

Define Problem Statement

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| Date: | November 02, 2025 |
| Team ID: | NM2025TMID05019 |
| Project Name: | Calculating Family Expenses using ServiceNow |
| Maximum Marks: | 2 Marks |

1. Problem Overview

In most households, managing and tracking daily expenses is a manual, time-consuming process. Family members record expenditures using notebooks or spreadsheets, leading to calculation errors, missing entries, and difficulty in analyzing spending patterns. Without automation, maintaining financial transparency and consistency becomes a major challenge.

Key Symptoms:

- Daily expenses are tracked manually, often resulting in inaccuracies.
- Lack of centralized record-keeping causes confusion and redundancy.
- No quick way to calculate total expenses or analyze spending categories.
- Absence of real-time updates or notifications about high daily spending.

2. Background and Context

Families today handle multiple expenses such as groceries, utilities, entertainment, and transportation. However, without a unified tracking system, it becomes difficult to manage and consolidate these expenses effectively. Traditional methods rely on manual logs or mobile notes, offering no integration or summarization. This lack of automation results in mismanagement, overspending, and poor financial awareness.

Root Causes (Fishbone Analysis Summary):

- **People:** No consistent method for all family members to log expenses.
- **Process:** Manual calculations and lack of automatic data summarization.
- **Technology:** Absence of a centralized platform to capture and analyze daily expenditure.
- **Environment:** Limited tools for tracking shared family expenses efficiently.

3. Business Impact

| Impact Area | Current Metric | Target Metric | Gap |
|---------------------------|----------------|---------------|--------|
| Expense Tracking Accuracy | 60% | 95% | 35% |
| Time Spent on Calculation | 30 min/day | 5 min/day | 25 min |
| Financial Visibility | Low | High | — |
| Data Consistency | Manual | Automated | — |

4. Stakeholders

Stakeholder Needs:

- **Primary:** Family Members – record daily expenses.
- **Secondary:** Household Managers – review expenditure trends.
- **Sponsors:** Head of Family – ensure budgeting and control.
- **Influencers:** All members contributing expense data.

Stakeholder Expectations:

- Centralized platform for entering and viewing expenses.
- Real-time expense aggregation and insights.
- Transparent record of individual and total expenditures.

5. Desired Future State

Implement an automated expense management system in ServiceNow that:

- Records daily expenses for each family member.
- Automatically aggregates and calculates total expenses per day.

- Provides dashboards and detailed expense breakdowns.
- Sends alerts when daily expenditure exceeds defined thresholds.

High-Level Solution Vision: Develop a ServiceNow-based application with custom tables, relationships, and business rules that automate daily expense calculations and reporting. The system will ensure real-time financial insights and eliminate manual effort.

6. Success Criteria

Quantitative:

- 90% automation in expense tracking and calculation.
- 95% accuracy in daily total computation.
- Expense summary generation time reduced to <2 minutes.

Qualitative:

- Improved financial awareness among family members.
- Transparent tracking and reduced calculation errors.
- Ease of use and accessibility for all users.

Timeline: MVP ready in 3 weeks, full implementation in 6 weeks.