

Calculating Family Expenses Using ServiceNow

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Project Name	Calculating Family Expenses Using ServiceNow
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1. Introduction:

1.1 Project Overview

This project, “Calculating Family Expenses Using ServiceNow”, is designed to track and manage family expenses by leveraging the ServiceNow platform. The goal is to build a custom application with tables, forms, and business rules to automate and streamline household financial tracking.

1.2 Purpose

To create a user-friendly, cloud-based application on ServiceNow that enables the logging, monitoring, and managing of family-related expenses efficiently.

2. Ideation Phase:

2.1 Problem Statement

Managing daily household expenses manually can be inconsistent and error-prone. Families need a centralized digital platform to track and analyze their spending effectively.

2.2 Empathy Map Canvas

- Think & Feel: Wants to save money, understand monthly spending.
- See: Sees irregular expenses with no history.
- Hear: Suggestions from family to maintain better records.
- Say & Do: Tries managing with notebooks or Excel.
- Pain: No insights or easy analysis.

- Gain: Wants organized, clear, automated expense tracking

2.3 Brainstorming

- Use of ServiceNow tables to log expenses.
- Linking expenses to family members.
- Business rules to prevent invalid inputs.
- Related lists for viewing data connections.
- Custom UI forms for easy data entry.

3. Requirement Phase:

3.1 Customer Journey Map

- User logs in to the ServiceNow instance
- Adds family member details
- Logs daily expenses
- Views related expenses per person
- Analyses expense pattern

3.2 Solution Requirement

- Custom Tables: Family, Daily Expenses
- Relationships: One-to-many (Family → Expenses)
- Forms and Views: UI Form, Related List
- Business Rules: Data validation (e.g., no negative cost)

3.3 Data Flow Diagram

- User Input → Daily Expense Table → Business Rules → Reports Generation

3.4 Technology Stack

- Platform: ServiceNow
- Language: JavaScript (for scripting)
- Tools: Update Sets, Table Designer, Business Rule Editor

4. Project Design:

4.1 Problem-Solution Fit

Families need expense tracking; ServiceNow offers form-based entries, data relationships, and automation which perfectly fits the need.

4.2 Proposed Solution

Create a ServiceNow app to manage members and link their daily spending. Use business logic to validate data and related lists for intuitive UI.

4.3 Solution Architecture

- Table 1: Family Expenses
- Table 2: Daily Expenses
- One-to-many relation
- Rules for data entry and list filters

5. Project Planning & Scheduling:

5.1 Project Planning

The Project Planning Phase involves creating a clear roadmap to successfully complete the project. It includes outlining tasks, timelines, responsibilities, and necessary resources.

Phase	Estimated Time
Setting Up Instance	1 hour
Update Set Creation	30 mins
Table Creations	2 hours
Relationships & Lists	1.5 hours
Business Rules	2 hours
Final Testing & Conclusion	1 hour

6. Functional and Performance Testing:

6.1 Performance Testing

- Verified that forms load within seconds
- Checked rule-based validations (e.g., required fields)
- Confirmed related list displays correct records
- No lag in record creation or list refresh

