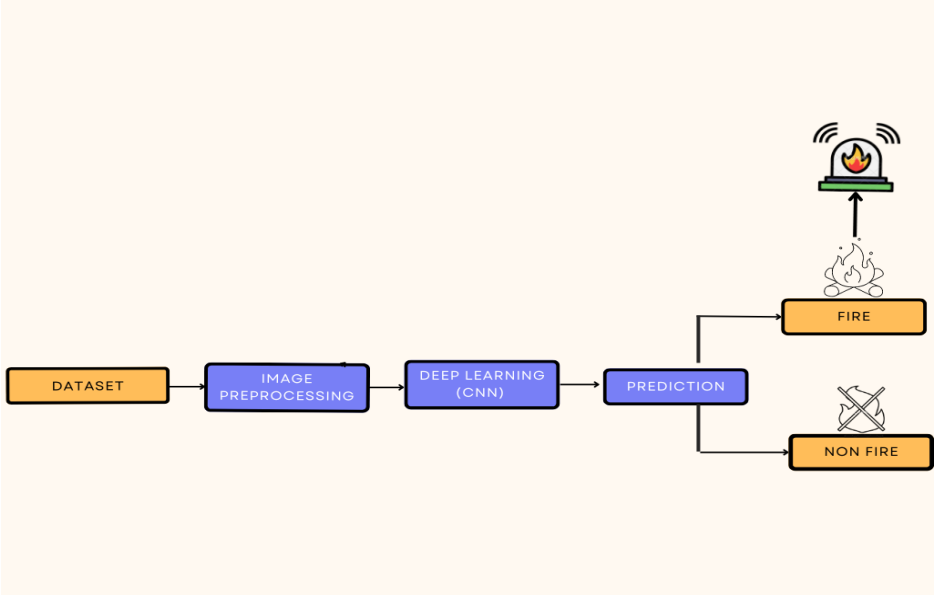
Project Design Phase-II
Data Flow Diagram & User Stories

Date	05 NOVEMBER 2022
Team ID	PNT2022TMID54434
Project Name	Emerging Methods for Early Detection of Forest Fires
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.



Data is collected through surveillance video or image-based approaches.

