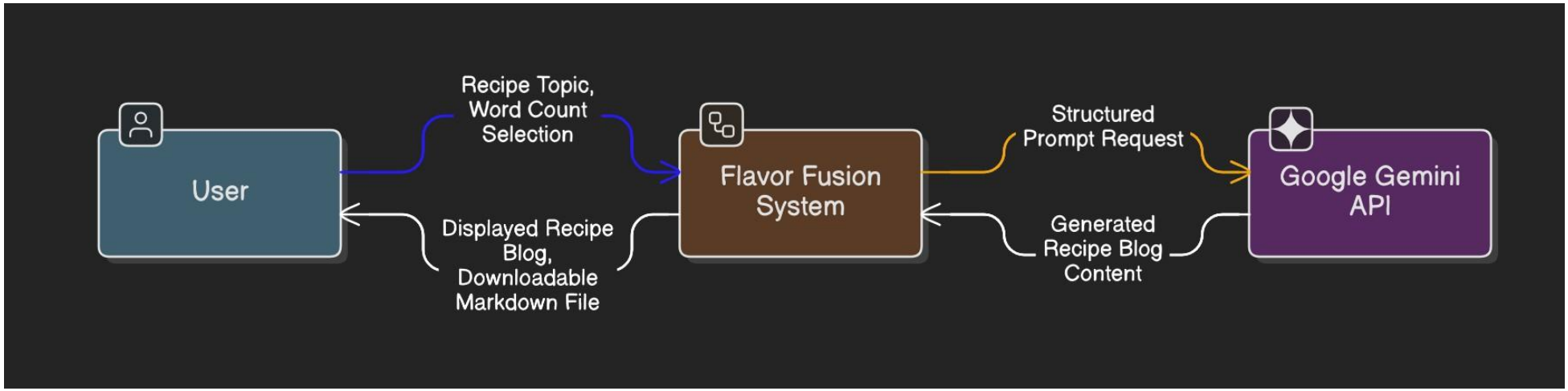
Project Design Phase-II
Data Flow Diagram & User Stories

Date	20 February 2026
Team ID	LTVIP2026TMIDS71298
Project Name	Flavour Fusion: AI-Driven Recipe Blogging
Maximum Marks	4 Marks

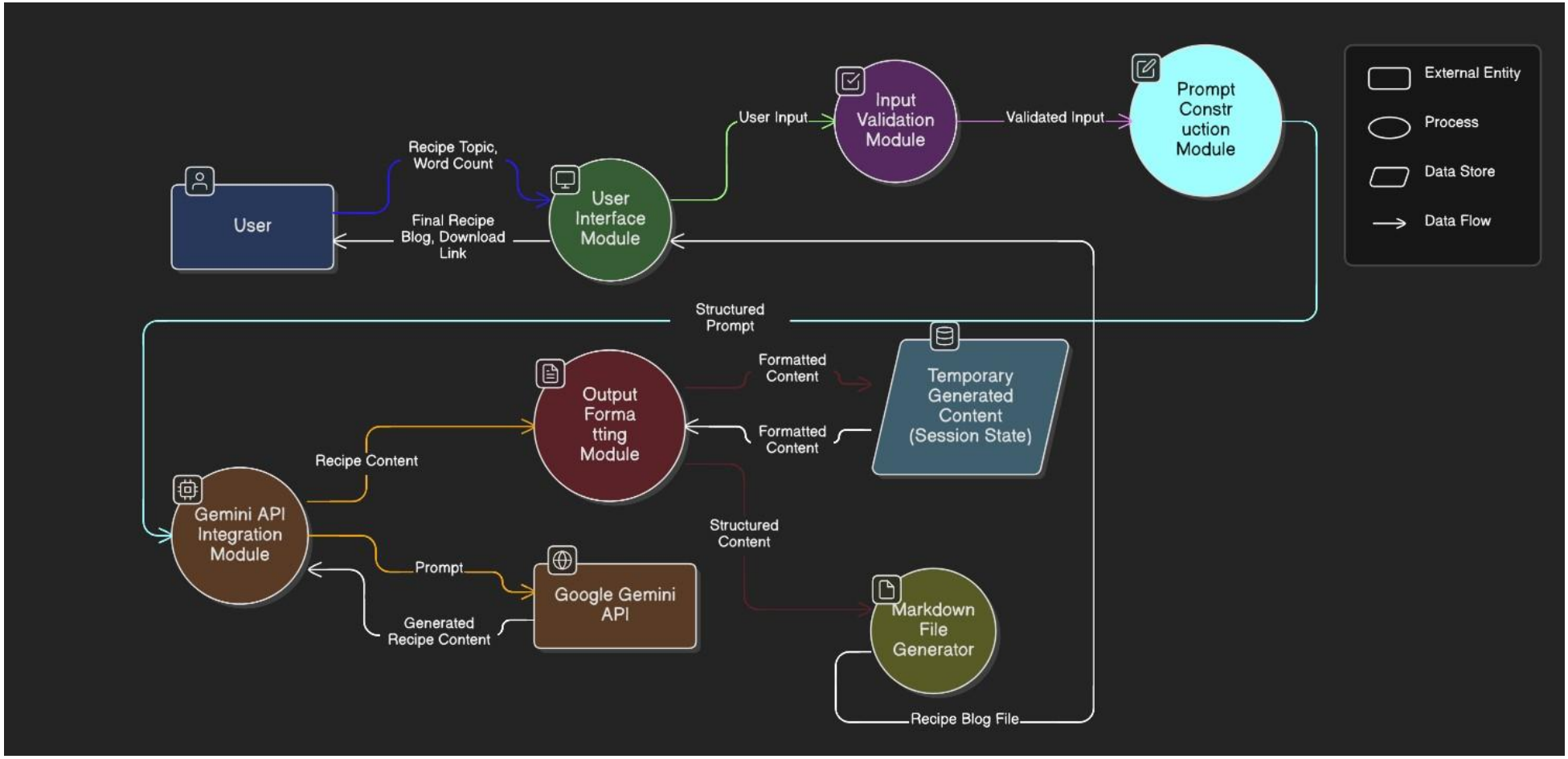
Data Flow Diagrams:

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.

