

Data Flow Diagram & User Stories

Project: Calculating Family Expenses Using ServiceNow

This document includes a Data Flow Diagram (DFD) and key user stories for the application that helps families manage expenses using the ServiceNow platform.

User Stories

- As a family member, I want to add expenses with category and amount so that I can track my spending.
- As an admin, I want to view all family expenses so that I can manage budgeting for the household.
- As a user, I want to view monthly reports so that I can understand where money is being spent.
- As a parent, I want to set spending limits for each category so that we stay within our budget.
- As a user, I want to receive alerts when expenses exceed category limits so that I can adjust spending habits.

Data Flow Diagram (DFD - Level 1 Overview)

This level 1 DFD illustrates how data flows through the system. It includes users entering expenses, the processing logic on ServiceNow, and the generation of reports.

Entities:

- User: Inputs expenses and views reports.
- System: Validates, stores, and processes data.
- Database: Stores expense records, categories, users.
- Reports Module: Outputs dashboards, alerts, and monthly summaries.

Data Flow:

1. User submits expense -> System -> Database
2. User requests report -> System -> Reports Module -> Display data
3. System checks limits -> Alerts user if exceeded