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

Date	03October 2022
Team ID	PNT2022TMID21968
Project Name	Project - Emerging Methods for Early Detection of Forest Fires
Maximum Marks	4 Marks

TECHNOLOGY ARCHITECTURE :

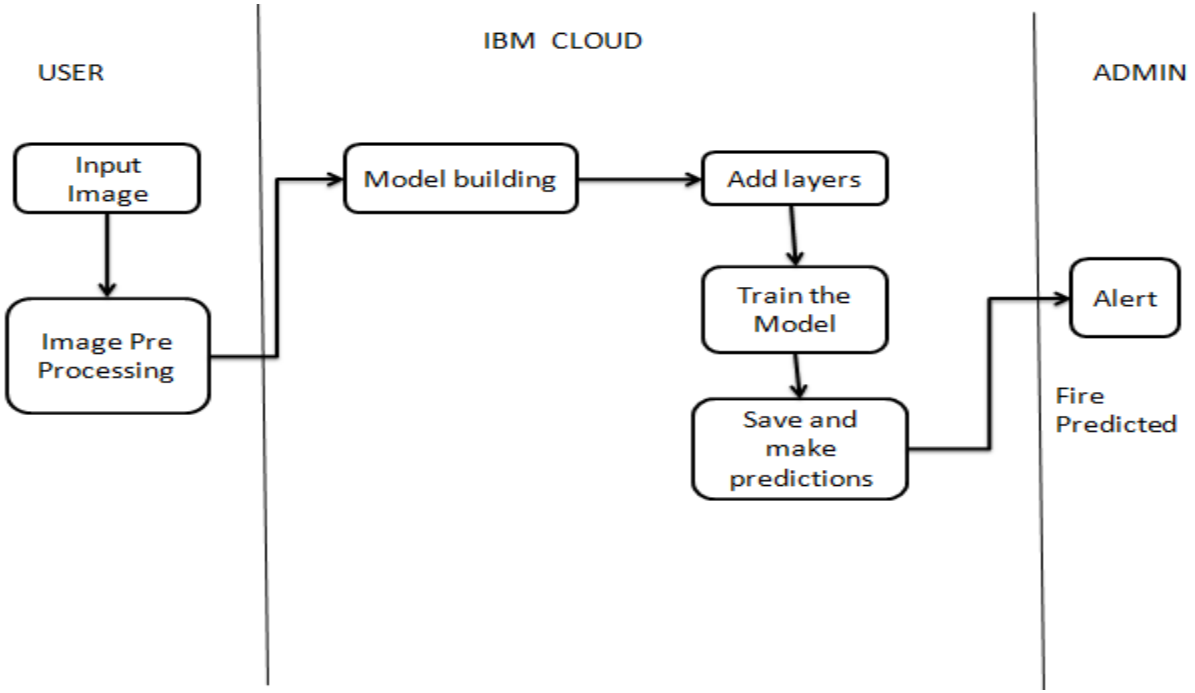

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	Application Logic-USER	Pre processing of input data	Python
2.	Application Logic-CLOUD	Making Predictions	CNN technique - Python
3.	Application Logic-ADMIN	Give alert signal	Alarm , Message notification
4.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloud
5.	File Storage	File storage requirements	IBM Block Storage or Local File system
6.	Machine Learning Model	Purpose of Machine Learning Model	Object Recognition Model
7.	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.	Security Implementations	System has cloud backup and thus secured.	IBM cloud
2.	Scalable Architecture	3 – tier, Putting in more training data into the system will not affect the system.	Convolution Neural network
3.	Availability	Build model is available all the time in IBM cloud.	IBM Cloud storage system
4.	Performance	Putting in more training data into the system will improve the accuracy of its ability to detect a fire	Object Recognition model