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

Date	03 November 2022
Team ID	PNT2022TMID14644
Project Name	Efficient Water Quality Analysis & Prediction using Machine Learning
Maximum Marks	4 Marks

Technical Architecture:

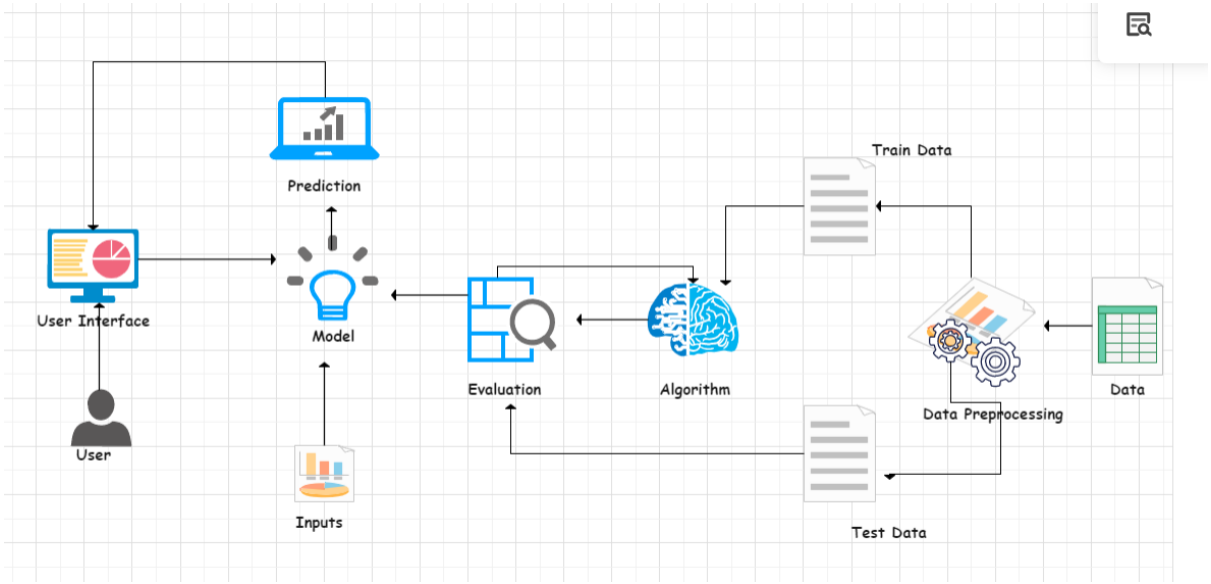

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript,Python FLASk
2.	Application Logic-1	Logic for a process in the application	Python , FLASK
3.	Database	Data Type, Configurations etc.	MySQL
4.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
5.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
6.	Machine Learning Model	Purpose of Machine Learning Model	Random Forest Regression Model.
7.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local,IBM Cloud.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Python FLASK
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	Encryptions
3.	Scalable Architecture	To determine the no.pf inputs per second	Micro Services
4.	Availability	Justify the availability of application	Distributed servers
5.	Performance	Design consideration for the performance of the application	Machine Learning Model