

## ***ABSTRACT***

Water quality is one of the important factors that must be considered either by consumers or water distributors. For consumers, of course, air quality must be good because it is their primary need to be used and consumed every day. Water distributors such as regional business PDAMs that are engaged in distributing air, of course, need to pay attention to water quality and water discharge to maintain comfort and provide comfort for consumers.

To improve water quality and water flow, a tool was made to detect various compositions and factors that affect water such as PH levels, temperature, turbidity, water discharge, and others. *Monitoring* or *monitoring* on these tools has required A software that can be reached by users, a dashboard is made containing information obtained from tools that have been implemented to determine air quality and airflow, this dashboard application is made for a smartphone platform based on Firebase Realtime A database containing this information.

This application was made so that user or quality *monitoring* is made easier and more flexible for users. The information received is also information that occurs in real-time, so the information obtained is in the form of actual data. Flexibility where this application can monitor from anywhere without the need for monitors to come to the location, with this application it is very easy to access information on water quality and water discharge anywhere and anytime.

The application that has been formed and implemented in the field along with the tests that have been carried out, it can be concluded that this application has fulfilled 22/22 of the system requirements requested by the PDAM of Madiun District which aims for field surveys.

**Kata Kunci:** *Firebase, Monitoring, Realtime, Water Quality, Water Debit.*