

<b>Date:</b>	<b>2 November 2025</b>
<b>Project Title:</b>	<b>Calculating Family Expenses using ServiceNow</b>
<b>Team ID:</b>	<b>NM2025TMID08734</b>

# Technology Stack

## Phase: Requirement Analysis

### 1. Platform

- ServiceNow Platform – Main environment for application development and automation.
- ServiceNow App Engine – Used for building custom workflows and apps.

### 2. Front-End Technologies

- ServiceNow UI Builder – For interactive and responsive UI design.
- HTML5 & CSS3 – Layout and styling enhancements.
- JavaScript (Client Scripts, UI Policies) – For form logic and validations.

### 3. Back-End Technologies

- ServiceNow Flow Designer – Automates expense and budget workflows.
- Business Rules (Server Scripts) – Handles backend logic and data validation.
- Script Includes – Reusable backend logic.
- GlideRecord API – Access and manipulate database records.

### 4. Database Layer

- ServiceNow CMDB / Tables – Stores users, expenses, and budgets.
- Data Schema:
  - User Table – User details and authentication.
  - Expense Table – Expense ID, category, amount, date.
  - Budget Table – Budget limits and monitoring.

### 5. Integration Tools

- ServiceNow IntegrationHub – For connecting external systems.
- REST APIs / JSON – Data import/export.
- Google Sheets or Excel Integration – Optional for reporting.

### 6. Analytics and Reporting

- ServiceNow Performance Analytics – Visual dashboards and KPIs.
- Reporting Module – For detailed and summary expense reports.

### 7. Security and Authentication

- Access Control Lists (ACLs) – Manage permissions and roles.
- SSO / OAuth2 – Secure login.
- Data Encryption – Protect sensitive financial data.

### 8. Deployment and Maintenance

- ServiceNow Cloud Instance – Hosted on secure ServiceNow cloud.
- Update Sets – For migrating configurations.
- Version Control – Managed through ServiceNow update management.