insert();
}

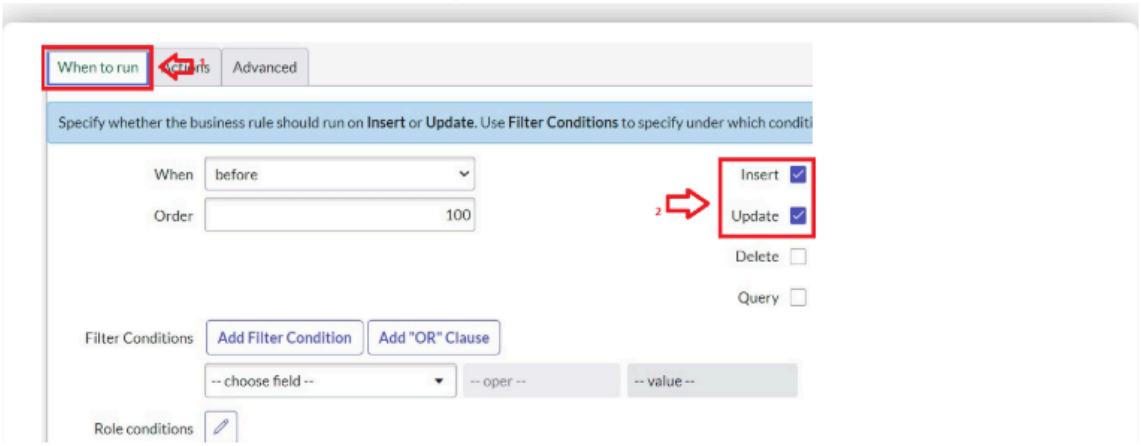
})(current, previous);
```

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 >>

Configuring Related List On Family Expenses

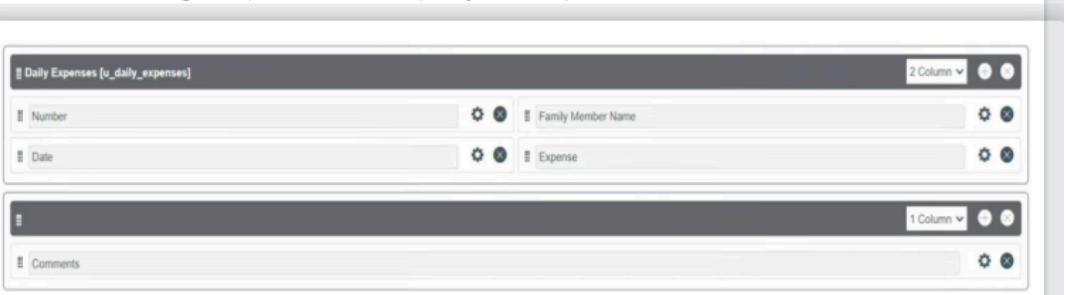
1. Go to All >> In the filter search for Family Expenses >> Open Family Expenses
2. Click on New
3. Go to the Header and right click there>> click on Configure >> Select Related Lists
4. Add Daily Expenses to the Selected Area.
5. Click on Save

Creation Of 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.

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.

9. Click on Submit.

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.

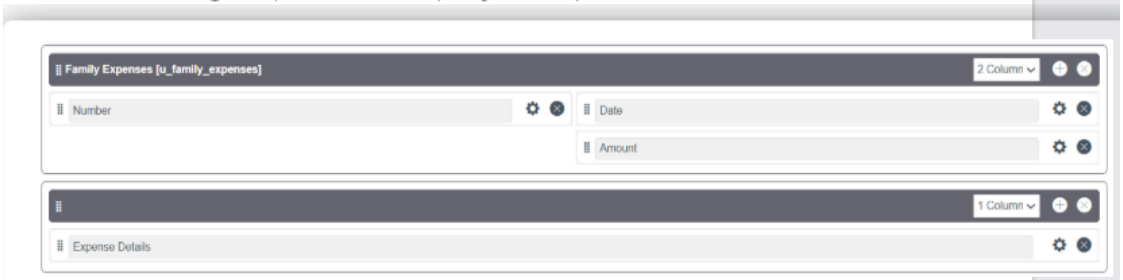
Creation Of Daily Expenses Table

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

