Project Design Phase-II
Data Flow Diagram &User Stories

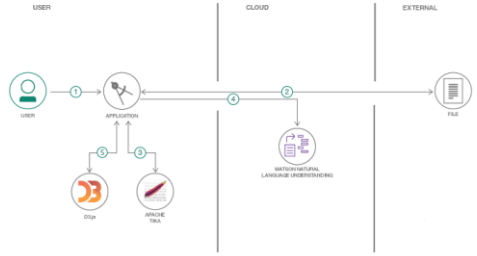
Date	19 October 2022
Team ID	PNT2022TMID25508
Project Name	A NOVEL METHOD FOR HANDWRITTEN DIGIT RECOGNITION
Maximum Marks	4 Marks

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.

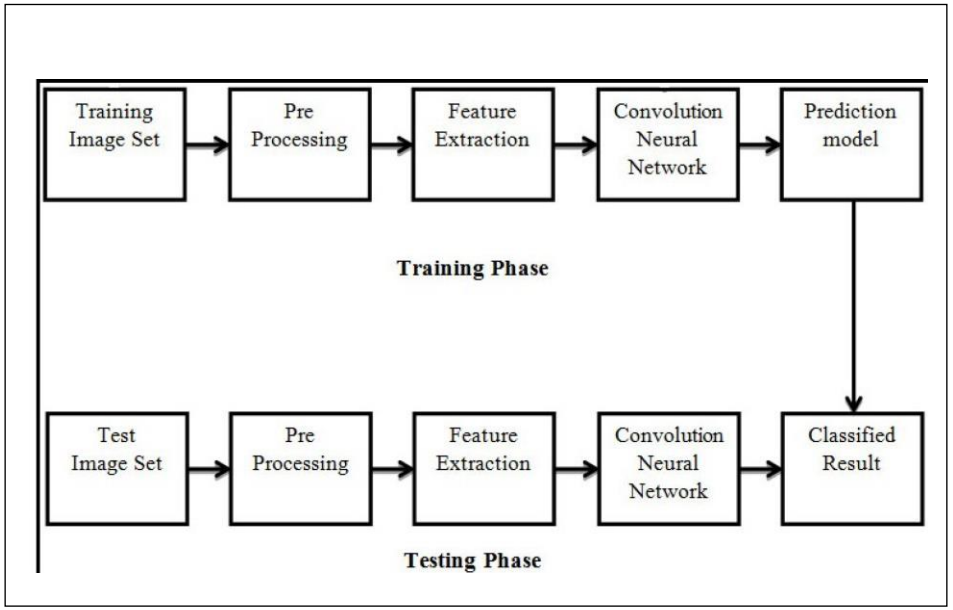
Example: [(Simplified)]

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 Number	User Story / Task	Acceptance criteria	Priority	Release
Transcription analyst	Pre Processing	USN-1	Noise in the digital handwritten image can be reduced.	It uses noise filters.	High	Sprint-1
		USN-2	Blurred image can be modified.	Sobel filter can be used to sharpen the image.	High	Sprint-3
	Feature Extraction	USN-3	How the features can be identified.	By extracting the foreground image from background image.	Low	Sprint-2
		USN-4	How shape edges can be detected.	Curves of the letters can be found.	Medium	Sprint-1
		USN-5	How words are recognized based on sizes.	By identifying the size of the word.	High	Sprint-3
	Prediction	USN-6	How letters are predicted.	By comparing the features of each letter with the features of actual letters.	High	Sprint-4
		USN-7	How capital and small letters identified.	By separating bigger font images with smaller font images.	Low	Sprint-2
	Classified result	USN-8	How the prediction seperates the identification of the digital letter.	It seperates as correctly predicted image and wrongly predicted image.	Medium	Sprint-4
		USN-9	How the words are predicted.	Once the letters are correctly predicted it uses a dictionary to identify the words.	High	Sprint-1