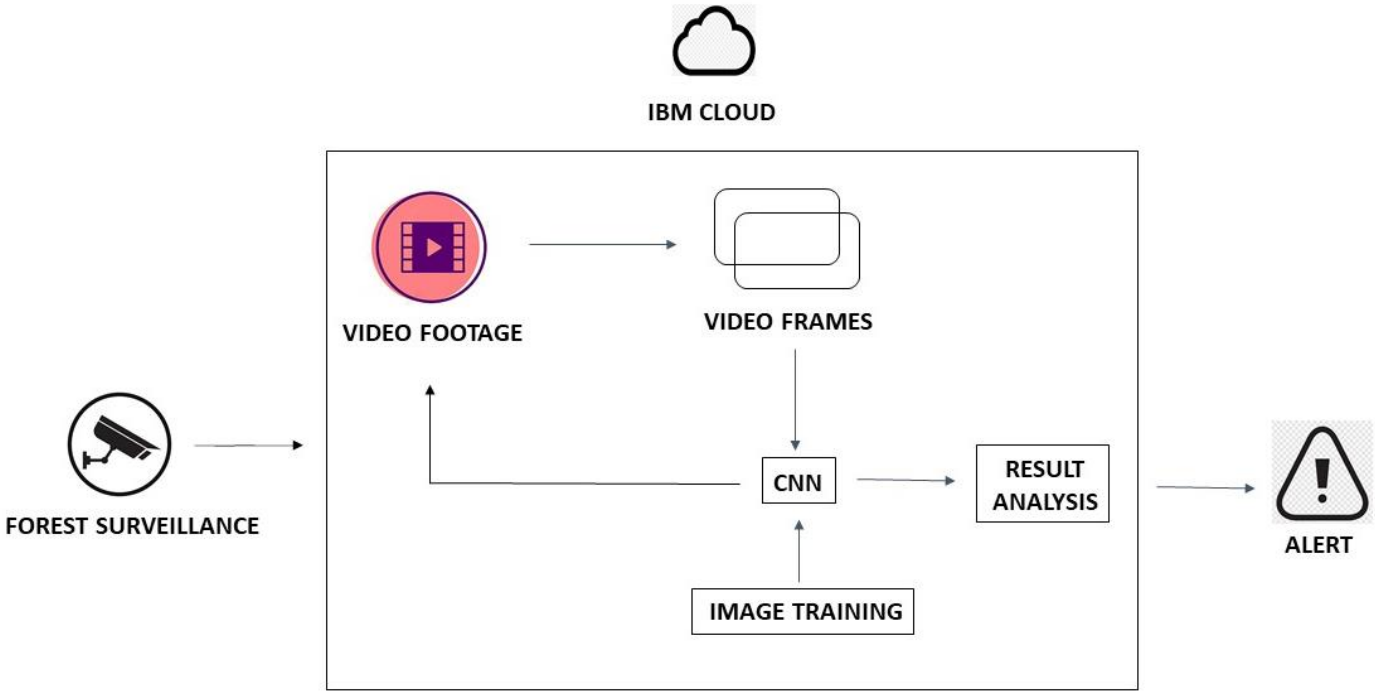
Project Design Phase-II
Data Flow Diagram & User Stories

Date	15 October 2022
Team ID	PNT2022TMID06174
Project Name	Project - Emerging Methods for Early Detection of Forest Fires
Maximum Marks	4 Marks

Data Flow Diagrams:

