Project Design Phase-II
Data Flow Diagram & User Stories
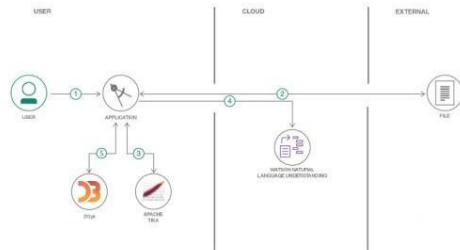
Date	3 July 2025
Team ID	LTVIP2025TMID50773
Project Name	visualizing housing market trends
Maximum Marks	4 Marks

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.
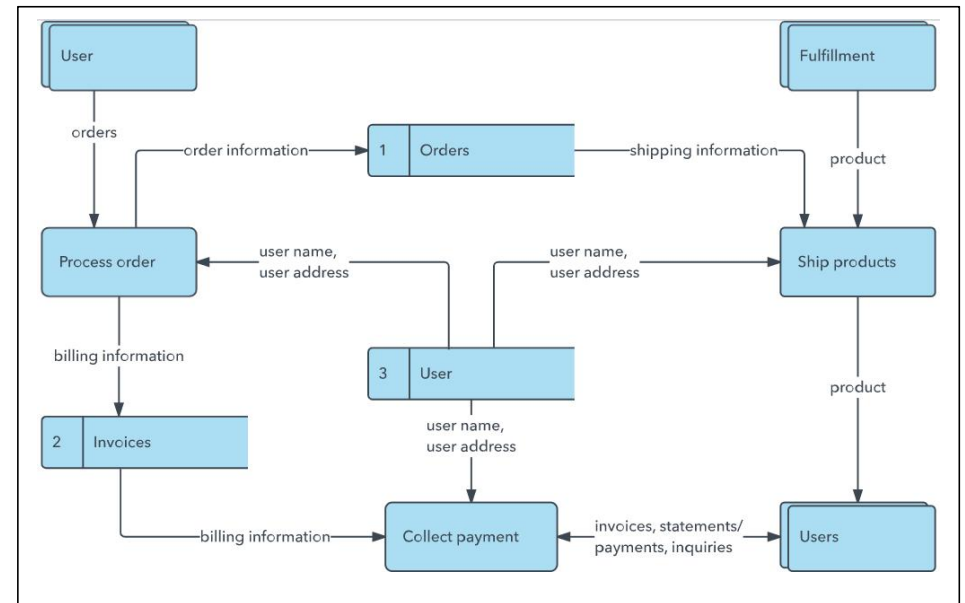
Example: (Simplified)

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.

Example: DFD Level 0 (Industry Standard)

User Stories

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

User Type	Functional Requirement (Epic)	User Story No.	User Story / Task	Acceptance Criteria	Priority	Release
Real Estate Analyst	Load and Clean Housing Data	US-1	As a user, I want to load and clean the housing dataset so that I can prepare it for analysis.	Data loads without missing values or incorrect column names; columns renamed clearly.	High	Sprint 1
Real Estate Analyst	Analyze Renovation & Sale Price	US-2	As a user, I want to analyze sale price trends by years since renovation.	Sales by renovation year are visualized clearly with filters applied.	High	Sprint 2
Real Estate Analyst	Understand House Age Distribution	US-3	As a user, I want to view age distribution of houses by bedrooms and bathrooms.	Grouped bar chart displays clear comparison by bedrooms/bathrooms/floors.	High	Sprint 2
Real Estate Analyst	Evaluate Renovation Impact	US-4	As a user, I want to see renovated vs. non-renovated house ratios.	Pie chart shows accurate % of renovated vs. non-renovated houses.	Medium	Sprint 2
Real Estate Analyst	Dashboard Visualization	US-5	As a user, I want a combined dashboard with filters to explore data interactively.	Dashboard loads fast, filters work (zip code, grade, features), charts are responsive.	High	Sprint 3
Real Estate Analyst	Storytelling with Dashboard	US-6	As a user, I want to go through a story layout to explain housing trends.	Story has 10 slides; flows logically with key insights highlighted.	High	Sprint 3
Real Estate Analyst	Share and Export Insights	US-7	As a user, I want to export and share visualizations with my team.	Ability to publish on Tableau Public or export images/PDFs.	Medium	Sprint 4
Real Estate Analyst	Record a walkthrough for stakeholders	US-8	As a user, I want a short screen recording of the dashboard walkthrough.	Video shows key filters and dashboards in action, duration under 1 min.	Medium	Sprint 4