

Project Design Phase-II

Solution Requirements (Functional & Non-functional)

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|--------------------------------|--------------------------------------|
| Label | Detail |
| Date | 31 OCT 2025 |
| Team ID | NM2025TMID00063 |
| Project Name | Family Expense Tracker on ServiceNow |
| Design Document Version | 1.0 |

Functional Requirements:

Following are the functional requirements of the proposed solution, defining *what* the system must do.

| FR No. | Functional Requirement (Epic) | Sub Requirement (Story / Sub-Task) |
|---------------|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| FR-1 | Expense Data Capture | FR-1.1: Provide a simple form for users to input expense details (Amount, Date, Category, Description). |
| | | FR-1.2: Implement an attachment field to allow users to upload receipts (PDF or Image). |
| | | FR-1.3: Automatically stamp the expense record with the submitting User's Name and the Submission Date. |
| FR-2 | Budget Definition | FR-2.1: Allow the designated Admin user to define monthly budgets for each Expense Category (e.g., Groceries: \$500). |
| | | FR-2.2: Allow the Admin to define a total monthly family budget. |

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| FR-3 | Expense Calculation & Reporting | FR-3.1: Display an interactive dashboard showing total expenses vs. total budget for the current month. |
| | | FR-3.2: Provide drill-down reports showing spending grouped by Category, sorted by date. |
| | | FR-3.3: Calculate and display the remaining budget for each defined category in real-time. |
| FR-4 | Alerts and Notifications | FR-4.1: Send an email notification to the Admin user when spending in any category reaches 80% of its budget limit. |
| | | FR-4.2: Trigger a high-priority alert on the dashboard when the total monthly budget is exceeded. |
| FR-5 | User Management | FR-5.1: Implement two user roles: Admin (can set budgets, manage categories, view all reports) and Contributor (can only submit expenses). |
| | | FR-5.2: Restrict access so only authenticated family members can use the application. |

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution, defining *how well* the system performs.

| NFR No. | Non-Functional Requirement | Description |
|----------------|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| NFR-1 | Usability (UX/UI) | The expense submission form and dashboard must be mobile-responsive (using Service Portal) for easy access on smartphones and tablets. |
| NFR-2 | Security | All financial data must be secured using ServiceNow ACLs, ensuring only members of the assigned family can view the records. |

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| NFR-3 | Performance | The expense dashboard and reports must load and display data within 3 seconds, even with a history of 5,000+ records. |
| NFR-4 | Reliability | The budget calculation logic must be thoroughly unit-tested to ensure 100% accuracy in all reports and alerts. |
| NFR-5 | Maintainability | All Expense Categories and Budget Limits must be stored in simple, non-hardcoded configuration tables for easy updates by a platform administrator. |
| NFR-6 | Scalability | The solution must support a future expansion to track up to 5 years of historical data and up to 10 family members without significant performance degradation. |