☐ Project Design Phase – II

Solution Requirements (Functional & Non-Functional)

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Project Name: Calculating the Family Expenses in ServiceNow

1. Introduction

The **Solution Requirements** document defines both **functional** and **non-functional** aspects of the *Calculating the Family Expenses in ServiceNow* system.
This phase focuses on detailing how the system will operate, what features it must include, and the performance expectations it must meet.

The main objective is to design a reliable, automated, and user-friendly expense management module within ServiceNow that enables families to record, track, and analyze their financial data efficiently.
By defining clear requirements, the project ensures alignment between user expectations, system functionality, and platform capabilities.

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2. Functional Requirements

Functional requirements describe the **core features and behaviors** of the system — what it must do to meet the project's goals.

2.1 Expense Management

- The system must allow users to **create, edit, and delete expense entries**.
- Each expense must include fields such as **Amount, Category, Date, Description, and Family Member**.
- The system should automatically **calculate total monthly and yearly expenses**.

2.2 Expense Categorization

- Users can categorize expenses (e.g., Groceries, Utilities, Education, Travel, Entertainment).
- The system must maintain **separate totals** for each category and provide a **summary report**.

2.3 Family Member Assignment

- Each expense entry must be linked to a **specific family member**.

- The system should display both **individual and combined expenses** across all members.

2.4 Data Validation & Business Rules

- The system must prevent saving incomplete or invalid records.
- **Deletion of expenses linked to monthly reports** should be blocked via a "Before Delete" Business Rule.

2.5 Reporting & Dashboards

- Generate **automated reports** (monthly, quarterly, yearly).
- Provide **visual dashboards** showing spending trends, top categories, and total savings.
- Allow export of data to Excel or PDF for offline use.

2.6 Role-Based Access

- **Family Members:** Can add and view personal expenses.
- **Family Head/Admin:** Can view all family records and generate reports.

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3. Non-Functional Requirements

Non-functional requirements describe how the system should perform and ensure reliability, usability, and scalability.

3.1 Performance

- The system must process and store data efficiently for up to **10,000 expense records** without performance issues.
- Reports should generate within **3 seconds** for standard queries.

3.2 Security

- Role-based access ensures data privacy.
- Sensitive information such as budget data must be **protected via ServiceNow ACLs (Access Control Lists)**.

3.3 Usability

- The interface should be intuitive and responsive for all users.
- All data entry forms should support **auto-validation** and provide user-friendly error messages.

3.4 Scalability

- The system must allow for future integration with analytics tools, such as **ServiceNow Performance Analytics** or **Power BI**.

3.5 Reliability

- System uptime should be **99% or higher**, ensuring consistent accessibility for all users.
- All records must be automatically backed up on a scheduled basis.

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4. Conclusion

The **Solution Requirements** phase ensures that both the **functional and non-functional aspects** of the *Calculating the Family Expenses in ServiceNow* project are clearly defined and actionable.
By combining automation, validation, and performance standards, the system will deliver a **secure, scalable, and user-friendly solution** for modern family financial management.