Project Design Phase-II
Data Flow Diagram & User Stories

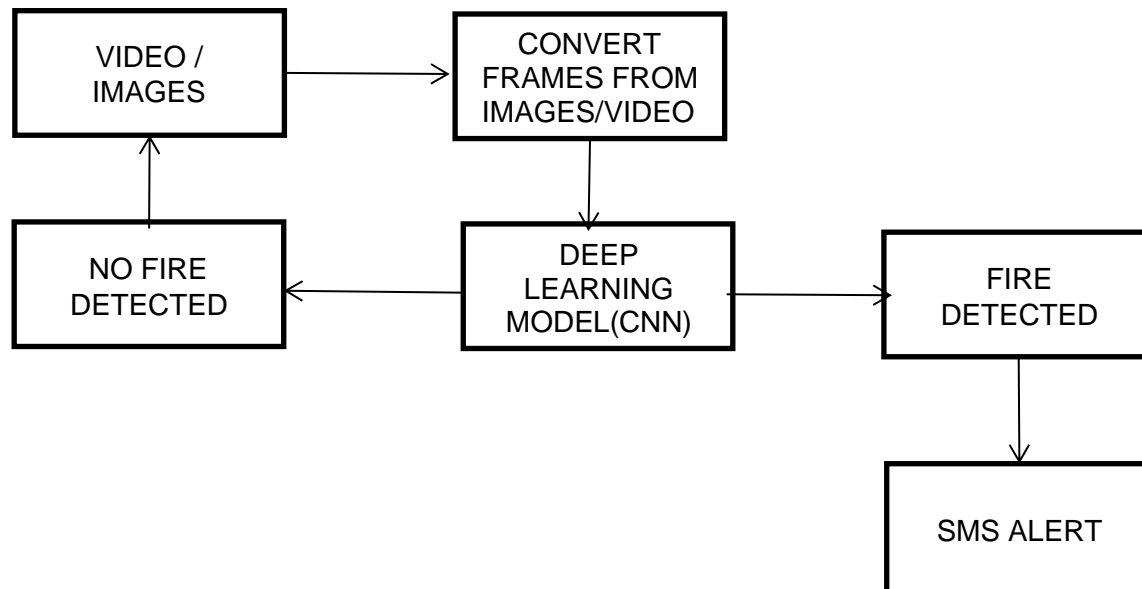| Date	22 October 2022
Team ID	PNT2022TMID17419
Project Name	Emerging Methods for Early Detection of Forest Fires
Maximum Marks	4 Marks

Data Flow Diagrams:

The traditional visual representation of how information moves through a system is a data flow diagram (DFD). A tidy and understandable DFD can graphically represent the appropriate amount of the system requirement. It demonstrates how information enters and exits the system, what modifies the data, and where information is kept.

Example:
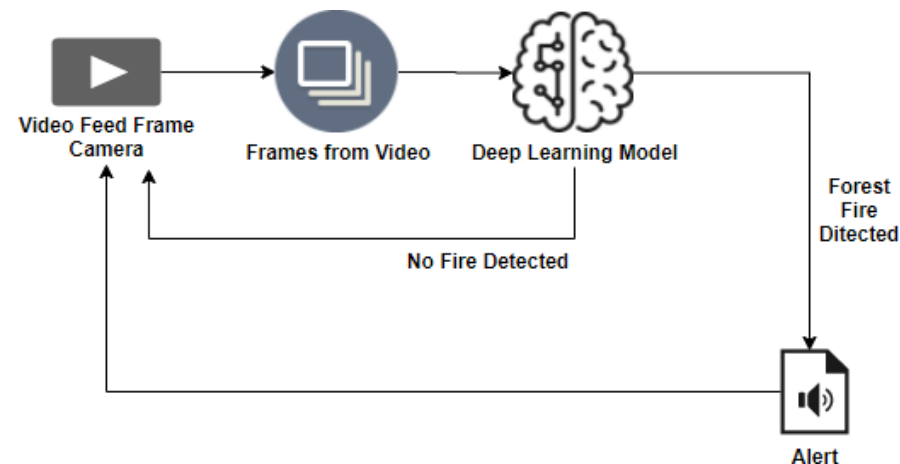
❖ In an under populated forest area, it is challenging to predict and detect forest fires.

❖ If the forecast is made using ground-based methods like camera or video-based approach, it is more complicated.

❖ Due to their reliability and efficiency, satellites can be a valuable source of data both prior to and during the Fire.

❖ the various methods for forecasting and detecting forest fires in real-time, with the aim of informing the local fire authorities.

❖ It will send the outcome to the frame camera if no fire is detected.

DIAGRAM :

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┌─────────────┐        ┌─────────────────┐
│   VIDEO /   │───────▶│    CONVERT      │
│   IMAGES    │        │  FRAMES FROM    │
│             │        │  IMAGES/VIDEO   │
└─────────────┘        └─────────────────┘
      ▲                         │
      │                         ▼
┌─────────────┐        ┌─────────────────┐        ┌─────────────┐
│   NO FIRE   │◀───────│     DEEP        │───────▶│    FIRE     │
│  DETECTED   │        │   LEARNING      │        │  DETECTED   │
│             │        │  MODEL(CNN)     │        │             │
└─────────────┘        └─────────────────┘        └─────────────┘
                                                          │
                                                          ▼
                                                  ┌─────────────┐
                                                  │  SMS ALERT  │
                                                  │             │
                                                  └─────────────┘
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User stories:

Use the below template to list all the user stories for the product.

User Type	Functioal Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Environmentalist	Collect thedata	USN-1	It is necessary for an animal rights activist to gather information about forest fires.	We must collect the correct data.because of prediction.	High	Sprint-1
		USN-2	Determine which algorithms can be used for prediction.	To gather the algorithms and determine each algorithm's accuracy .	Medium	Sprint-2
	Implement Algorithm	USN-3	Determine each algorithm's accuracy.	Accuracy of the algorithm is must to be calculated .	High	Sprint-2
		USN-4	assess the data set.	Data is preprocessing before the training.	High	Sprint-1
	Evaluate Accuracy of Algorithm	USN-5	Decide the precision, accuracy, as well as recall of each algorithm.	Accuracy is important to detect the seviearity of fire	High	Sprint-3