Project Design Phase-II
Data Flow Diagram & User Stories
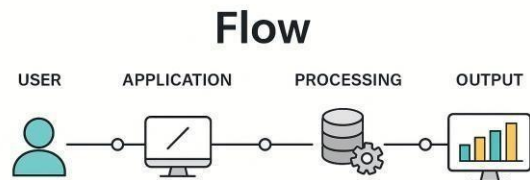
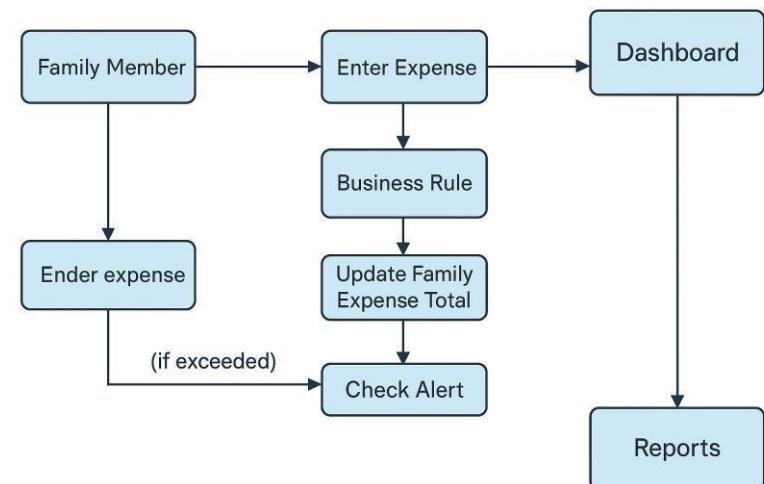| Date	02 NOVEMBER 2025
Team ID	NM2025TMID03685
Project Name	Calculate family expenses using Servicenow
Maximum Marks	4 Marks

Data Flow Diagrams:

A Data Flow Diagram (DFD) visually represents the movement of data within a system. It illustrates how information is entered, processed, stored, and displayed, helping to provide a clear understanding of system functionality.

A well-structured DFD offers a graphical overview of system requirements, as well as the interactions between various components.

Flow

Flow

USER   APPLICATION   PROCESSING   OUTPUT

1. User logs in to ServiceNow and opens the family expense tracking application.
2. User enters a daily expense
3. Daily expense is stored in the Daily Expenses Table
4. Business rule updates the Family Expenses Table
5. Alert is triggered if the budget limit is exceeded
6. Updated expenses are visualized in dashboards

Family Member → Enter Expense → Dashboard

Business Rule

Ender expense

Update Family Expense Total

(if exceeded)

Check Alert

Reports

In the project "Calculate Family Expenses using ServiceNow", the DFD outlines how daily expense data flows throughout the system. It demonstrates how family members enter their expenses, how the system records and stores this information, and how the data is processed to compute total monthly expenses.

The diagram also represents how budget limits are checked and how alerts are triggered when expenses exceed those limits.

Finally, the processed data is displayed to users through summary tables and dashboards, allowing easy monitoring and analysis of overall spending..

Example:
User Stories:
User stories define the expectations and goals of different types of users within the system in a concise and user-centered format.
In this project, user stories ensure that family members can record their expenses conveniently, totals are calculated automatically, and budget limits are effectively tracked and controlled..

User Type	Functional Requirement (Epic)	UserStory Number	User Story / Task	Acceptance criteria	Priority	Release

Family Member / User	Expense Entry	USN-1	As a family member, I want to enter my daily expenses so that my spending is recorded in the system.	The system should allow entry of amount, date, category, and member name without errors.	High	Sprint-1
System (Business Rule)	Automatic Total Calculation	USN-2	As a system, I must automatically update the total family expense when a new expense is recorded.	Total expense should update immediately and accurately after each entry.	High	Sprint-1
Family Admin	Budget Management	USN-3	As a family admin, I want to set a monthly budget limit so that spending can be controlled.	Budget limit must be editable and stored per month.	Medium	Sprint-2