

PROJECT DESIGN PHASE-II

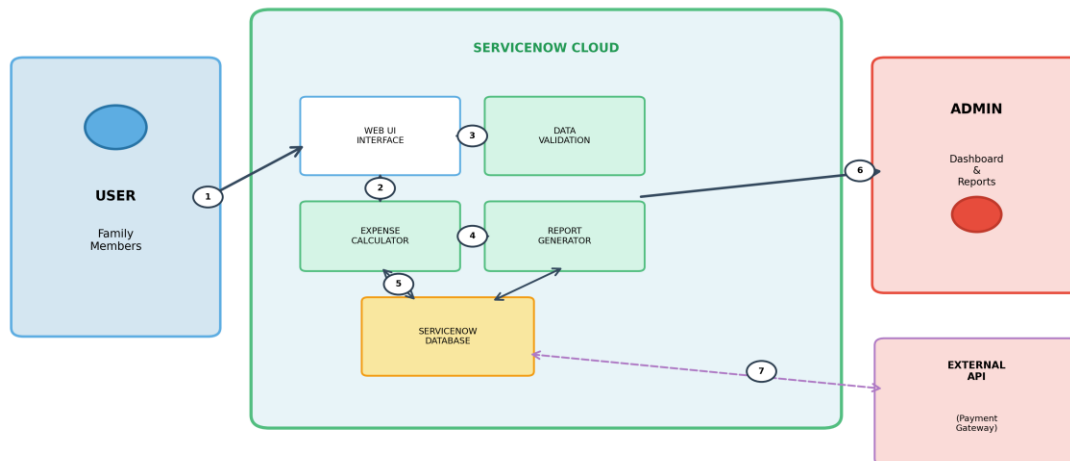
TECHNOLOGY STACK (ARCHITECTURE & STACK)

Date:	2 NOVEMBER 2025
Team ID:	NM2025TMID00668
Project Name:	Calculating Family Expenses using ServiceNow
Maximum Marks:	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

Example: Family Expense Tracking and Calculation System



Guidelines:

- Include all the processes (As an application logic / Technology Block)
- Provide infrastructural demarcation (Local / Cloud)
- Indicate external interfaces (third party API's etc.)
- Indicate Data Storage components / services
- Indicate interface to machine learning models (if applicable)

Table-1: Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Family members interact via Web dashboard in ServiceNow to add expenses	ServiceNow Web UI
2.	Application Logic-1	Captures daily expense entries from users	ServiceNow Flow Designer, Script
3.	Application Logic-2	Calculates total expenses by category and family member	GlideRecord in Server Script
4.	Application Logic-3	Generates expense reports and summaries	ServiceNow Reporting, Scheduled Jobs
5.	Database	Stores family expenses, daily expenses, and member data	ServiceNow Database Tables (Family Expenses, Daily Expenses)
6.	Cloud Database	Managed by ServiceNow cloud backend	ServiceNow Cloud Database
7.	File Storage	Stores receipt attachments and expense documents	ServiceNow Attachments
8.	External API-1	(Optional) Payment gateway integration for bill payments	REST API in ServiceNow
9.	External API-2	(Optional) Bank API for transaction imports	REST API Integration
10.	Machine Learning Model	Not applicable for current use case	-
11.	Infrastructure (Server / Cloud)	Hosted and managed on ServiceNow SaaS platform	ServiceNow Cloud (SaaS)

Table-2: Application Characteristics:

S.No	Component	Description	Technology
1.	Open-Source Frameworks	Not applicable (ServiceNow is proprietary)	-
2.	Security Implementations	Role-based access control, ACLs, data encryption	ACLs, Scoped Applications, Data Security
3.	Scalable Architecture	SaaS-based, horizontally scalable via ServiceNow architecture	ServiceNow Cloud Architecture
4.	Availability	Highly available with ServiceNow cloud hosting	Load-balanced ServiceNow Instances
5.	Performance	Optimized via indexed tables and efficient queries	GlideRecord, Background Scripts, Indexed Tables