

PROJECT DESIGN PHASE

Solution Architecture

Date	28/10/2025
Team ID	NM2025TMID08189
Project Name	Calculating family expenses using service now
Maximum Marks	4

Goals of the Architecture

- Centralize and automate household expense tracking
- Provide real-time budget monitoring and alerts
- Ensure secure, role-based access to financial data
- Enable visual insights through dashboards and reports

Key Components

- **Custom Tables:** Expense Records, Categories, Budgets, User Roles
- **Service Catalog Form:** For expense submission with optional attachments
- **Flow Designer Workflows:** Trigger alerts when category limits are exceeded
- **Performance Analytics Dashboards:** Visualize monthly and category-wise spending
- **Role-Based Access Model:** Admin, Contributor, Viewer
- **Notification System:** Email/SMS alerts for anomalies or overspending

Development Phases

1. **Design Data Model:** Define tables for expenses, categories, and roles
2. **Build Service Catalog Form:** Enable user-friendly expense logging
3. **Configure Workflows:** Automate alerts and validations

4. **Set Up Dashboards:** Create visual reports using Performance Analytics
5. **Implement Security Rules:** Restrict access based on user roles
6. **Test & Validate:** Run test cases for logging, alerts, and dashboard accuracy

Solution Architecture Description

The architecture for *Calculating Family Expenses using ServiceNow* is designed to streamline financial tracking within households by leveraging ServiceNow's low-code capabilities. It begins with a structured data model that captures expenses, categories, and user roles. A Service Catalog form allows contributors to log expenses, optionally attaching receipts or notes. Flow Designer automates budget alerts, while dashboards built with Performance Analytics provide real-time insights.

Security is enforced through a role-based access model, ensuring sensitive data is only visible to authorized users. Notifications via email or SMS keep users informed of anomalies. The architecture supports modular expansion, including future integration with banking APIs and mobile interfaces. This design promotes transparency, accountability, and financial discipline in a scalable and user-friendly manner.