

## Project Design Phase-II Solution Architecture

Date	03 October 2023
Team ID	NM2023TMID09431
Project Name	AQUATIC INSIGHTS: COGNOS POWERED WATER PORTABILITY ANALYSIS
Maximum Marks	4 Marks

### Solution Architecture:

#### Data Ingestion and Integration:

Raw data from sensors and databases is collected and processed using ETL techniques, integrating it into a cohesive dataset suitable for analysis.

#### Cloud-Based Data Storage and Processing:

Integrated data is stored in scalable cloud storage, enabling efficient real-time or batch processing using platforms like IBM Cloud, Apache Spark or AWS Lambda.

#### Data Warehousing and Structured Storage:

Structured data is stored in a data warehouse, optimizing it for analytical queries, historical analysis, and trend exploration.

#### IBM Cognos Analytics for Advanced Analytics and Visualization:

IBM Cognos Analytics is utilized for advanced analysis, predictive modeling, and creating interactive visualizations and dashboards, enabling meaningful insights.

#### Security, Access Control, and Compliance:

Robust security measures and access controls are implemented to protect data integrity and user privacy, ensuring compliance with regulations such as GDPR and HIPAA. Regular audits and encryption protocols maintain data security standards.

## Solution Architecture Diagram:

