

Project Design Phase

Solution Architecture

Date	2 NOVEMBER 2025
Team ID	NM2025TMID09055
Project Name	Calculating Family Expenses using Service Now
Maximum Marks	4 Marks

Solution Architecture:

Goals of the Architecture:

- To record, categorize, and track family expenses efficiently.
- To set and manage budgets for better financial control.
- To generate real-time reports and analytics for insights.
- To provide a simple and user-friendly interface.
- To promote financial awareness and responsible spending.

Key Components:

- **User Management** – Handles user registration, roles, and access control.
- **Expense Tracking** – Records and categorizes all family expenses.
- **Budget Management** – Allows setting and monitoring of monthly or yearly budgets.
- **Reporting & Analytics** – Generates real-time reports and visual dashboards.
- **Notifications & Alerts** – Sends reminders for budgets, bills, and spending limits.
- **Data Security** – Ensures safe storage and protection of financial information.
- **Integration Module** – Connects with other ServiceNow features and external systems.

Development Phases:

- **Requirement Analysis** – Identify user needs and define system functionalities.
- **System Design** – Create architecture, data models, and workflow diagrams.
- **Development & Configuration** – Build and configure modules on the ServiceNow platform.
- **Testing** – Conduct unit, integration, and user acceptance testing to ensure quality.
- **Deployment** – Launch the system for end users on the ServiceNow environment.
- **Maintenance & Updates** – Monitor performance and apply improvements or fixes.

Solution Architecture Description:

The proposed system follows a **modular, layered architecture** built on the **ServiceNow platform** to ensure scalability, security, and performance. The **presentation layer** provides a user-friendly interface for recording and viewing expenses. The **application layer** handles business logic such as budgeting, categorization, and analytics using ServiceNow workflows and automation. The **data layer** securely stores all financial records, user details, and reports in ServiceNow tables. Integration capabilities allow connection with external systems or dashboards, ensuring seamless data flow and real-time insights for effective family expense management.

Example - Solution Architecture Diagram:

