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

Date	15 October 2022
Team ID	PNT2022TMID33170
Project Name	Natural disasters intensity analysis and classification using artificial intelligence
Maximum Marks	4 Marks

Technical Architecture:

frameworks

Client **Server**

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

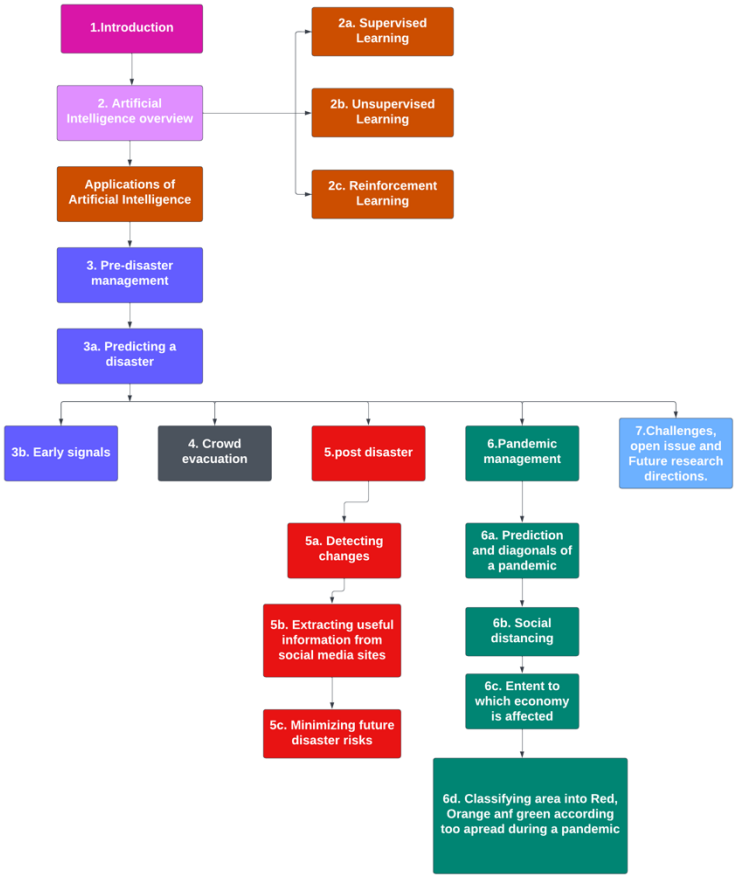
1.Introduction
2. Artificial Intelligence overview
Applications of Artificial Intelligence
3. Pre-disaster management
3a. Predicting a disaster
2a. Supervised Learning
2b. Unsupervised Learning
2c. Reinforcement Learning
3b. Early signals
4. Crowd evacuation
5.post disaster
6.Pandemic management
7.Challenges, open issue and Future research directions.
5a. Detecting changes
5b. Extracting useful information from social media sites
5c. Minimizing future disaster risks
6a. Prediction and diagonals of a pandemic
6b. Social distancing
6c. Entent to which economy is affected
6d. Classifying area into Red, Orange anf green according too apread during a pandemic

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Mobile App ,etc.	NLP ,CNN ,Deep Learning, etc.

2.	Application Logic-1	Logic for a process in the application	Python-flask
3.	Application Logic-2	Logic for a process in the application	IBM Watson Assistant ,IBM Cloud
4.	Application Logic-3	Logic for a process in the application	IBM Watson Assistant
5.	Database	Data Type, Configurations etc.	Machine Learning, Deep Learning
6.	Cloud Database	Database Service on Cloud	IBM Cloudant DB
7.	File Storage	File storage requirements	IBM Watson Studio ,IBM Cloud
8.	External API-1	Purpose of External API used in the application	IBMWeather API etc.
9.	External API-2	Purpose of External API used in the application	IBM Cloud etc.
10.	Convolutional neural network	Purpose of Convolutional neural network	Image Recognition, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	With the goal to facilitate evaluation and mitigation of the risks from natural hazards, the Natural Hazards Engineering Research Infrastructure's Computational Modeling.	Technology of neural network
2.	Scalable Architecture	Disaster damages are measured involves examining the number of fatalities, of injuries, of people affected.	Technology used is AI
3.	Availability	It can be available at the any time and we can access during disasters.	Technology used is CNN