# Project Design Phase-II
## Solution Requirements (Functional & Non-functional)

| Date | 06 November 2025 |
|------|------------------|
| **Team ID** | NM2025TMID01384 |
| **Project Title** | Calculating Family Expenses Using ServiceNow |
| **Maximum Mark** | 4 Marks |

**Functional Requirements:**

The following are the functional requirements of the proposed Family Expense Calculation System built using ServiceNow.

| FR No. | Functional Requirement (Epic) | Sub Requirement (Story / Sub-Task) |
|--------|-------------------------------|-------------------------------------|
| FR-1 | Family Expense Entry | Users can add daily expenses through a simple form. Each entry includes date, amount, and expense details. |
| FR-2 | Expense Categorization | System categorizes expenses into various heads (e.g., Food, Bills, Entertainment, etc.) for better insights. |
| FR-3 | Automated Calculation | Business Rule automatically updates *Family Expenses Table* when new *Daily Expense* is added or modified. |
| FR-4 | Relationship Management | Relationship between *Family Expenses* and *Daily Expenses* ensures data is synchronized in real-time. |
| FR-5 | Budget Setting | Users can set a monthly budget limit for total family expenditure. |
| FR-6 | Expense Summary & Reports | System generates detailed and summarized reports based on date, amount, and category for analysis. |
| FR-7 | User Access Control | Admin or family head can view and manage all records, while members can only add or view their own expenses. |

| | | |
|---|---|---|
| | | |
| FR-8 | Data Storage & Maintenance | All expense records are securely stored in ServiceNow tables with automatic number generation and tracking. |

## Non-Functional Requirements

These describe the expected quality and operational characteristics of the system.

| NFR No. | Non-Functional Requirement | Description |
|---|---|---|
| NFR-1 | Usability | The user interface should be simple, intuitive, and easy for all family members to operate. |
| NFR-2 | Security | Only authorized users can access and modify expense data; sensitive data is protected using ServiceNow's access control. |
| NFR-3 | Reliability | The system must maintain data accuracy during all expense updates and aggregation. |
| NFR-4 | Performance | Expense calculations and updates must occur automatically without noticeable delay. |
| NFR-5 | Availability | The ServiceNow instance must remain available for users to access or record expenses anytime. |
| NFR-6 | Scalability | The system should handle increased family members and large volumes of expense data efficiently. |
| NFR-7 | Maintainability | Updates, category modifications, or report customizations should be easily manageable by the admin. |
| NFR-8 | Integration | Should allow integration with other ServiceNow applications or external tools for analytics and dashboards. |