

Project Design Phase-II

Data Flow Diagram & User Stories

Date	3 February 2026
Team ID	LTVIP2026TMIDS91648
Project Name	Gemini Historical Artifact Description
Maximum Marks	4 Marks

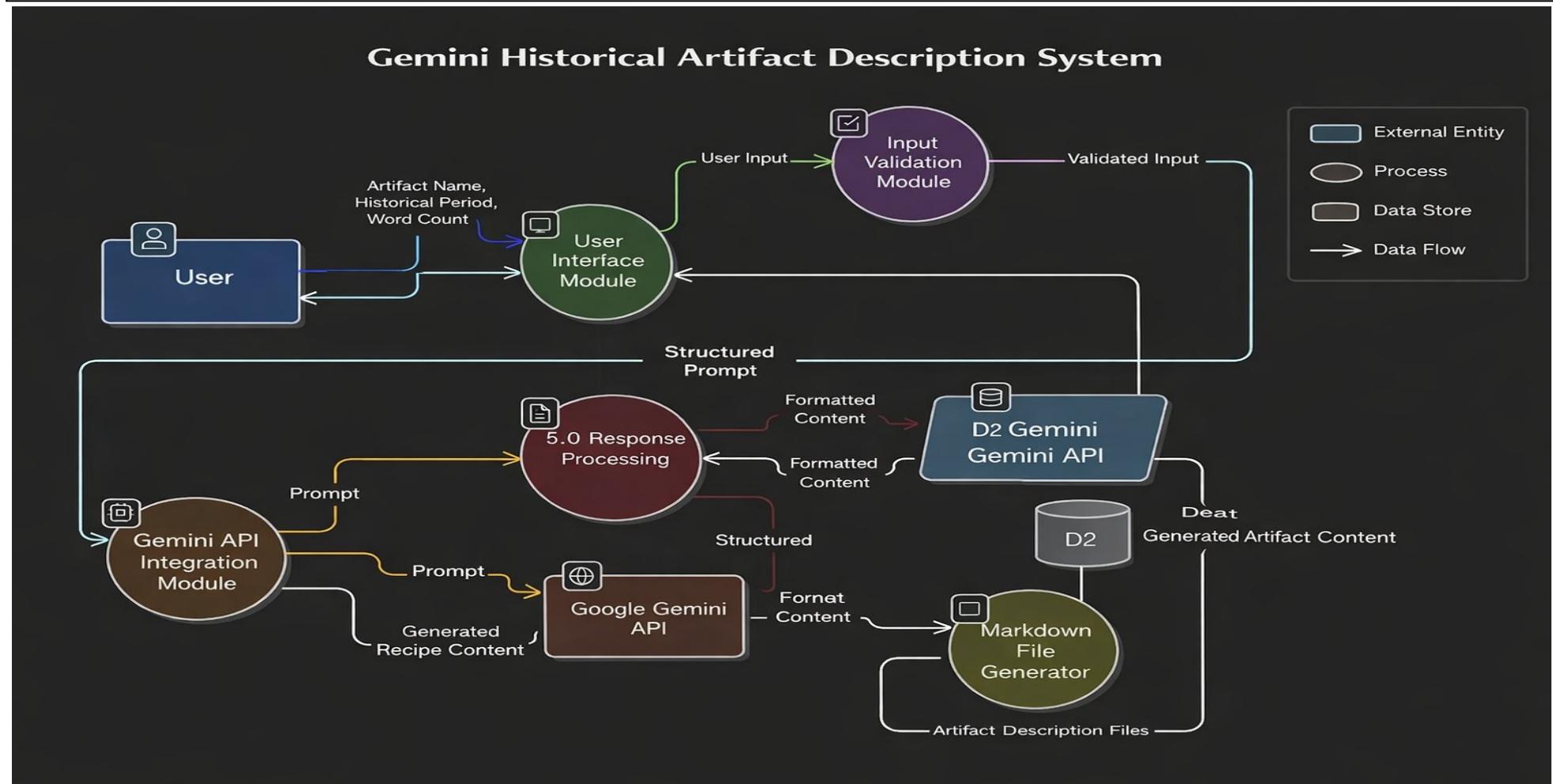
Data Flow Diagrams:

