

Project Design Phase-II
Data Flow Diagram & User Stories

Date	31 January 2026
Team ID	LTVIP2026TMIDS61777
Project Name	Gemini Pro Financial Decoder
Maximum Marks	4 Marks

1. Data Flow Diagram (DFD)

A Data Flow Diagram represents how data flows within the Gemini Pro Financial Decoder system. It shows how financial data enters the system, how it is processed, and how meaningful insights are delivered back to the user.

In the Gemini Pro Financial Decoder application:

- The user uploads a financial document in CSV or XLSX format.
- The system reads the file using Pandas and converts it into structured data.
- The structured data is formatted into a prompt.
- The prompt is sent to the Google Gemini AI model.
- The AI model generates financial insights and summaries.
- The system displays the AI-generated summary along with calculated metrics and charts.

Level 0 DFD Description

User
↓

```
Upload Financial File
↓
Streamlit Web Application
↓
Data Processing using Pandas
↓
Prompt Formatting
↓
Google Gemini AI
↓
Generated Insights and Visualizations
↓
Display Results to User
```

This DFD clearly shows the flow from user input to AI processing and final output.

2. User Stories

User stories describe system functionality from the user's perspective. They define what the system should do and ensure that development focuses on user needs.

User Type: Customer (Web User)

Functional Requirement: File Upload

User Story Number: USN-1

User Story: As a user, I can upload a financial CSV or Excel file.

Acceptance Criteria: The system accepts valid file formats without errors and displays confirmation.

Priority: High

Release: Sprint-1

User Type: Customer (Web User)

Functional Requirement: Data Display

User Story Number: USN-2

User Story: As a user, I can view the uploaded financial data in a structured table format.

Acceptance Criteria: The uploaded data is correctly displayed after processing.

Priority: High

Release: Sprint-1

User Type: Customer (Web User)

Functional Requirement: Dashboard Metrics

User Story Number: USN-3

User Story: As a user, I can view key financial metrics such as total sales, total units sold, and average price.

Acceptance Criteria: Metrics are calculated accurately and displayed clearly.

Priority: High

Release: Sprint-1

User Type: Customer (Web User)

Functional Requirement: AI Financial Insights

User Story Number: USN-4

User Story: As a user, I can generate AI-based financial summaries from uploaded data.

Acceptance Criteria: The system returns structured, relevant, and meaningful financial insights.

Priority: High

Release: Sprint-1

User Type: Customer (Web User)

Functional Requirement: Data Visualization

User Story Number: USN-5

User Story: As a user, I can view visual charts such as sales by country and sales by product.

Acceptance Criteria: Charts are generated accurately based on the uploaded dataset.

Priority: High

Release: Sprint-1

User Type: Administrator

Functional Requirement: API Key Security

User Story Number: USN-6

User Story: As an administrator, I can securely manage the Gemini API key.

Acceptance Criteria: The API key is stored securely and not exposed in the frontend.

Priority: High

Release: Sprint-1

User Type: Developer

Functional Requirement: Version Control

User Story Number: USN-7

User Story: As a developer, I can maintain and update the project code using version control.

Acceptance Criteria: The project code is structured and maintained in a repository with proper version history.

Priority: Medium

Release: Sprint-1