National Reservoir Level and Capacity Monitoring System

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Introduction

What is reservoir?

Water is Precious

- Water is a prime natural resource and a basic human need
- Water resources management needs to be governed by national perspectives
- A reservoir is a natural lake or a man-made storage for water
- NRLCMS is a network centric segment of e-Governance in water resources.

Hashim Committee Report (1999)

Harness

Storage of water via various sources

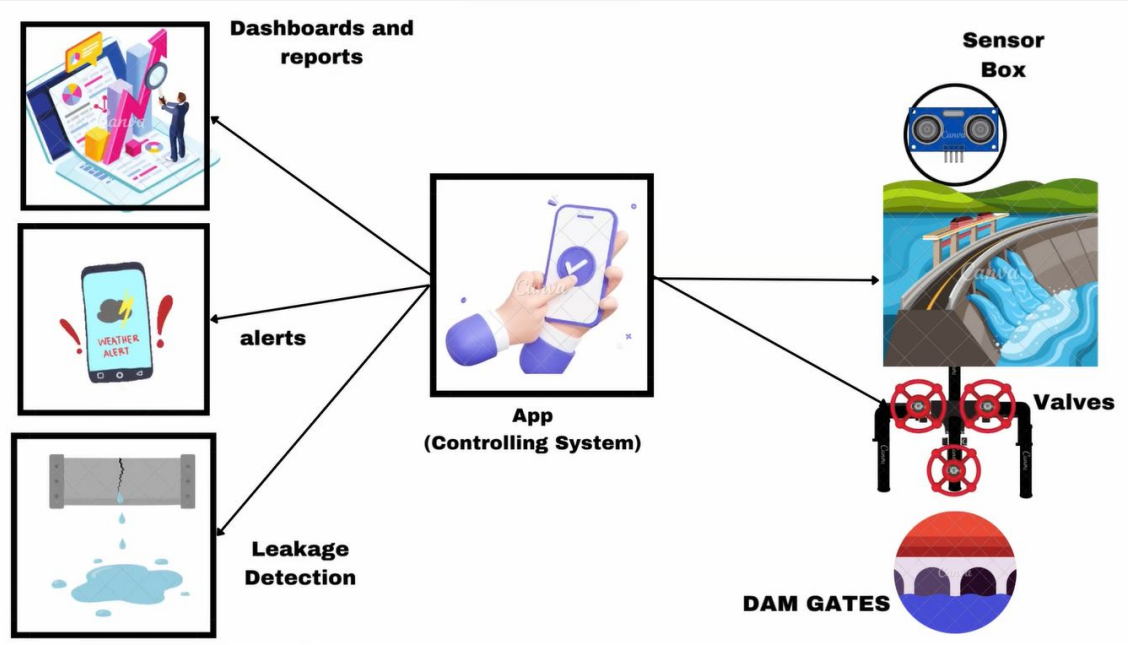
Optimize

Improving water-use to minimize waste

Balance

Demand and supply management

Architecture



Any significant deviation from the norms could attract attention of the planners and administrators

Application of Monitoring System

Water Utilization

Preventing over allocation

Crop Production

Sufficient water for agriculture

Hydro Power Gen

Maintain water flow through power plants

Disaster Monitoring

Early warning for potential floods

CAPACITY MONITORING SYSTEM

Privileges types:

Detailed breakdown of privileges for each user category:

- **Super user (CWC user)**: Access to all reservoirs nationwide, administrative control, creation of users and reservoirs.
- **State user**: Access to reservoirs within their state, creation and modification of users at the reservoir level.
- **Reservoir Level User**: Limited to specific reservoir, rights for data entry, querying, and report generation.

NIC SUPPORT FOR CAPACITY MONITORING

1. Since 1988, the National Information Centre (NIC) has collaborated with the Central Water Commission (CWC) to monitor 70 reservoirs.
2. These reservoirs collectively hold a total storage capacity of 135 Thousand Million Cubic Meters (TMCM), constituting 78% of the nation's available storage.
3. The monitoring activities extend to more than 14 states and cover 12 major river in India.

Impacts and Benefits of CMS

1. Capacity monitoring system contributes to proactive decision-making, ensuring efficient allocation of resources and resilience to water-related challenges.
2. Capacity monitoring system ensures real-time assessment of water utilization, crop production, and hydropower generation.
3. Capacity monitoring system generates customized reports and graphical representations for informed decision-making.

State/National Model

Overview

Utilization of modern technology stack to develop the platform.

Tech Stack

- Java
- SQL Server
- Web application

Features

- Distributed administrative and management control for efficient operation.
- of information from various states for centralized access.
- Publication of collected data on the Internet with appropriate permissions.

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Thanks!

Do you have any questions?