

Project Design Phase-II Technology Stack (Architecture & Stack)

Date	24 June 2025
Team ID	LTVIP2025TMID20412
Project Name	Calculating Family Expenses using Service Now
Mentor Name	Dr Shaik Salma Begum
Maximum Marks	4 Marks

Technical Architecture:

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

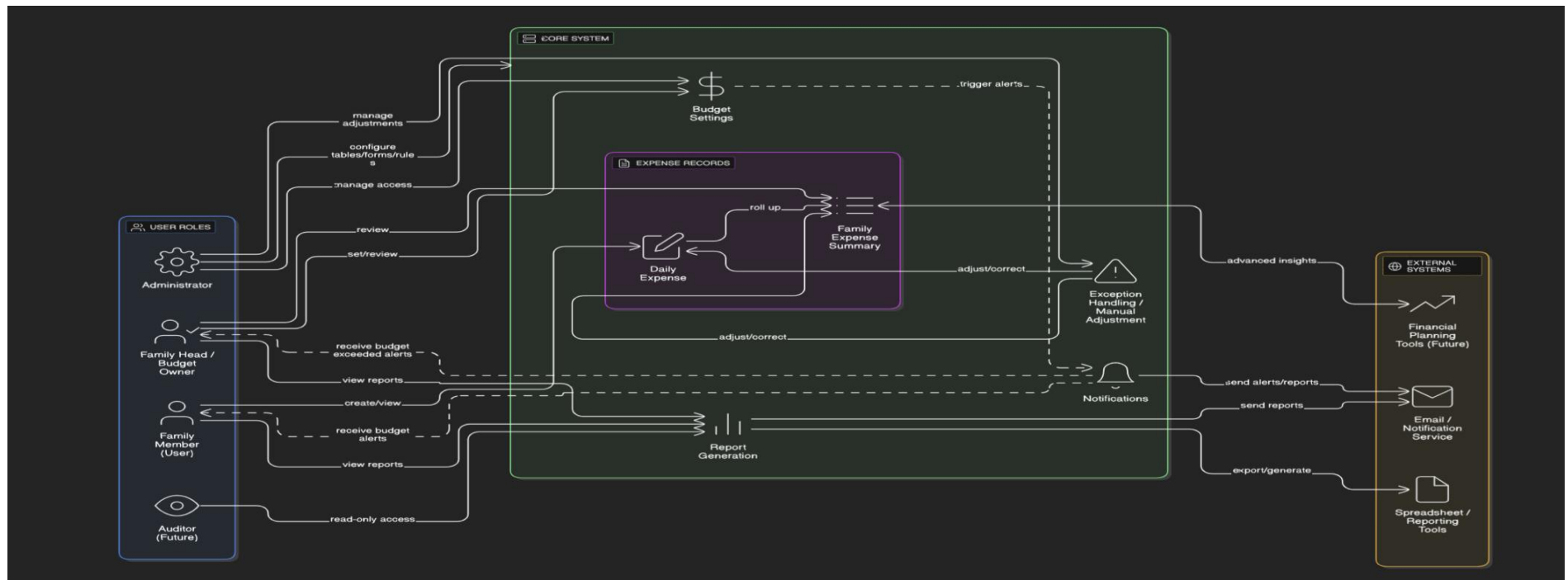


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Web-based ServiceNow forms and lists for managing family and daily expenses	ServiceNow UI Framework (Form Designer, Lists, UI Actions)
2.	Application Logic-1	Dynamic form behavior, field visibility, and validations	ServiceNow Client Scripts, UI Policies (JavaScript, GlideForm API)
3.	Application Logic-2	Business rule automation for insert/update operations, budget monitoring	ServiceNow Flow Designer / Workflow Engine
4.	Application Logic-3	Email notification for budget alerts	ServiceNow Notification Engine
5.	Database	Stores family expense, daily expense, and configuration data	ServiceNow custom tables (Family Expenses, Daily Expenses), MySQL backend
6.	External API-1	Integration with external reporting tools or budget calculators	ServiceNow REST API
7.	Infrastructure (Server / Cloud)	ServiceNow instance hosted in the cloud	ServiceNow Cloud SaaS Platform

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Uses JavaScript for client and server logic, and optional AngularJS within ServiceNow if extended	JavaScript, AngularJS (optional)
2.	Security Implementations	Role-based access control for users (e.g. family member, admin), secure HTTPS connections	ServiceNow ACLs, HTTPS, TLS, platform IAM
3.	Scalable Architecture	Cloud-based, supports adding new tables, fields, and automations as family requirements grow	ServiceNow Cloud Platform, REST APIs
4.	Availability	High availability provided by ServiceNow's cloud infrastructure	ServiceNow Cloud with built-in redundancy
5.	Performance	Optimized workflows, caching mechanisms within ServiceNow, and CDN services for static assets to ensure low latency and high throughput.	ServiceNow Caching Layer, CDN (Akamai or similar)