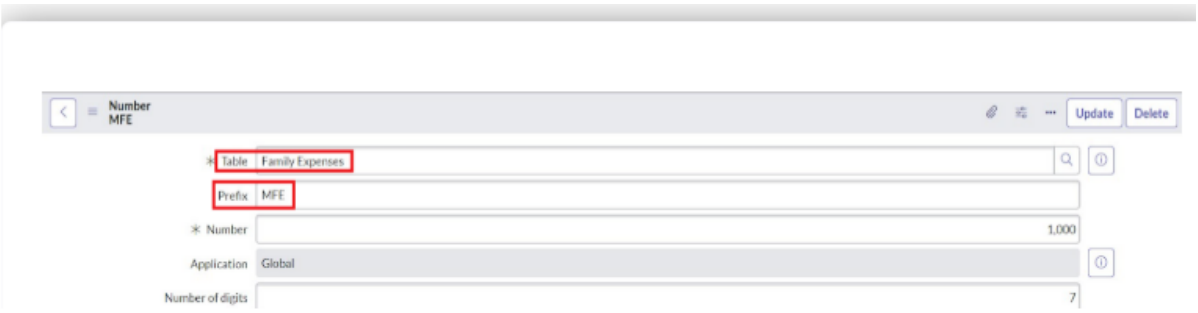
3. Go to the Header and right click there>> click on Save.

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.

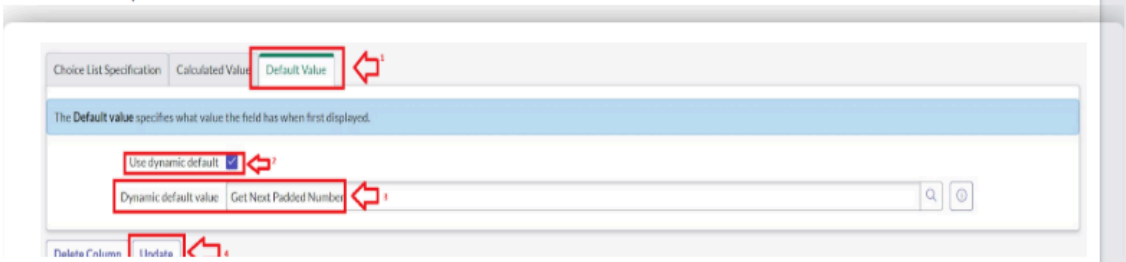


5. Make Number Read-Only Field by clicking on the gear icon and checking Read-Only
6. Make Date, Amount Mandatory Field by clicking on the gear icon and checking Mandatory
7. Click on Save.



9. Click on Submit.

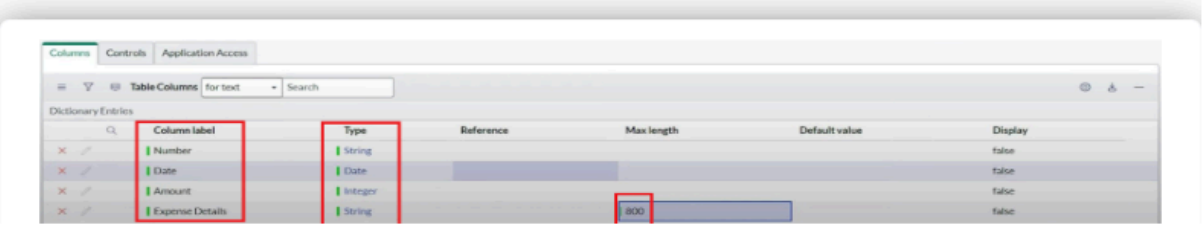
Making Number Field An Auto-Number

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. 

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

Creation Of Columns(Fields)