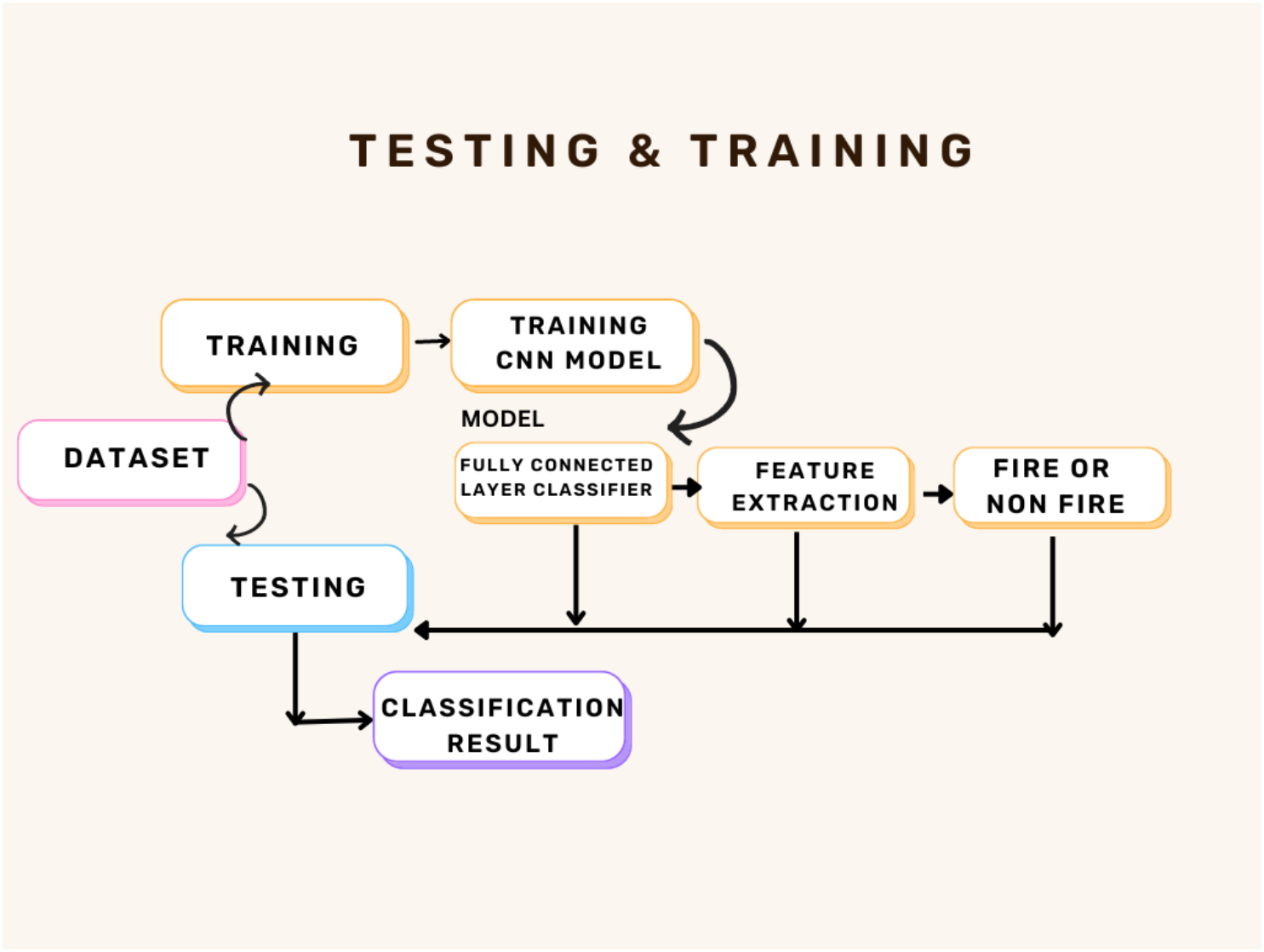
The image is preprocessed by using ImageDataGenerator.

The various real-time forest fire detection and prediction approaches, with the goal of informing the local fire authorities.

If the fire is not detected, it will send the result to the framing camera.

If the forest fire is detected, the alert will send notification messages through a mobile app.

The various real-time forest fire detection and prediction approaches, with the goal of informing the local fire authorities.


TESTING & TRAINING
TRAINING
TRAINING CNN MODEL
DATASET
MODEL
FULLY CONNECTED LAYER CLASSIFIER
FEATURE EXTRACTION
FIRE OR NON FIRE
TESTING
CLASSIFICATION RESULT

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
Environmental list	Collect the data	USN-1	As an Environmentalist.it is necessary to collect the data of the forest which includes data else the temperature,humidity,wind and rain prediction may of the forest	It is necessary to collect the right data else the prediction may of the forest become wrong	High	Sprint 1
	Preprocessing	USN-2	Dataset is further preprocessed by ImageDataGenerator.	The aim of pre-processing is an improvement of the image data that suppresses unwilling distortions or enhances some image features important for further processing.	High	Sprint 2
	Splitting the dataset	USN-3	The collected dataset is split into train and test.	Separating data into training and testing sets is an important part of evaluating data mining models.	High	Sprint 3

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
	Finding the Algorithm	USN-4	Identify the best algorithms that can be used for prediction.	Comparing the Algorithm with other Algorithms to find the best.	Medium	Sprint 4
	Implement Algorithm	USN-5	Identify the accuracy of each algorithm.	Accuracy of each algorithm-calculated so that it is easy to obtain the most accurate output.	High	Sprint 4
	Evaluate accuracy of algorithm	USN-6	Identify accuracy , precision, recall of each algorithms	These values are important for obtaining the right output.	High	Sprint 4
	Prediction	USN-7	Alert notification message is sent when the fire is detected.	It is highly used to predict the effect and to take precautionary measures.	High	Sprint 5