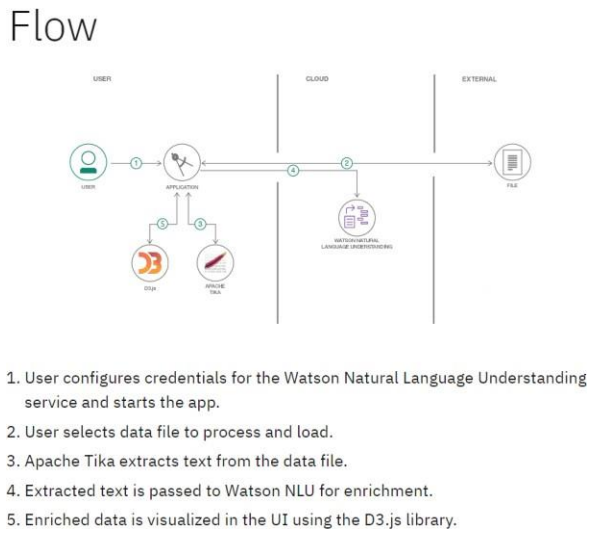
Project Design Phase-II
Data Flow Diagram & User Stories

Date	17 November 2023
Team ID	Team-591780
Project Name	Car Purchase Prediction Using ML
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.

Example: DFD Level 0 (Industry Standard)

User Stories

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Car Buyers	Car Purchase Prediction	USN-1	As a car buyer, I want to input details about the car I'm interested in purchasing, such as make, model, year, and mileage, so that the ML model can predict the likelihood of a successful purchase.	• The system should allow the user to enter details for the car, including make, model, year, and mileage. • The ML model should process the input data and provide a prediction on the likelihood of a successful car purchase. • The prediction should be displayed to the user along with a confidence score.	High	Version 1.0
System Administrators	Model Management	USN-2	As a system administrator, I want to be able to update the machine learning model with new data periodically, so that the prediction accuracy remains high.	• The system should provide an interface for administrators to upload new training data.	Medium	Version 1.1

				• The ML model should be retrained periodically with the new data to improve prediction accuracy. • The system should log the training process and notify administrators of any issues.		
Marketing Team	Customer Segmentation	USN-3	As a member of the marketing team, I want to be able to segment customers based on their predicted likelihood of purchasing a car, so that I can target marketing campaigns more effectively.	• The system should provide a feature to segment customers into high, medium, and low likelihood of purchase categories. • The marketing team should be able to export segmented customer lists for targeted campaigns. • The	High	Version 1.2

				segmentation should be based on the predictions generated by the ML model.		
Sales Representatives	Lead Prioritization	USN-4	As a sales representative, I want the system to prioritize leads based on the predicted likelihood of purchase, so that I can focus my efforts on potential customers who are more likely to convert.	• The system should provide a lead dashboard with leads ranked by their predicted likelihood of making a car purchase. • Sales representatives should be able to filter and search leads based on different criteria. • The system should update lead scores in real-time as new data is processed by the ML model.	High	Version-1.2
Customer Support	Prediction Explanation for Users	USN-5	As a customer support representative, I want the ability to explain the prediction results to customers who inquire, so that I can provide transparency and build trust.	• The system should allow customer support	Medium	Version 1.1

				representatives to access detailed explanations for specific predictions made by the ML model. • Explanations should be presented in a user-friendly and non-technical language. • Customer support representatives should be able to generate and share explanation reports with customers upon request.		