# Ideation Phase

## Define the Problem Statements

| Date | |
|---|---|
| Team ID | NM2025TMID05673 |
| Project Name | Calculating Family Expenses using Service Now |
| Maximum Marks | 2 Marks |

**Problem Statement:**

Managing family expenses manually can often be time-consuming and prone to errors. Many families rely on notebooks, spreadsheets, or memory to track their monthly income and expenditures, which can lead to confusion and poor financial planning. There is often no clear overview of where money is being spent or how savings can be improved.

Without a proper system, it becomes difficult to analyze spending patterns, categorize expenses, or generate reports that show the financial status of the family. Manual calculations also increase the risk of missing entries or misplacing records, making it hard to maintain transparency and control.

To solve these issues, there is a need for an automated expense management system that can record, calculate, and monitor all family financial transactions efficiently. Using ServiceNow, we can design a digital workflow that helps families input expenses, categorize them (such as groceries, bills, education, and savings), and automatically calculate totals. The system can also generate reports and send alerts when expenses exceed set limits.

**Problem & Solution Table:**

| S.No | Problem | Solution using ServiceNow |
|---|---|---|
| 1. | Manual recording of expenses leads to errors and missing data. | Automate expense entry using ServiceNow forms to ensure accurate and complete records. |
| 2. | Difficult to categorize and analyze family spending. | Use ServiceNow's workflow automation to create categories such as groceries, utilities, education, and savings for better tracking. |
| 3. | No real-time visibility of total monthly expenses. | Implement dashboards in ServiceNow to display real-time summaries and expense totals. |
| 4. | Time-consuming calculations and report generation. | Generate automated reports and charts using ServiceNow reporting tools. |
| 5. | Lack of notifications when expenses exceed budget limits. | Configure ServiceNow to send alerts or notifications when expenses go beyond the predefined limits. |

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| 6. | Difficulty in maintaining transparency among family members. | Allow multiple user access so that every family member can view and update their own expenses. |
| 7. | Hard to identify unnecessary or high-cost spending areas. | Use analytical reports and graphical views in ServiceNow to highlight spending trends and costly areas. |

**Example:**

| Problem Statement | I am (Customer) | I'm trying to | But | Because | Which makes me feel |
|---|---|---|---|---|---|
| PS-1 | A Family Member | Record my daily expenses in one place. | I often forget to note them or lose the data. | there's no centralized or automated system to store family expenses. | Disorganized and frustrated |
| PS-2 | A Parent | Track monthly spending and savings | I can't see how much each category (food, bills, etc.) costs | there's no clear report or dashboard to show total expenses | Confused and unsure about financial status |
| PS-3 | A Student | Manage my pocket money and small expenses | I spend without realizing how much is left | there's no alert or reminder for spending limits | Regretful and careless |

- **Problem Statement 1:**

  In most families, members spend money daily on things like food, travel, and personal items. However, they often forget to record these expenses or store them in multiple places like notebooks, messages, or mobile notes. This scattered method causes missing entries and confusion at the end of the month. Without a single platform to enter and track daily spending, it becomes hard to know the total expenditure or maintain accurate records. By using ServiceNow, a simple form or interface can be created where every family member logs their expenses in real time. This ensures that all data is safely stored, easy to access, and automatically added to the total monthly expense report.

- **Problem Statement 2:**

Parents usually handle the major financial responsibilities at home, such as paying bills, buying groceries, and planning savings. Without a proper tracking system, it becomes difficult to analyze where the money is being spent each month. For example, one may not know whether most expenses go toward food, entertainment, or education. This lack of visibility leads to confusion and poor decision-making about budgeting. Using **ServiceNow's dashboard and reporting features**, parents can categorize expenses, view real-time totals, and generate visual charts. This makes it easier to understand spending habits, control overspending, and plan savings effectively.

- **Problem Statement 3:**

  Students often have limited pocket money and need to spend wisely. However, without tracking, they may overspend on small items like snacks, travel, or entertainment. Since there's no alert or reminder system, they only realize the shortage after running out of money. This creates a sense of regret and a lack of control over personal finance. By using ServiceNow, a notification system can be set up to alert users when they reach a certain spending limit. Students can also view remaining balance and past expenses, which encourages them to plan better and develop responsible spending habits.