Innovation|Was the idea Innovative?

Innovation: This is the first of its kind solution to be end-to-end integrated. Between online data repository (DataStream) which stores the data in common formats, the data is passed to our dashboard which utilizes a google-maps type experience (arcgis) to present the data geospatially. The colors and sizes of each data point on this map are proportional to the parameter indicated (parameter limits can be found easily in the "legend" area of the software, to the left of the screen). When selecting a point of data (water monitoring site) to observe, users can represent them on the map and compare at a glance between sites on the same water body, same watershed, or different watersheds in the same areas! Users can visualize semi-historical data from each site in a graphical format to observe trends over time and compare them with other local sites! This is easy to do for all types of our market.

Is the content and format of the final submission clear?

We have designed the presentation in a structured and organized manner, ensuring that all information is easily accessible and understandable. The use of headings, visual elements, and a logical flow enhances clarity.

Were the demo materials helpful?

Demo materials provide a visual demonstration of how our water quality dashboard functions and allow users to see its practical application. The combination of visuals and explanations aids in understanding the features and capabilities of our solution. By walking viewers through the process of visualizing graphs, identifying sites on a map and walking through a water report card, the demo materials thoroughly explain the workings of WATQC.

Does the solution work as intended to address the problem statement?

Yes, our solution effectively addresses the problem statement. It provides a user-friendly and comprehensive platform for monitoring and analyzing water quality. The integration of data sources, geospatial representation, and comparative analysis features align with the intended purpose, enabling users to make informed decisions about water bodies. It achieves these objectives for a wide range of users, from technical to non-technical persons.

How impressive is the range and depth of the solution's technical features?

The range and depth of our solution's technical features are what we consider to impressive in the 2 weeks allotted for this hackathon! We have integrated data from an online repository, utilized geospatial mapping, and allowed for graphical visualization of data trends. These technical features demonstrate the depth and versatility of our solution in addressing various aspects of water quality monitoring. The customizability of the data visualization ensures that users will not be overwhelmed with excessive information and are able to extract appropriate information with ease.

Does the solution effectively leverage scientific concepts and/or literature?

Yes, our solution effectively leverages scientific concepts and literature by incorporating key parameters such as pH, temperature, salinity, ammonia, phosphate, and E. coli burden into the water quality analysis. These parameters are derived from scientific principles and guidelines including but not limited to the CCME, ensuring the solution's scientific accuracy.

Does the solution clearly communicate its scientific reasoning to the user?

The solution provides clear communication of its scientific reasoning to the user. It explains the significance of each parameter, how they influence water quality, and the ecological implications. Users can easily understand the scientific aspects of the data, enhancing transparency and knowledge sharing.

Did the team identify the needs of their target user?

We recognized the diverse user base, from citizen scientists to environmental professionals. Our solution accommodates these needs by providing user-friendly access to water quality data and insights, making it inclusive for a wide range of users.

How well does the solution accommodate those needs?

The solution accommodates user needs effectively by offering a user-friendly interface, comparative analysis tools, graphical representation as well as plain English explanations of the data. It ensures that users with varying levels of technical expertise can access and utilize the data, promoting inclusivity and usability.

Does the solution provide a clear, unambiguous, and intuitive user experience?

Yes the design is user-friendly and resembles popular mapping software, making it easy for users to navigate and interpret the data. The clear presentation of data and legend area further enhances the user experience.