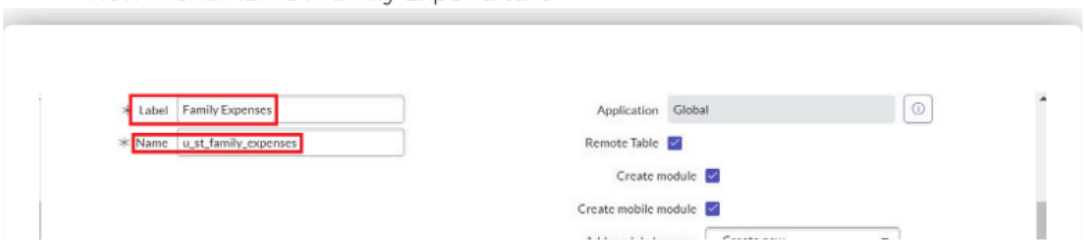
1. Near Columns Double click near insert a new row.
2. Give the details as:
   Column label : Number
   Type : String
3. Double click on insert a new row again
4. Give the details as:
   Column label : Date
   Type : Date
5. Double click on insert a new row again
6. Give the details as:
   Column label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



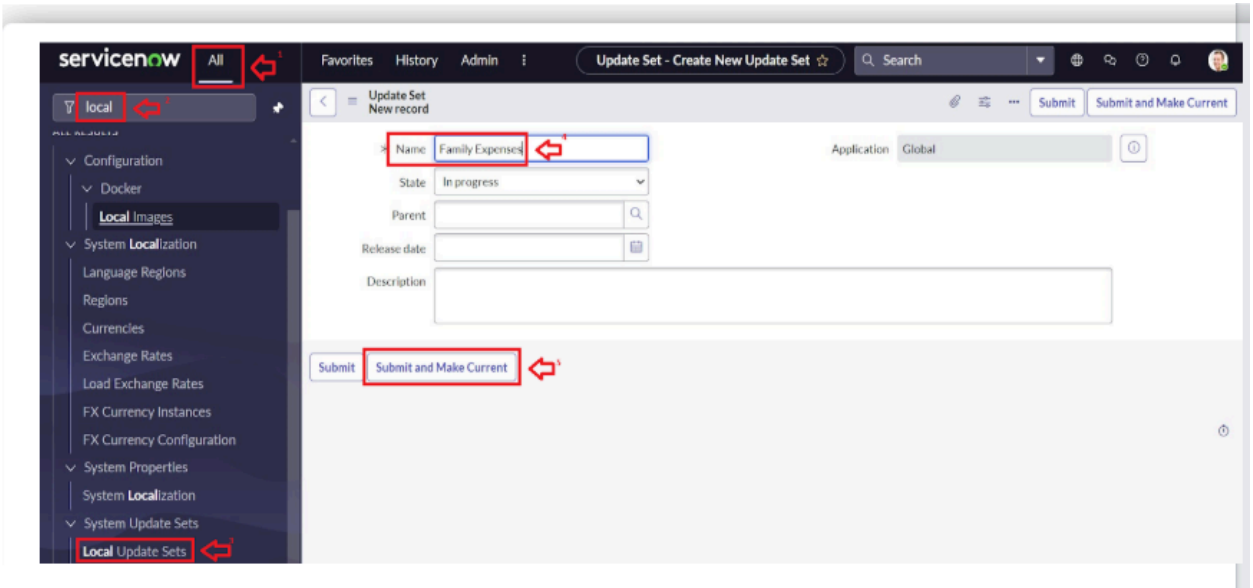
9. Go to the Header and right click there>> click on Save.

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

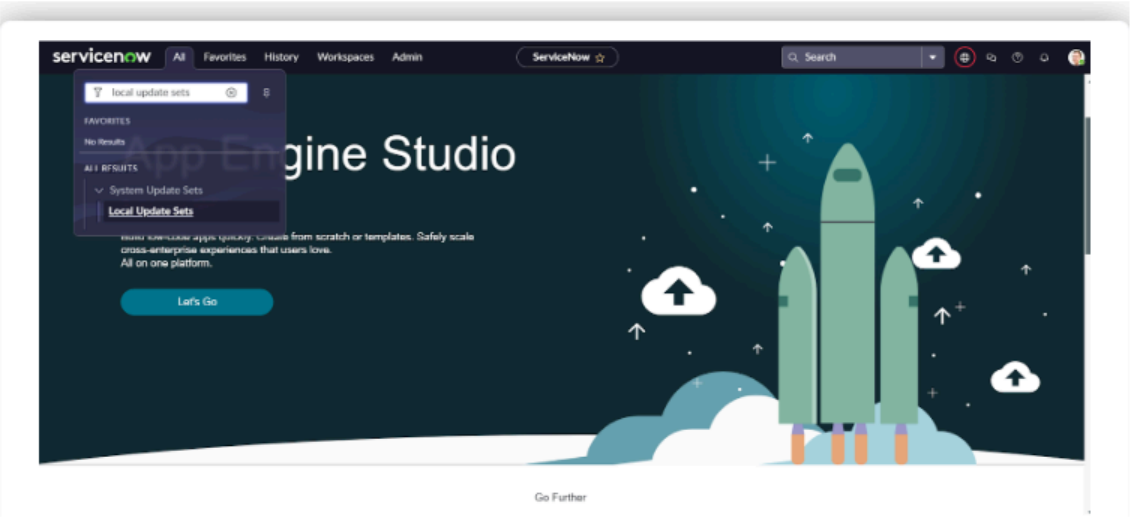


