

Project Design Phase-II

Technology Stack (Architecture & Stack)

Date	2 November 2025
Team ID	NM2025TMID05198
Project Name	Calculating Family Expenses using ServiceNow
Maximum Marks	4 Marks

Technical Architecture:

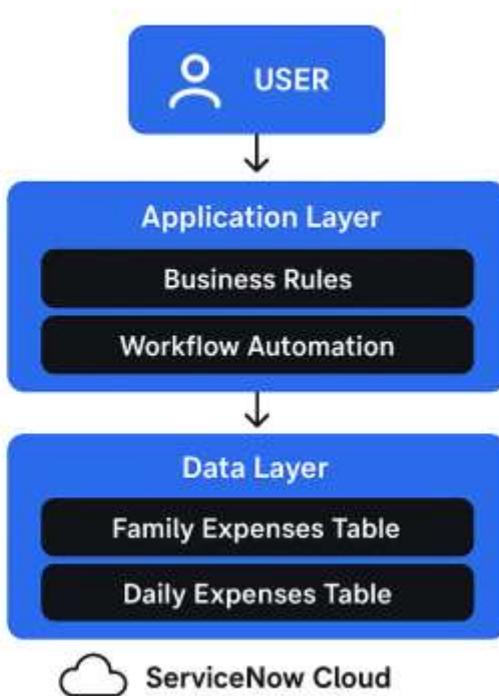


Table-1 : Components & Technologies:

S.No	Component Description	Technology
1.	User Interface – Users interact with ServiceNow forms to record expenses.	ServiceNow Web UI
2.	Application Logic – 1 – Captures user input and stores daily expenses.	ServiceNow Form Design
3.	Application Logic – 2 – Automates total calculations and updates family expense summary.	Business Rule Script (GlideRecord)
4.	Application Logic – 3 – Maintains relationship between <i>Family Expenses</i> and <i>Daily Expenses</i> .	Table Relationship in ServiceNow
5.	Database – Stores all expense data in ServiceNow tables.	ServiceNow Database Tables
6.	Cloud Database – Managed automatically by ServiceNow's cloud infrastructure.	ServiceNow Cloud Database
7.	File Storage – Minimal; logs stored internally.	System Logs in ServiceNow
8.	External API – 1 (Optional) – Future scope: Integration with budgeting or finance apps.	REST API (ServiceNow Integration)
9.	External API – 2	Not applicable currently.
10.	Machine Learning Model	Not applicable in this version.
11.	Infrastructure (Server / Cloud) – Hosted and managed by ServiceNow Cloud SaaS platform.	ServiceNow Cloud (SaaS)

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Not applicable (ServiceNow is proprietary).	—
2.	Security Implementations	Role-based access control ensures only authorized users can add/edit data.	ServiceNow ACLs, Scoped Application
3.	Scalable Architecture	Cloud-based design supports unlimited data and multiple users.	ServiceNow Cloud Architecture
4.	Availability	Hosted on highly available ServiceNow servers.	Load-balanced Cloud Instances

5.	Performance	Real-time updates using asynchronous scripts and indexed queries.	GlideRecord, Background Scripts
6.	Maintainability	Easy to modify forms, scripts, or rules within scoped app.	Update Sets, Scoped App Environment
7.	Integration Capability	Can integrate with other platforms (Google Sheets, financial APIs).	REST Integration API