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)

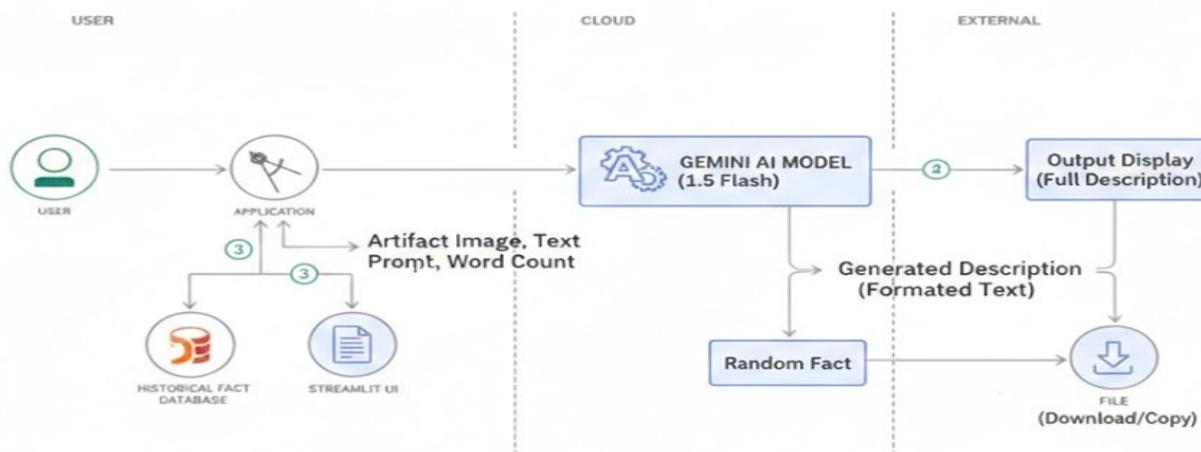


DFD Level 1 (Industry Standard)



