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

Date	16 September 2022
Team ID	PNT2022TMID15632 Efficient Water Quality Analysis and Prediction using Machine Learning
Project Name	Efficient Water Quality Analysis and Prediction using Machine Learning
Maximum Marks	2 Marks

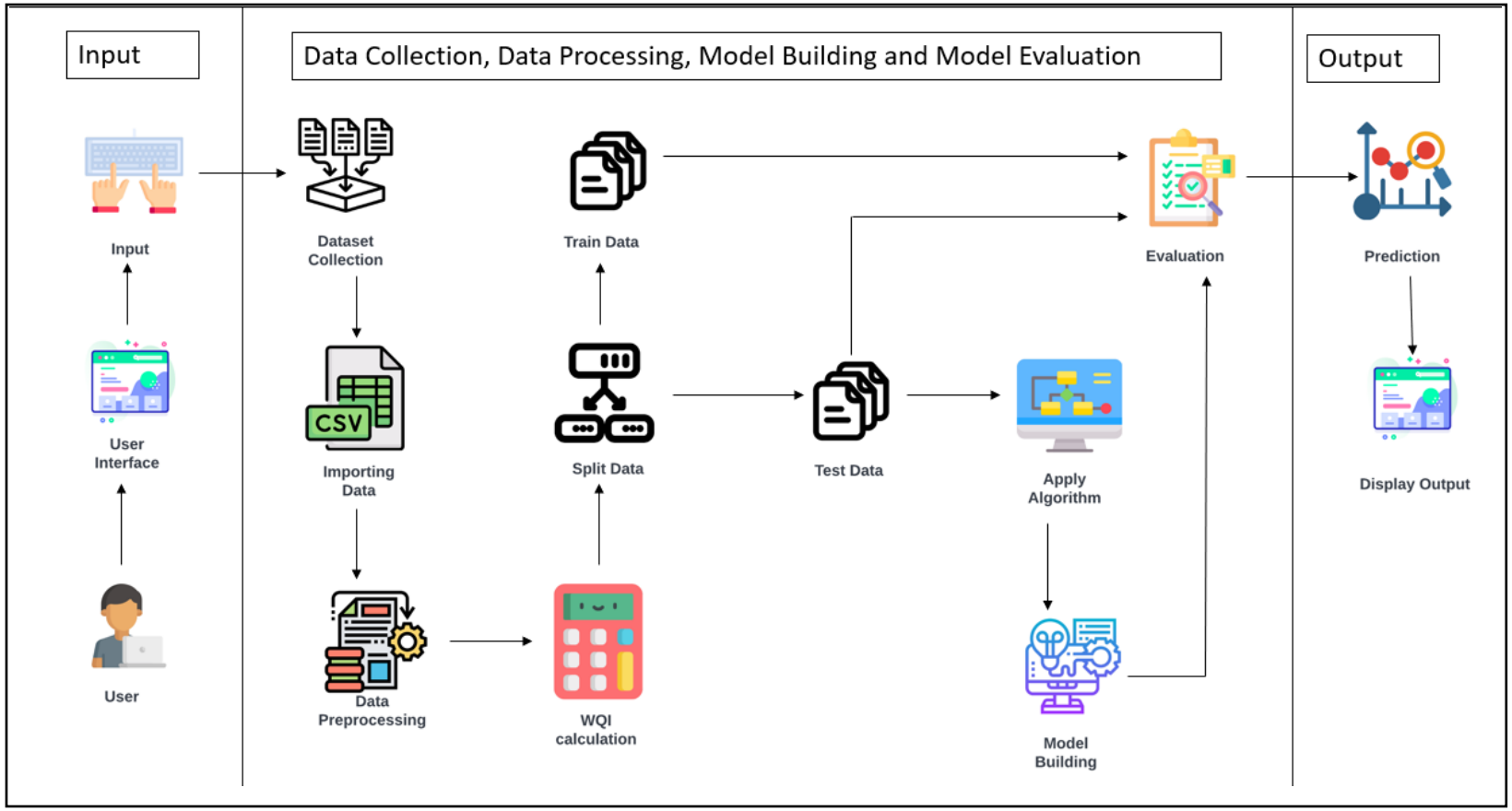

Table-1: Components & Technologies:

S. No	Component	Description	Technology
1.	User Interface	Web UI	HTML, CSS, etc.
2.	Application Logic-1	Logic for a process in the application	Python
3.	Application Logic-2	Logic for a process in the application	IBM Watson STT service
4.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
5.	External API	Purpose of External API used in the application	IBM Cloud API
6.	Machine Learning Model	Purpose of Machine Learning Model	Water Quality Index Model
7.	Infrastructure (Server / Cloud)	Application Deployment on Cloud	Cloud Foundry

Table-2: Application Characteristics:

S. No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Open source-PyCharm, anaconda navigator, flask framework
2.	Security Implementations	Access control implementation list	IAM Controls
3.	Scalable Architecture	Justify the scalability of architecture	PyCharm
4.	Availability	Justify the availability of application	Webpage (HTML, CSS, JavaScript)
5.	Performance	Design consideration for the performance of the application	Content Delivery Network