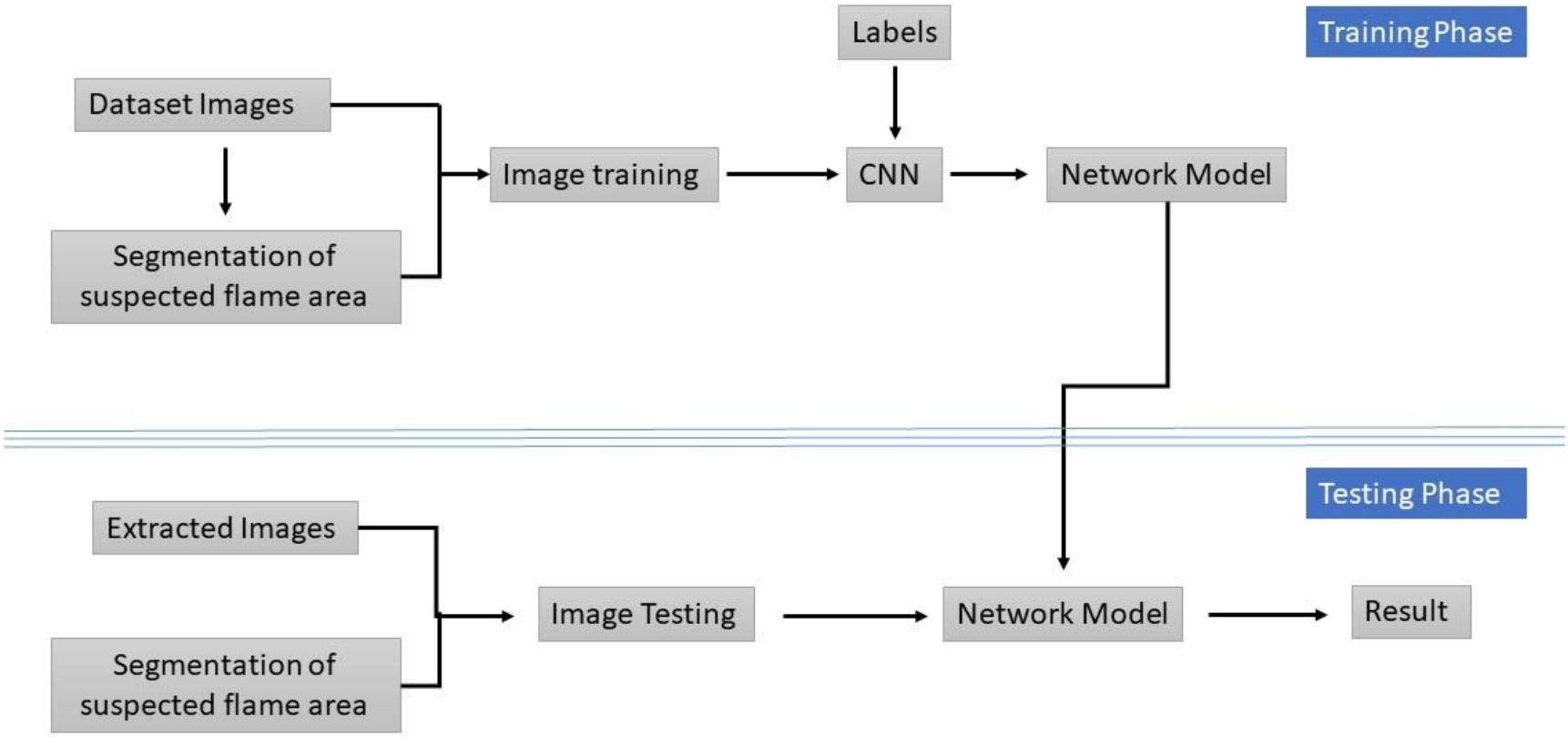
A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.

Data Flow Diagram (Simplified)



1. Getting forest surveillance footage.
2. Converting the video footage into frames.
3. The converted frames are given to CNN model.
4. CNN model predicts the image frames and gives to the python program.
5. The action is performed on the image according to the prediction from the model by the python program.
6. The resultant image can be viewed through the application web UI.

Data Flow Diagram (DFD)



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
Forest Officer	Surveillance	USN-1	As a user, I will get the live video footages of forest area for monitoring	Uploading multiple forest images(.jpg, .png, etc.,)	High	Sprint-2
	Capturing live forest	USN-2	Real time forest Image frames are extracted from video that captured via satellite or drone.	Different forest fire inputs to perform specific action on images.	High	Sprint-1
	Image processing	USN-3	The input images are processed to detect fire spot areas.	Training the model for better accuracy	High	Sprint-1
	Prediction	USN-4	The input frames are predicted based on the developed CNN model	Better accuracy is obtained only by repeated training and testing	Medium	Sprint-2
	Perform action	USN-5	Performing an action on images	Crop, rotate, zoom actions are performed.	High	Sprint-3
	Viewing result	USN-6	Viewing the resultant processed image.	The resultant image is displayed in the web UI.	High	Sprint-4