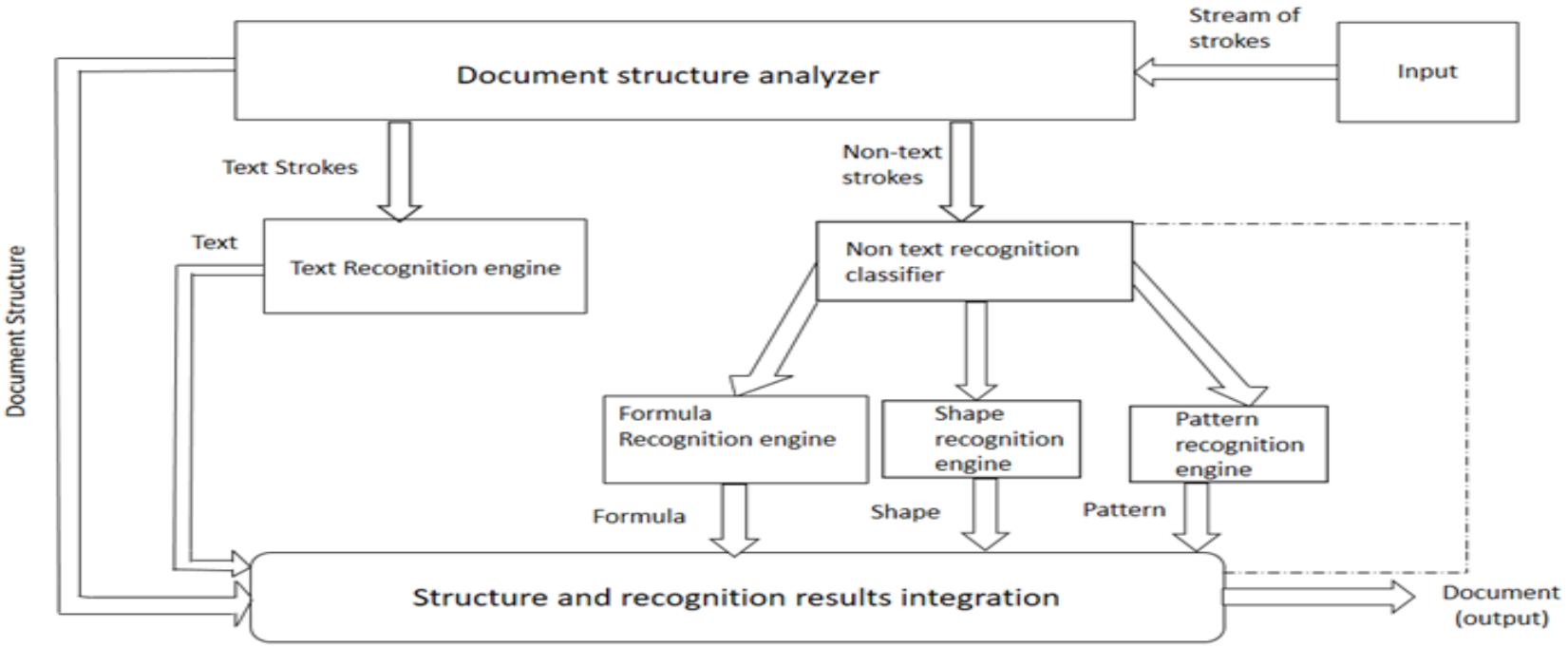
Project Design Phase-II
Data Flow Diagram & User Stories

