

## **Project Design Phase-II**

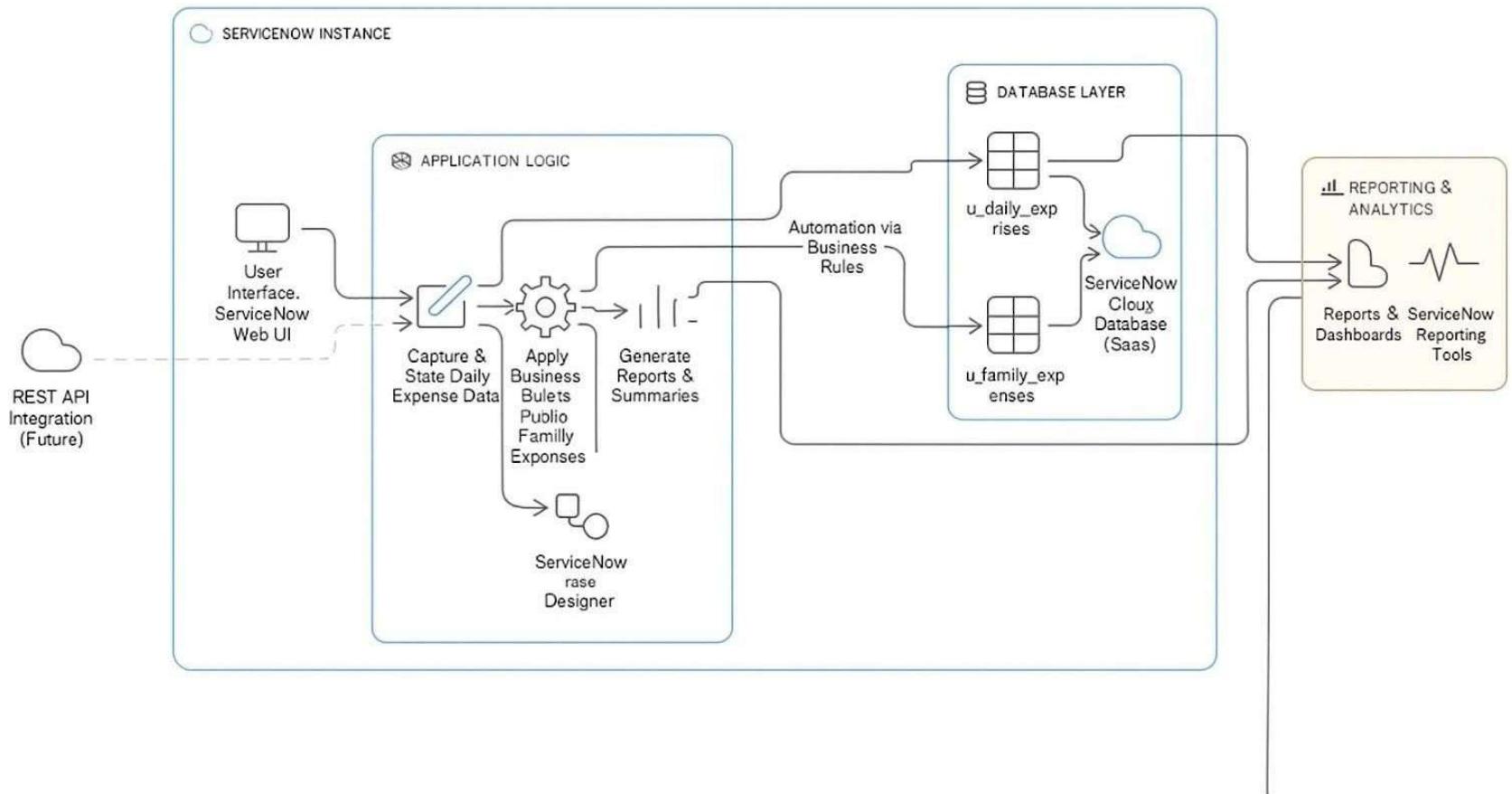
### **Technology Stack(Architecture & Stack)**

|               |  |
|---------------|--|
| Date          | 02 NOVEMBER 2025                             |
| Team ID       | NM2025TMID08441                              |
| Project Name  | Calculating Family Expenses Using ServiceNow |
| Maximum Marks | 4 Marks                                      |

### **Technical Architecture**

This project uses ServiceNow's cloud-based low-code platform to automate expense management.

It includes two primary data tables — Family Expenses and Daily Expenses — linked through a relationship and maintained by a Business Rule for automated updates.



Architecture Diagram

**Flow Summary:**

1. User submits daily expense → stored in Daily Expenses table.
2. Business Rule runs → updates Family Expenses total.
3. Related list displays all daily records linked by date.
4. Data is stored securely in ServiceNow's cloud database.

**Table-1:Components & Technologies**

| S.No | Component           | Description                                       | Technology               |
|------|---------------------|---|--------------------------|
| 1    | User Interface      | Interface for adding and viewing expenses         | ServiceNow Web UI        |
| 2    | Application Logic-1 | Creates and updates Family Expenses automatically | ServiceNow Business Rule |
| 3    | Application Logic-2 | Validates mandatory fields and form layout        | ServiceNow Form Design   |
| 4    | Application Logic-3 | Handles auto-numbering for expense records        | Number Maintenance       |
| 5    | Database            | Stores Family and Daily Expense data              | ServiceNow Tables        |
| 6    | Cloud Hosting       | Hosted and managed in the ServiceNow cloud        | ServiceNow SaaS Platform |

|   |                          |   |                                 |
|---|--------------------------|---|---------------------------------|
| 7 | Notifications (Optional) | Can notify users on new entries                   | ServiceNow Notification Service |
| 8 | External APIs            | Optional integration with financial tracking APIs | REST API in ServiceNow          |

**Table-2: Application Characteristics**

| S.No | Characteristic | Description  | Technology                    |
|------|----------------|--|-------------------------------|
| 1    | Security       | Role-based access to manage data                   | ACLs, Scoped App              |
| 2    | Scalability    | Can handle growing data easily                     | ServiceNow Cloud Architecture |
| 3    | Availability   | 24×7 uptime with ServiceNow hosting                | Load-balanced instances       |
| 4    | Usability      | Simple UI for non-technical users                  | Form-based Design             |
| 5    | Performance    | Optimized using GlideRecord and background scripts | Server-side Scripting         |