# **WATER BANK**

**Abstract** 

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# **WATER BANK**

The Water Bank Website is a comprehensive platform designed to address water-related challenges by providing a digital ecosystem that facilitates efficient water supply management, water resource cleaning initiatives, product sale and user awareness. The concept of a water bank holds significant relevance in addressing a variety of water-related challenges faced by communities and regions around the world. Its relevance is underscored by the increasing need for sustainable water resource management and conservation.

Water resource cleaning refers to the process of removing pollutants, contaminants, and debris from water bodies such as wells, canals, rivers, lakes, ponds, and oceans. This practice is crucial for maintaining the quality of water sources, protecting ecosystems, ensuring safe drinking water, and preserving aquatic life. Water resource cleaning involves various methods and techniques aimed at reducing pollution and restoring the health of water bodies. The Water Bank features a marketplace where users can browse and purchase state-of-the-art water purifying equipment, filters, and related products. Personalized recommendations based on user preferences enhance the shopping experience.

The Water Bank offers a diverse range of educational resources, including webinars, workshops, and interactive modules. These resources empower users with knowledge about water conservation, sustainable practices, and pollution prevention. This platform employs cutting-edge sensor technology and real-time data analysis to monitor pollution levels in water bodies. Users can access up-to-date pollution data, enabling informed decisions and targeted cleanup initiatives. We can Utilize machine learning algorithms to predict water demand based on historical data, weather conditions, and user patterns. This can help optimize water delivery schedules and ensure that adequate supply is available. Additionally, we can use predictive analytics to anticipate potential supply disruptions and take proactive measures.

#### Features:

- ♦ Water supply management
- ♦ Water resource cleaning
- ♦ Awareness
- ♦ Product store
- ♦ Community Engagement

#### Modules

- ♦ Admin
- ♦ User
- ♦ Worker

# **Admin**

- ♦ User management
- ♦ Manage content for awareness
- ♦ Control workers status
- ♦ Access location of work
- ♦ Assign work locations
- ♦ Schedule time slot for workers
- ♦ Pollution monitoring
- ♦ Predict water demand
- ♦ Product store management
- ♦ Confirm order
- ♦ Quality check
- ♦ Delivery management
- ♦ View feedback
- ♦ Remainder and notification
- ♦ Manage Payment

#### User

- ♦ Create profile
- ♦ Water supply request
- ♦ Access to awareness resources
- ♦ Water resource cleaning request
- ♦ Tracking of delivery
- ♦ Interaction between user and worker
- ♦ Confirm delivery
- ♦ Group chat
- ♦ feedback

# Worker

- ♦ Create and update worker profile
- ♦ Water supply management
- ♦ Resource cleaning
- ♦ Event coordination
- ♦ Product delivery
- ♦ Location tracking

- ♦ Confirm delivery
- ♦ User communication

# **Benefits**

- ♦ Reliable water supply
- ♦ Water Quality improvement
- ♦ Waterborne disease prevention
- ♦ Enhanced awareness
- ♦ Positive Environmental impact

# Mini project

- ♦ User management
- ♦ Manage content for awareness
- ♦ Control workers status
- ♦ Access location of work
- ♦ Assign work locations
- ♦ Confirm order
- ♦ Manage Payment
- ♦ Quality check
- ♦ Feedback
- ♦ Remainder and notification
- ♦ Create user profile
- ♦ Water supply request
- ♦ Access to awareness resourses
- ♦ Water resource cleaning request
- ♦ Confirm delivery
- ♦ Create and update worker profile
- ♦ Water supply management
- ♦ Resource cleaning
- ♦ Event coordination

# Main project

- ♦ Pollution monitoring
- ♦ Predict water demand
- ♦ Schedule time slot for workers

♦ Product store
♦ Tracking of delivery
♦ Delivery management
♦ Interaction between user and worker
Technologies
♦ Machine learning
♦ Artificial intelligence
♦ Chatbots
Backend: Python
Frontend: HTML/CSS