

Project Design Phase-II

Data Flow Diagram & User Stories

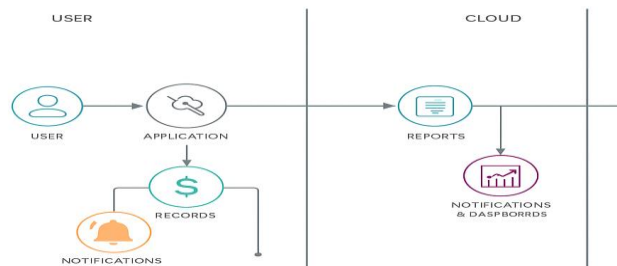
Date	2 NOVEMBER 2025
Team ID	NM2025TMID09055
Project Name	Calculating Family Expenses using Service Now
Maximum Marks	4 Marks

Data Flow Diagrams:

In the project "Family Expense Management System using ServiceNow", Data Flow Diagrams (DFDs) illustrate how expense data moves through the system — from user input to analysis and reporting. The DFD depicts the interaction between the user, the ServiceNow platform, and the database. Users enter expense details, which are processed, categorized, and stored in the database. The system then retrieves this data to generate dashboards, reports, and alerts, enabling real-time financial tracking and decision-making. This ensures accuracy, transparency, and efficient expense management for families.

Example:

Flow



1. User logs into the ServiceNow Family Expense Management System using secure credentials.
2. User enters daily expense details such as category, amount, and date into the system.
3. Application stores the data in the SServiceNow database for processing and record-keeping.
4. System automatically categorizes and analyzes the expenses based on predefined rules.
5. Reports and dashboards are generated in real time to display total spending, category-wise summaries, and budget status.

User Stories:

User Stories table for the project “**Family Expense Calculator**” that defines each user’s needs, key tasks, and acceptance criteria

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
User (Family Member)	Expense Entry	USN-1	As a user, I want to add daily expenses (food, travel, bills, etc.) so that I can track where my money goes.	User can enter expenses with category, date, and amount successfully.	High	Sprint-1
User (Family Member)	Expense Categorization	USN-2	As a user, I want to categorize my expenses (e.g., groceries, rent, utilities) for better financial analysis.	Categories are correctly saved and reflected in summary reports.	Medium	Sprint-1
Admin (Head of Family)	View Summary	USN-3	As an admin, I want to view total expenses by category and month so that I can understand spending patterns.	System displays accurate summary by time period and category.	High	Sprint-1
User (Family Member)	Edit/Delete Entry	USN-4	As a user, I want to modify or delete an expense record in case of an entry error.	System allows editing and deletion with confirmation prompt.	Medium	Sprint-2
Admin (Head of Family)	Set Budget Limits	USN-5	As an admin, I want to set monthly spending limits for each category to manage family finances.	System alerts when expenses exceed set limits.	High	Sprint-2
System (Automatic)	Generate Reports	USN-6	As a system, I should generate visual reports (graphs/charts) showing expense trends.	Reports are displayed clearly and accurately.	Medium	Sprint-2
User (Family Member)	Data Backup	USN-7	As a user, I want to back up my expense data to the cloud to prevent data loss.	Backup completes successfully and can be restored.	Low	Sprint-3
Admin (Head of Family)	Manage Users	USN-8	As an admin, I want to add or remove family members who can record expenses.	System updates user access list correctly.	Medium	Sprint-3