Ideation Phase-Empathize & Discover

Date	1-11-2025
Team id	NM2025TMID05401
Project name	Calculating Family Expenses using service now
Maximum mark	4marks

1. Target Users

User Type	Role	Description
Parent / Guardian (Admin)	Decision-maker	Manages family budgets, approves expenses, sets allowances, and monitors reports.
Adult Member / Spouse	Contributor	Records expenses, tracks spending, wants visibility into shared budgets.
Teen / Child	Limited participant	Submits small expenses or allowances, learns about budgeting.
System / AI Assistant	Helper	Provides alerts, calculates totals, and gives predictive insights.

2. Empathy Research Methods

Method	Description	Example
Interviews	Talk to 3–5 family members to understand daily challenges.	"How do you track monthly family expenses now?"
Observation	Watch how users currently record and split expenses.	Notice frustration with manual spreadsheets.
Surveys	Collect data from families about spending habits.	Ask: "What feature would make expense tracking easier?"
Experience Mapping	Map user emotions across the month's expense cycle.	High stress during bill payments → opportunity for alerts.

3. Key Insights from Empathy Stage

Through user interactions, you might discover:

- Families struggle with **transparency** ("Who spent what?").

- They feel **frustrated** by manual tracking in Excel.
- They want **real-time totals** and **auto-alerts** for overspending.
- Parents want **control** (approvals, budgets), while kids want **clarity** (allowance balance).
- Some family members are motivated by **rewards or gamification** (e.g., referral bonuses).

"We need something that tracks our expenses automatically and tells us when we're close to overspending — without needing to check spreadsheets every day."

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4. Empathy Map Example

Says	Thinks	Feels	Does
"I never know how much we've spent until the end of the month."	"We could save more if we had reminders."	Overwhelmed, anxious about bills.	Keeps receipts, updates spreadsheet late.
"I wish I got alerts before we go over budget."	"Automation could help me manage money better."	Relieved when things are organized.	Searches for expense tracking apps.
"Kids don't understand how expenses add up."	"They need to learn budgeting early."	Wants transparency and education.	Shares allowance manually.

Design Thinking Phase 2: Discover

Goal:

Analyze and define **what the users truly need**, based on empathy research — and uncover hidden opportunities for automation, intelligence, and engagement.

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1. Problem Discovery

From empathy research, you identify that:

- **Data is scattered** (manual records, different apps).
- **No real-time visibility** → people discover overspending too late.
- **No automation** → repetitive tasks like approvals and summaries take time.
- **No engagement** → users lose motivation to track spending.

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2. User Needs Identified

Need	Description	Opportunity for ServiceNow
Centralized tracking	One system to log and see all expenses.	Custom tables & Service Portal forms.
Automation	Auto-calculate totals, reminders, and summaries.	Flow Designer + Notifications.
Transparency	Shared dashboard for all members.	Role-based dashboards.
Budget control	Alerts when nearing limits.	Scheduled alerts + Predictive analytics.
Motivation / Gamification	Incentives for responsible spending.	Referral and reward system.

3. Discovery Insights (The "Aha!" Moments)

Insight	Why It Matters	Design Opportunity
Families want automation, not manual input.	Reduces stress and saves time.	Use Flow Designer to automate totals and reports.
Real-time alerts prevent overspending.	Users can adjust behavior immediately.	Create push/email alerts triggered by budget thresholds.
Reward systems increase engagement.	Encourages financial responsibility.	Add referral + reward features.
Predictive insights help planning.	Families can anticipate next month's expenses.	Add AI forecasting module.

4. User Stories (Discovered Needs → Features)

As a...	I want to...	So that I can...
Parent	Get alerts when we cross 80% of budget.	Control spending before it's too late.
Family member	See my total expenses in real time.	Understand my spending habits.
Child	Know how much allowance I have left.	Learn to manage small budgets.
Admin	Get a monthly expense summary automatically.	Avoid manual calculations.
Any user	Earn rewards when I refer new members.	Stay motivated to use the system.

5. Problem Statement (Refined After Empathy & Discovery)

Families lack a centralized, automated, and transparent way to track and manage shared expenses.
This leads to financial stress, overspending, and poor communication.
They need an **intelligent, automated system** that calculates totals, provides alerts, and motivates users through engagement and rewards — all on a single platform