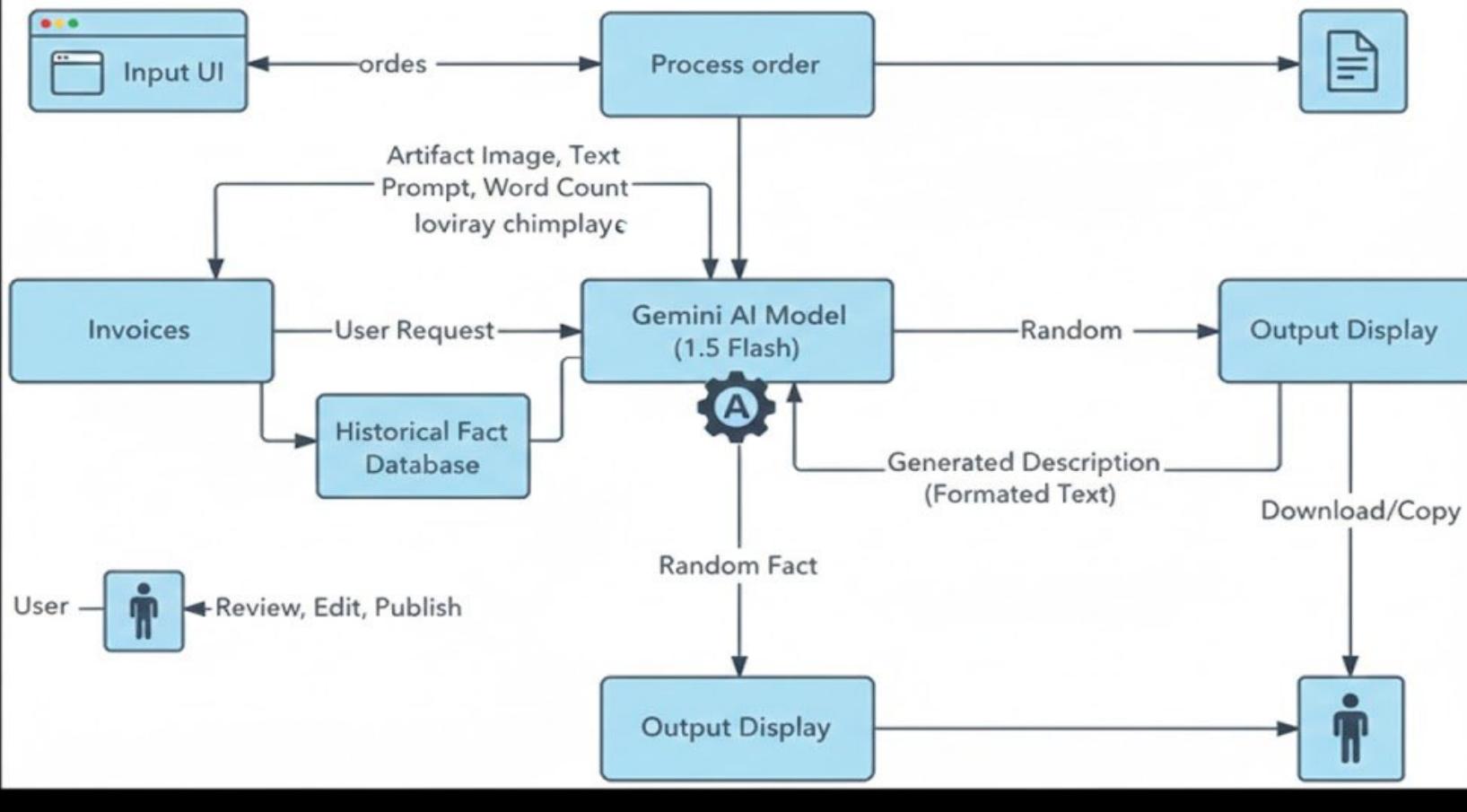
Example:

Gemini Historical Artifact Description App: Flow



1. User interacts with the Streamlit UI in artifact text props, Word Count and load.
2. User interacts with the Streamlit UI in web Image, user waiting.
3. User upload UI Image a random Fact, Historical Fact while waiting.
4. Extracted Tika a is Gemini AI Model, so Output Discription in a File is
5. File (Download/Copy).

Gemini Historical Artifact Description App Architecture



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 Artifact Name	USN-1	As a user, I can enter an artifact name so that I can generate its historical description.	System accepts artifact name and displays it correctly before generation.	High	Sprint-1
Customer (Web User)	Select Word Count	USN-2	As a user, I can select desired word count (500–2000 words).	Generated description approximately matches selected word count.	High	Sprint-1
Customer (Web User)	AI Artifact Generation	USN-3	As a user, I can generate a structured artifact description using AI.	System generates introduction, historical context, artistic style, and significance.	High	Sprint-1
Customer (Web User)	Loading Experience	USN-4	As a user, I can see an interesting historical fact while content is generating.	A random historical fact is displayed during loading.	Medium	Sprint-1
Customer (Web User)	Display Description	USN-5	As a user, I can view the generated artifact description on the screen.	Content appears clearly formatted in UI.	High	Sprint-1

Customer (Web User)	Download PDF	USN-6	As a user, I can download the generated description as a PDF file.	Clicking download provides valid PDF containing generated content.	High	Sprint-1
Customer (Web User)	Input Validation	USN-7	As a user, I am prevented from generating content if artifact 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 regenerate description by changing artifact name or word count.	New output replaces previous result without errors.	Medium	Sprint-2
System	Gemini API Integration	USN-9	As the system, I must send a structured prompt to Google Gemini API and receive response.	API request succeeds and returns artifact content.	High	Sprint-1
System	Error Handling	USN-10	As a user, I receive error message if AI generation fails.	System displays clear error message without crashing.	Medium	Sprint-2