

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

Date	27 October 2022
Team ID	https://docs.google.com/document/d/1ACcQB y0buK7spbaD53lGk3lOvzI5ePXuLsYlw5TjKW l/edit?usp=sharing
Project Name	Emerging Methods for Early Detection of Forest Fires
Maximum Marks	4 Marks

Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	User interacts with application.	HTML, CSS, JavaScript.
2.	Application Logic-1	Multiprocessing is a package that supports spawning processes using an API similar to the threading module	Python
3.	Application Logic-2	To train, deploy, and manage your AI models, and prepare and analyse information during a single integrated environment.	IBM Watson STT service
4.	Application Logic-3	This build conversational interfaces into any application, device, or channel	IBM Watson Assistant

5.	Database	It has string, numeric, and date and time, and performs the initial configuration of the MySQL server	MySQL
6.	Cloud Database	It is a database service built and accessed through a cloud platform.	IBM Cloud

7.	File Storage	It can increase storage capacity or modify your performance to quickly adjust to changes in workload demands.	IBM Block Storage
8.	External API-1	It has enhanced security with client id and client secret features	IBM Weather API
9.	Machine Learning Model	To recognize certain types of patterns.	Object Recognition Model
10.	Infrastructure (Server / Cloud)	The simulated environment enforces some sandbox restrictions	Cloud Foundry

Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	It provides Integrated support for unit testing	Python-flask
2.	Security Implementations	Bandit is a tool that can be used during development.	Python(static code analyser)

3.	Scalable Architecture	It can maintain its same coding lingo even if a small garage-based start-up flourishes into a high rise corporate headquarters.	Python
4.	Availability	It offers full-fledged file editor.	Python(IDLE)
5.	Performance	It gives better performance.	Python(library functions)

Technical Architecture:

Video feed frame camera Frames from video Deep learning model



No fire detected



Forest fire Alert Detected