DFD Level 0 (Industry Standard)

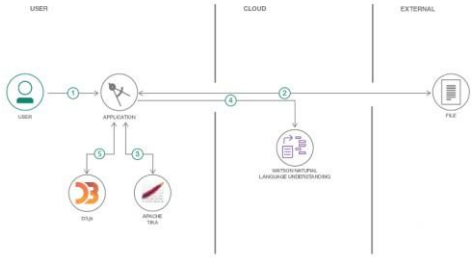


DFD Level 1 (Industry Standard)

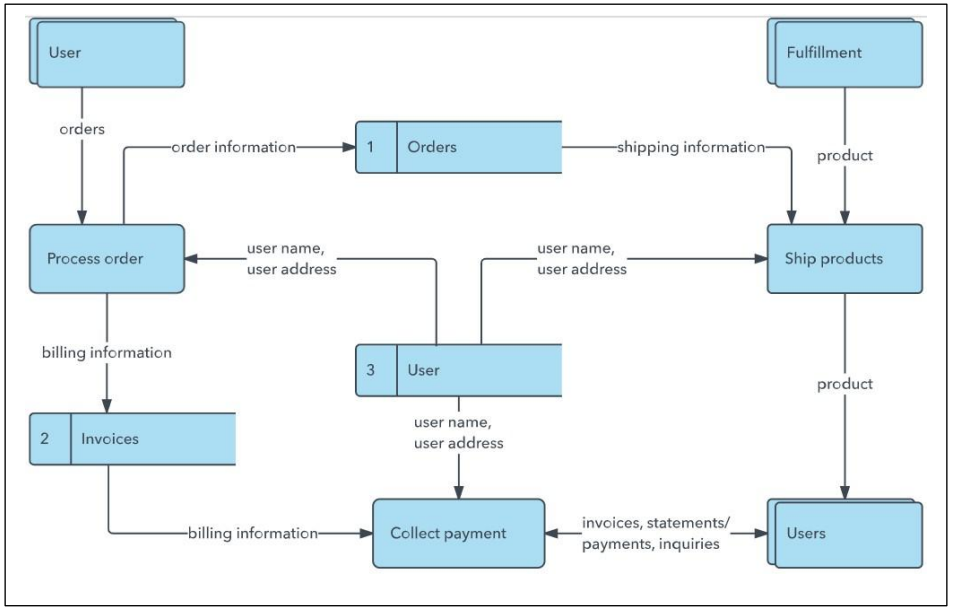


Example:

Flow



1. User configures credentials for the Watson Natural Language Understanding service and starts the app.
2. User selects data file to process and load.
3. Apache Tika extracts text from the data file.
4. Extracted text is passed to Watson NLU for enrichment.
5. Enriched data is visualized in the UI using the D3.js library.



User Stories

Use the below template to list all the user stories for the product.

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance Criteria	Priority	Release
Customer (Web User)	Enter Recipe Topic	USN-1	As a user, I can enter a recipe topic so that I can generate a recipe blog based on it.	The system accepts topic input and displays it correctly before generation.	High	Sprint-1

Customer (Web User)	Select Word Count	USN-2	As a user, I can select the desired word count (100–2000 words) for the recipe blog.	Generated blog approximately matches selected word count range.	High	Sprint-1
Customer (Web User)	AI Recipe Generation	USN-3	As a user, I can generate a structured recipe blog using AI.	The system generates title, introduction, ingredients, and instructions.	High	Sprint-1
Customer (Web User)	Loading Experience	USN-4	As a user, I can see a programming joke while the recipe is being generated.	A random joke is displayed during the loading state.	Medium	Sprint-1
Customer (Web User)	Display Generated Blog	USN-5	As a user, I can view the generated recipe blog directly on the screen.	Generated content appears clearly formatted in the UI.	High	Sprint-1
Customer (Web User)	Download Blog	USN-6	As a user, I can download the generated recipe blog as a Markdown (.md) file.	Clicking download provides a valid .md file containing generated content.	High	Sprint-1
Customer (Web User)	Input Validation	USN-7	As a user, I am prevented from generating a recipe if the topic field is empty.	System shows validation message and blocks generation.	High	Sprint-1
Customer (Web User)	Regenerate Recipe	USN-8	As a user, I can generate a new version of the recipe by changing topic or word count.	New output replaces previous result without system error.	Medium	Sprint-2
System	Gemini API Integration	USN-9	As the system, I must send a structured prompt to Google Gemini API and receive a response.	API request succeeds and returns recipe content.	High	Sprint-1

System	Error Handling	USN-10	As a user, I receive an error message if the AI generation fails.	System displays clear error message without crashing.	Medium	Sprint-2