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

Date	03 October 2022
Team ID	PNT2022TMID04308
Project Name	Project - Natural Disasters Intensity Analysis And Classification Using Artificial Intelligence
Maximum Marks	4 Marks

Technical Architecture:

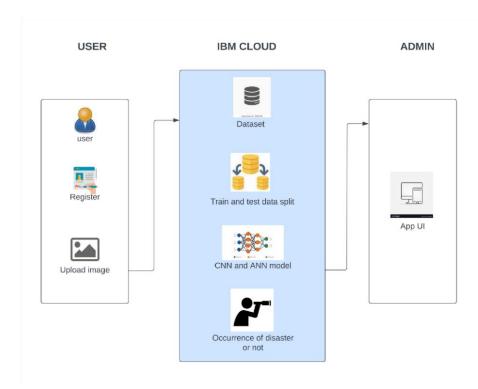


Table-1: Components & Technologies:

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S.No	Component	Description	Technology
1.	User Interface	A website where the user interacts.	HTML, CSS, Js, Python Flask
2.	Data Preprocess	Preprocessing of the dataset	ImageDataGenerator
3.	Classification	Classification of disaster	Python Models
4.	Cloud Database	Database Service on Cloud	IBM Cloud
5.	Deep Learning Model	Classifying the disaster from images and finding the intensity level	CNN+ANN model

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	open-source frameworks used for development	Python, Flask, Python Libraries
2.	Security Implementations	User Authentication	SHA-256 Encryption
3.	Scalable Architecture	The 3-tier architecture (Web, Application, Database) is scalable.	IBM Cloud
4.	Availability	Application made available even under heavy load	IBM Cloud - cloud hosting
5.	Performance	Able to handle multiple requests	IBM Cloud - load balancers