7. Results:

7.1 Output Screenshots

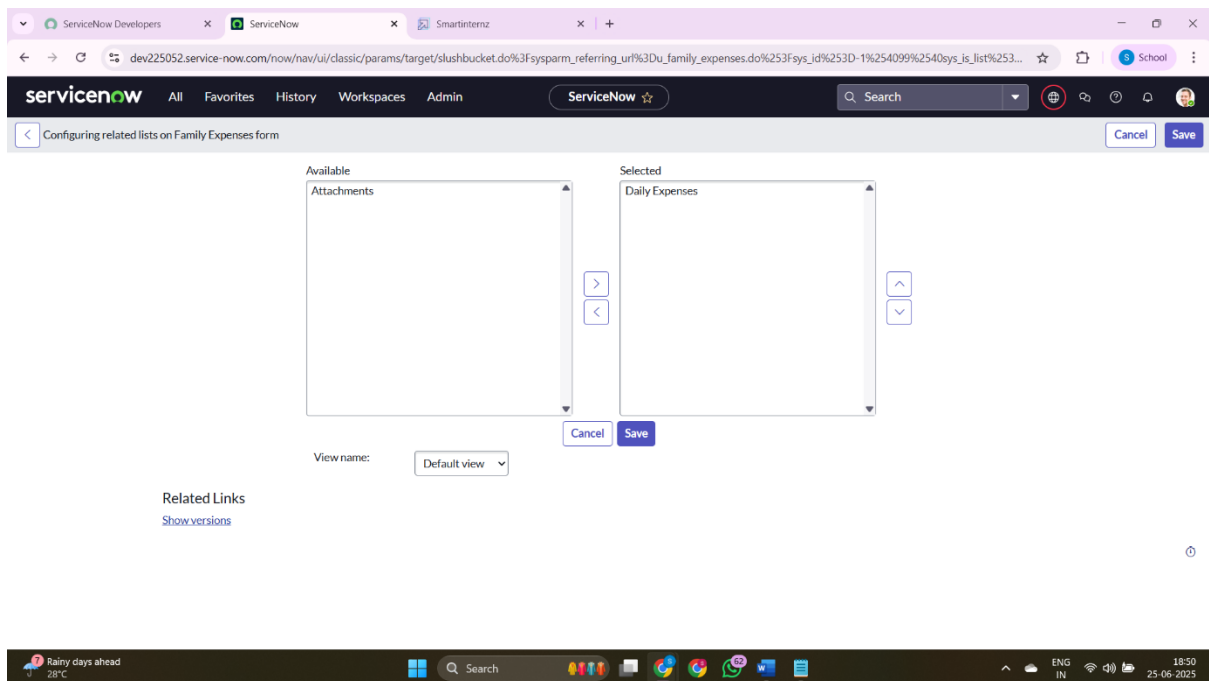
- Family Expenses

The screenshot shows a web browser window with multiple tabs open. The active tab is 'Create MFE0001005 | Family Expenses'. The browser address bar shows a URL from dev225052.service-now.com. The ServiceNow interface has a top navigation bar with 'Family Expenses - Create MFE0001005' and a search bar. The main form area is titled 'Family Expenses New record'. It contains the following fields: 'Number' with the value 'MFE0001005', a required 'Date' field marked with a red asterisk, and a required 'Amount' field marked with a red asterisk. Below these is a large 'Expense Details' text area. A 'Submit' button is located at the bottom left of the form. The Windows taskbar at the bottom shows the date as 25-06-2025 and the time as 18:12.

- Daily Expenses

The screenshot shows a web browser window with multiple tabs open. The active tab is 'Create DEF0001004 | Daily Expenses'. The browser address bar shows a URL from dev225052.service-now.com. The ServiceNow interface has a top navigation bar with 'Daily Expenses - Create DEF0001004' and a search bar. The main form area is titled 'Daily Expenses New record'. It contains the following fields: 'Number' with the value 'DEF0001004', a required 'Date' field marked with a red asterisk, a required 'Family Member Name' field marked with a red asterisk, an 'Expense' field, and a 'Comments' text area. A 'Submit' button is located at the bottom left of the form. The Windows taskbar at the bottom shows the date as 25-06-2025 and the time as 18:40.

- **Related List**



8. Advantages & Disadvantages:

Advantages

- Easy and accessible on the cloud
- Accurate tracking of expenses
- Relationship-based views give clarity
- Automates validations via rules

Disadvantages

- Requires internet access
- Limited UI customization without scripting
- Depends on ServiceNow access permissions

9. Conclusion:

The project successfully demonstrates how a family expense management system can be built using ServiceNow. It automates logging, connects related data, and improves clarity in financial tracking.

10. Future Scope:

- Adding charts for monthly expense analysis
- Email notifications for exceeding budget
- Mobile-access optimized interface

- Role-based access for different family members

11. Appendix:

- Source Code: No external code; used ServiceNow platform
- Dataset Link: Not applicable
- GitHub & Project Demo Link

GitHub:

<https://github.com/Poojasri31/Calculating-Family-Expenses-Using-ServiceNow>

Project Demo Link:

<https://drive.google.com/drive/folders/1svLJp6sqHcQkvU2KEWMcegnUvreInTrd?usp=sharing>