3. Go to the Header and right click there>> click on Save.

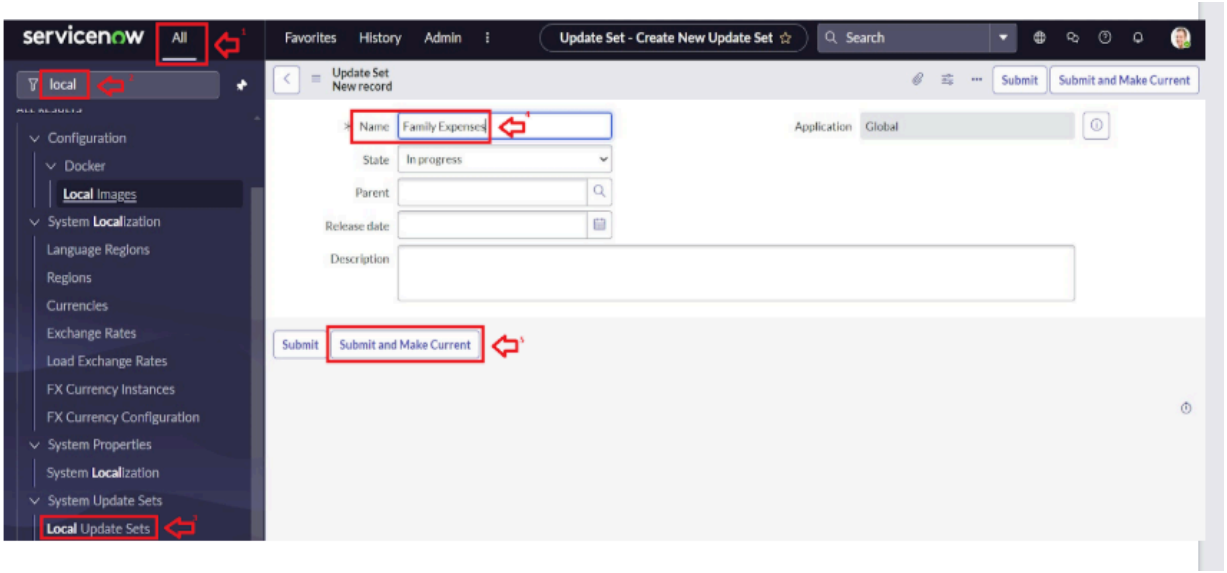


Creation Of New Update Set

1. Go to All >> In the filter search for Local Update set > click on New.

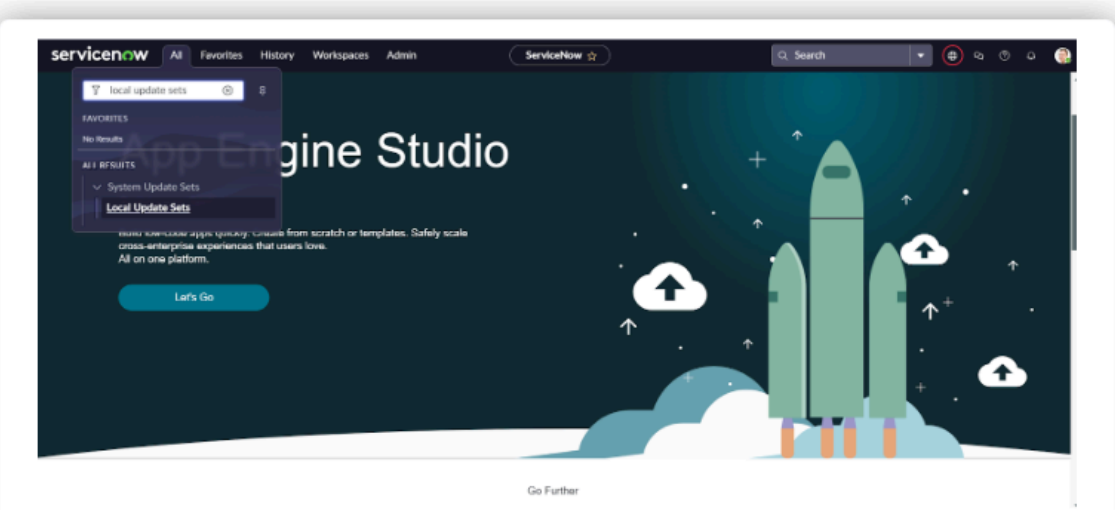


2. Enter the Details as:
   Name : Family Expenses
3. Then click on Submit and Make current.



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.

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.

8. Conclusion

Using ServiceNow to calculate and manage family expenses offers a clear, automated, and easy way to track finances. By setting up a custom expense table, applying rules for calculations, and using dashboards for visualization, families can see their spending habits more clearly. This solution makes daily expense management simpler and encourages financial awareness, better budgeting, and long-term planning. With added features like mobile access and automated alerts, the system can become a complete personal finance assistant within ServiceNow.