Project Design Phase

Solution Architecture

Date	02 NOV 2025
Team ID	NM2025TMID00940
Project Name	Calculating Family Expenses Using ServiceNow
Maximum Marks	4 Marks

Solution Architecture:

Goals of the Architecture:

- Automate the calculation and tracking of family expenses using ServiceNow.
- Improve financial transparency among family members.
- Reduce manual tracking errors through workflows and business rules.
- Provide real-time insights through dynamic reports and dashboards.

Key Components:

- Expense Table (records transactions with amount, date, and category).
- Budget Table (sets monthly spending limits).
- User Table (maintains family member data).
- Business Rules & Workflows (automate calculations and notifications).
- Dashboard Reports (summarize total and categorized spending trends).

Development Phases:

1. Design and create family member profiles.
2. Build the expense entry and category management modules.
3. Develop budget workflows and validation rules.
4. Integrate automated monthly report generation.
5. Test system behavior under multiple user expense scenarios.

Solution Architecture Description:

The solution architecture for "Calculating Family Expenses Using ServiceNow" aims to simplify and automate household financial management. The system uses ServiceNow's platform to link expense, user, and budget tables through workflows and business rules. When users record expenses, workflows automatically categorize data and update budget balances. Dashboards provide real-time summaries of total and categorized expenses, offering a clear view of monthly and yearly spending. This architecture enhances financial accuracy, promotes accountability, and

leverages ServiceNow automation to ensure reliability and scalability for multi-user family environments.

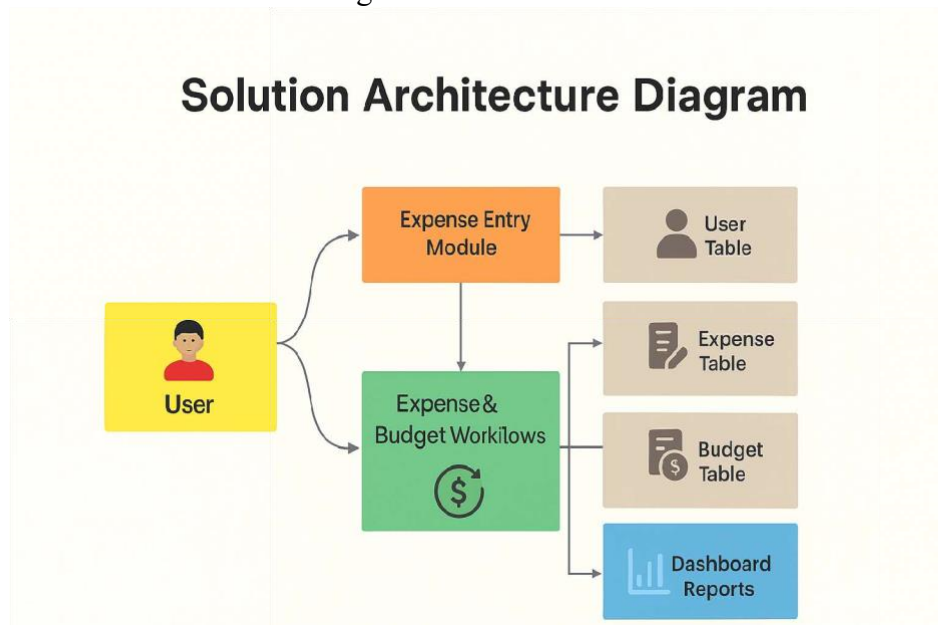Example - Solution Architecture Diagram:

Figure 1: Architecture and data flow of the Calculating Family Expenses Using ServiceNow application.