Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	10-11-2022
Team Id	PNT2022TMID26362
Project Name	Project-Early detection of forest fire using deep learning
Maximum marks	4 marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

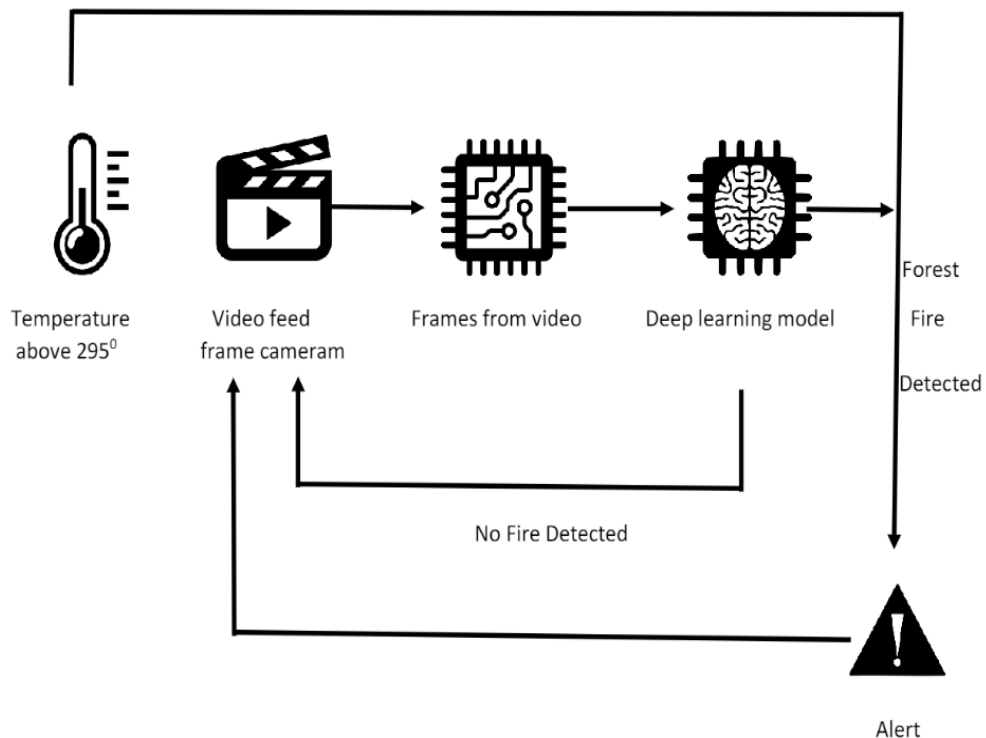**Example**: Emerging Methods for Early Detection of Forest Fires Temperature detected

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc	HTML, CSS, JavaScript / Angular Js / React Js etc
2	Application Logic-1	Logic for a process in the application	Java / Python
3	Application Logic-2	To detect the forest fire with the help of alarm through devices like mobile phone or physical device.	IBM Watson STT service
4	Application Logic-3	To show the number of attempts are successfully detected or not	IBM Watson Assistant
5	Database	Data Type, Configurations etc.	MySQL, NoSQL.
6	Cloud Database	Database Service on Cloud	IBM DB2,
7	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
8	External API-1	Air quality, weather, soil, Co2	getambee
9	External API-2	Purpose of External API used in the application	getambee
10	Machine Learning Model	Purpose of Machine Learning Model	Convolutional Neural Network
11	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local, Cloud Foundry, Kubernetes, etc

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1	Open-Source Frameworks	List the open-source frameworks used	Technology of Open Source framework
2	Security Implementations	Mandatory Access Control	e.g. SHA-256, Encryptions, IAM Controls
3	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	Cloud and Iot services
4	Availability	Load balancing to distribute traffic across servers	IBM load balancer
5	Performance	IBM CDN	IBM content delivery network