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

Date	18 October 2022
Team ID	PNT2022TMID01874
Project Name	GAS-Leakage Monitoring and Alerting System
Maximum Marks	4 Marks

Technical Architecture:

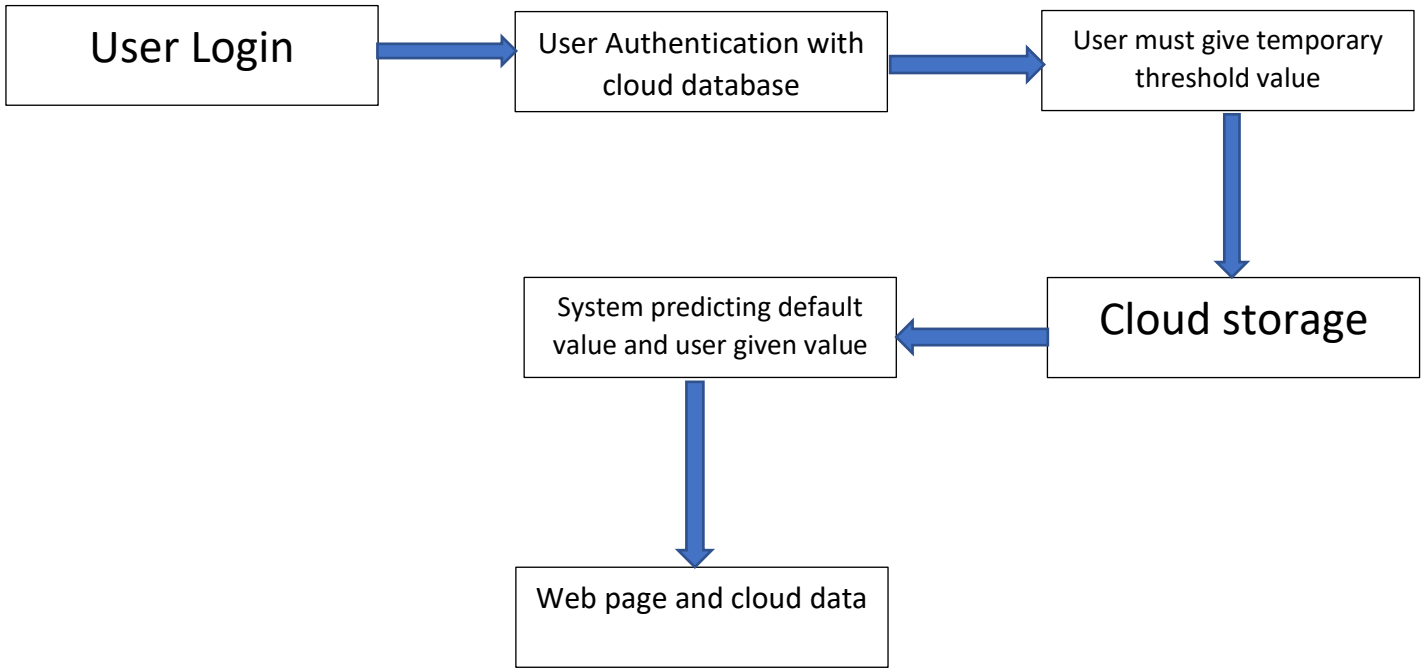

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Web Application	HTML, CSS, JavaScript / Angular Js .
2.	Application Logic-1	Logic for a process in the application	C
3.	Application Logic-2	Logic for a process in the application	IBM Watson Assisant
4.	Database	Data Type, Configurations etc.	MySQL
5.	Cloud Database	Database Service on Cloud	IBM cloud
6.	File Storage	File storage requirements	IBM Block Storage , Local Filesystem
7.	External API-1	Purpose of External API used in the application	IBM Weather API, etc.
8.	Machine Learning Model	Purpose of Machine Learning Model	Infrared Imaging Technology
9.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local,Zigpee

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	C	Tensorflow , stdlib.h
2.	Security Implementations	User data will be stored according to CIA model	End to end encryption(SHA-256)
3.	Scalable Architecture	IBM cloud and firebase both used for better performance in storage and authentication	IBM Watson,Firebase,Mysql
4.	Availability	Handle huge requests,avoid DDOS and XSS attack	Effective coding and restrictive user access based on need
5.	Performance	Handle more then 1000 user to use serverat a time	Flask