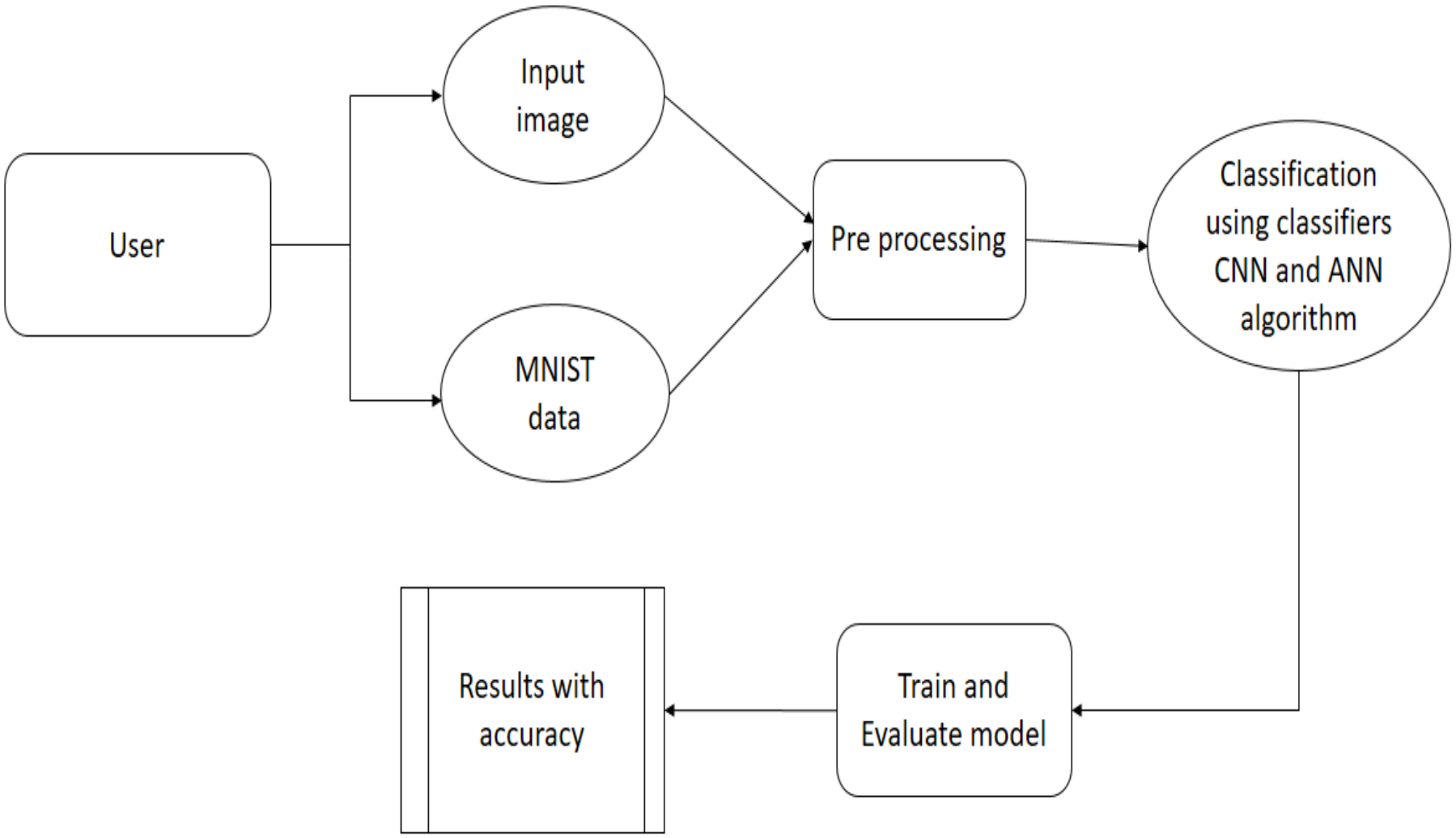
Date	03 October 2022
Team ID	PNT2022TMID32721
Project Name	Project – A Novel method for Handwritten Digit Recognition system
Maximum Marks	4 Marks

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: **DFD level 0(Industry Standard)**



Simplified diagram:



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)	Home	USN-1	As a user, I can use a guided book and get an awareness how to use the application.	I can view the awareness to use the applications and its limitations.	Low	Sprint-1
		USN-2	As a user, I am allowed to read the instructions, do's and don'ts of the application.	I can read instructions also to use it in a user-friendly method.	Medium	Sprint-1
		USN-3	As a user, I am allowed to view guided video to use the interface of the application.	I can gain knowledge to use the application in real time.	Low	Sprint-2
	Pre-processing	USN-4	As a user, I can normalize the pixel values of grayscale images for classification.	I can rescale the image in the range of [0,1]	Medium	Sprint-2
	Classification and recognition	USN-5	As a user, I can upload the input image to be recognized	I can upload the image from local system such as hand-written numbers from post cards, bank cheques etc	High	Sprint-2
		USN-6	As a user, I can user MNIST dataset which has 60,000 training and 10,000 testing samples.	I can access the MNIST dataset for larger input data which provides higher accuracy.	High	Sprint-3
	Predict	USN-7	As a user, I will train and test the input to get the maximum accuracy of output.	I can be able to train and test the application until it gets maximum accuracy of the result.	High	Sprint 4

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
		USN-8	As a user, compare the tested data with trained samples and evaluate the model.	I can be able to get a very high accuracy and the results are saved.	Medium	Sprint 3
Customer (Web user)	Accessibility	USN-9	As a user, I can use the web application virtually anywhere.	The application can be used anywhere at anytime.	High	Sprint 1
		USN-10	As it is an open source, can be used cost freely	I can use it without any payment to be paid for it to access.	Medium	Sprint 4
		USN-11	As it is a web application, it is installation free.	I can use it without the installation of the application or any software.	High	Sprint 4
		USN-12	As it predicts tested data, deep learning algorithms are used.	I can use Convolution Neural Networks and Multilayer Perceptron for deep learning algorithm to classify the images..	High	Sprint 3