Wipro’s Water Quality Monitoring solution using IBM Cloud Pak for Data
One of the key challenges water utilities face is water quality degradation. Therefore, they need to explore patterns of water quality issues and identify areas with high degree of water quality degradation in a specific time period. While the water quality testing can happen through real time sensors or lab based analysis, Wipro’s Water Quality monitoring solution deployed on IBM Cloud Pak for Data Artificial Intelligence (AI) platform aids in easy consolidation of data from various sources and has exploratory, real-time, computational, and predictive machine learning models to monitor the water quality.

The solution provides a comprehensive view on water quality index and options to drill down to individual chemical concentrations at any given point in time in the water bodies at various sampling stations. The insights enable prediction of water quality concentrations of individual chemicals in future time intervals which can lead to potential water contamination.

**This data & AI platform provides options:**

- to integrate all the data from IoT sensor data, environmental data and historical data in the database
- to enable faster decisions through intelligent machine learning (ML) based algorithmic insights on water quality and corresponding chemical concentration
- end-to-end build support that allows easy collaboration, import, tweaks, deployment, and embedding of models and insights
- driving customer value through cost saving and ensuring compliance for utility providers

**Key services used in the solution include:**

**Data Virtualization:** To integrate water quality testing parameters from various data sources across multiple types and locations into one logical data view. This virtualized view/data lake makes the job of getting value out of your data easy.

**Watson Machine Learning:** Deploy machine learning models.

**Watson Studio:** RStudio and Jupyter Notebooks and analytics engine to run notebooks and experiments that train compute-intensive machine learning models in Watson Studio analytics projects.

**Cognos Analytics:** To create visualizations and share findings through dashboards and reports.

Water utilities can also use Streams to consume IoT real time data and drive real-time business decisions by combining streaming and stored data with analytics.
Wipro – IBM Partnership Overview

The Wipro and IBM Global partnership spans over 20 years with a formal alliance of more than 13 years. As mutually significant and strategic partners, Wipro and IBM co-develop compelling solutions to solve complex client challenges around the world. We continuously innovate in areas such as Cognitive Computing, Analytics, Cloud Application and Infrastructure, Mainframe, Security, Enterprise Asset Management, Commerce, Business Process Management, Enterprise Business Integrations, Internet of Things, and more. Our strong partnership coupled with our deep industry and IBM domain expertise has made Wipro a partner of choice for many global organizations who use IBM technology and solutions as an enabler for their business.

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For more information, please write to us at info@wipro.com