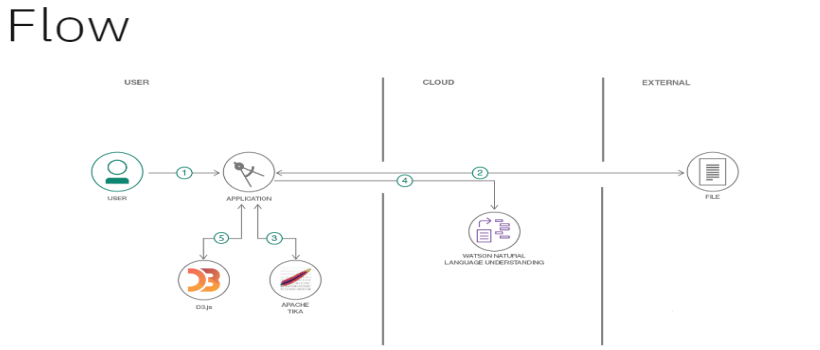
Project Design Phase-II
Data Flow Diagram & User Stories

Date	27 February 2026
Team ID	LTVIP2026TMIDS90853
Project Name	Intelligent SQL Querying with LLMs Using Gemini Pro
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.

Example: (Simplified)



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 (Mobile User)	Registration	USN-1	As a user, I can register using email, password & confirm password	User account created and redirected to dashboard	High	Sprint-1
	Registration	USN-2	As a user, I receive confirmation email after registration	User receives email and activates account successfully	High	Sprint-1
	Registration	USN-3	As a user, I can register using Facebook	User registers and accesses dashboard via Facebook login	Low	Sprint-2
	Registration	USN-4	As a user, I can register using Gmail	User registers and accesses dashboard via Gmail login	Medium	Sprint-1
	Login	USN-5	As a user, I can log in using email & password	Successful login redirects to dashboard	High	Sprint-1
	Dashboard	USN-6	As a user, I can view my dashboard after login	Dashboard loads with user information	High	Sprint-1
	SQL Generation	USN-7	As a user, I can enter a natural language query	Input field accepts text and allows submission	High	Sprint-1
	SQL Generation	USN-8	As a user, I can generate SQL query from my input	Correct SQL query displayed on screen	High	Sprint-1
	Query Execution	USN-9	As a user, I can execute generated SQL query	Query results displayed in tabular format	High	Sprint-2
	File Upload	USN-10	As a user, I can upload schema PDF	File uploads successfully without crash	Medium	Sprint-2
	Query History	USN-11	As a user, I can view previous queries	Query history displayed in dashboard	Medium	Sprint-3

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance Criteria	Priority	Release
Customer (Web User)	UI/UX	USN-12	As a web user, I can access responsive interface	UI adapts properly on desktop browsers	High	Sprint-1
	Performance	USN-13	As a web user, SQL generation should be fast	Query generated within 3 seconds	High	Sprint-3
	Export Feature	USN-14	As a web user, I can download SQL query file	.sql file downloads successfully	Medium	Sprint-4

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance Criteria	Priority	Release
Customer Care Executive	Support Management	USN-15	As a support executive, I can view user issues	List of reported issues visible	Medium	Sprint-3
	Account Assistance	USN-16	As a support executive, I can reset user passwords	Password reset link sent successfully	High	Sprint-3

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance Criteria	Priority	Release
Administrator	User Management	USN-17	As an admin, I can view all registered users	User list displayed with details	High	Sprint-2
	Security	USN-18	As an admin, I can manage API keys securely	API keys stored securely & access controlled	High	Sprint-3
	Monitoring	USN-19	As an admin, I can monitor system performance	Performance metrics visible in admin panel	Medium	Sprint-4
	Deployment	USN-20	As an admin, I can deploy new system updates	System updated without downtime	High	Sprint-4