Project Design Phase
Solution Architecture

Date	02 NOV 2025
Team ID	NM2025TMID03531
Project Name	Calculating Family Expenses using Service Now
Maximum Marks	4 Marks

Solution Architecture:

Goals of the Architecture:

- Automate the process of calculating and consolidating family expenses.
- Eliminate manual errors and duplication of expense entries.
- Ensure real-time synchronization between daily and family expense records.
- Provide accurate financial tracking and reporting using ServiceNow automation.

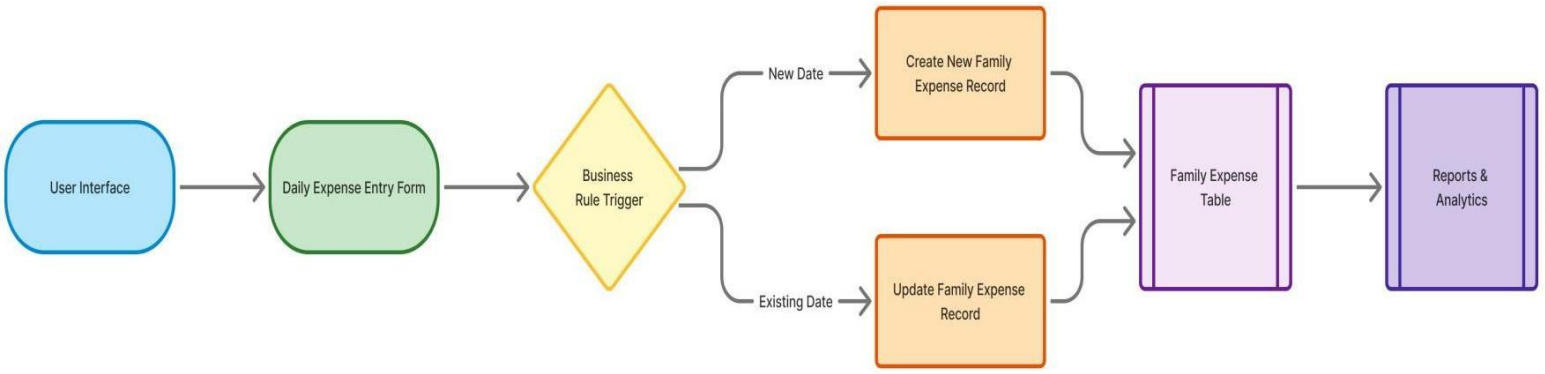
Key Components:

- u_daily_expenses table – Stores individual daily expenses (date, member, amount).
- u_family_expenses table – Maintains total family expenses aggregated by date.
- Business Rule (after insert) – Triggers when a new daily expense is added.
- GlideRecord logic – Checks for existing family expense entries and updates totals automatically.
- Reports module – Displays daily, weekly, and monthly expense summaries.

Development Phases:

1. Create and configure custom tables – u_daily_expenses and u_family_expenses.
2. Build form layouts for daily expense entry.
3. Write and activate a Business Rule on the Daily Expense table.
4. Implement script logic to add expenses to existing family records (based on date).
5. Test scenarios:
   - ✓ Add daily expense for new date → new record in family table.
   - ✓ Add daily expense for existing date → update total amount.
6. Generate family expense reports and verify accuracy.

Solution Architecture Description:



The solution architecture for **"Calculating Family Expenses using ServiceNow"** is designed to automate financial data management through ServiceNow's scripting and workflow features.It utilizes two interconnected tables — **Daily Expense** and **Family Expense** — to maintain accurate expense records.

When a user enters a new daily expense, a **Business Rule** executes to check if a family expense record already exists for that date.
If yes, it updates the total amount; if not, it creates a new entry.
This ensures **data integrity**, **no duplication**, and **real-time aggregation**.
The architecture promotes efficient budgeting, easy tracking, and reliable financial insights for users.