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Project Title	Calculating Family Expenses using ServiceNow
Team ID	NM2025TMID08734

Solution Architecture

Project Design Phase – Calculating Family Expenses using ServiceNow

1. Overview

The solution architecture provides a clear technical blueprint for automating and managing family expenses through the ServiceNow platform. It ensures seamless data flow, automation of processes, and real-time analytics for effective financial management.

2. Architectural Layers

User Interface Layer: Enables users to access dashboards, enter expenses, and view reports through ServiceNow portals and mobile applications.

Application Layer: Comprises Flow Designer, Business Rules, and Script Includes to handle logic for expense tracking, approval workflows, and automatic budget calculations.

Data Layer: Stores expense data, family member profiles, and budget categories securely in ServiceNow tables.

Integration Layer: Uses Integration Hub and REST APIs to connect with external finance systems and send email/SMS notifications.

Analytics Layer: Uses Performance Analytics and reporting dashboards for visual insights into monthly or annual family expenses.

Security Layer: Enforces ACLs and Role-Based Access Controls (RBAC) to protect sensitive data.

3. System Flow

The architecture ensures a systematic process where users enter expenses, the system validates data, triggers automated calculations and approvals, stores results securely, and displays insights through dashboards.

4. Benefits

- Automated calculations and approval workflows
- Real-time data visualization and analytics
- Secure and centralized data management
- Scalability for multiple family members and expense categories

Solution Architecture Diagram

Solution Architecture

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