Overview

waterBOARD is a Windows-based application written in Delphi that allows users to track the capacity of the 6 major dams supplying water to Cape Town. It provides 10 years of historical data on the dams and fetches the most recent data from the City of Cape Town's website every time the application runs. Additionally, waterBOARD enables users to monitor and manage their personal water usage by inputting their monthly readings and setting usage goals to promote water conservation.

Features

- Dam Capacity Tracking: View the capacity levels of the 6 major dams with up-to-date data fetched from the City of Cape Town's website and over 10 years of historical data.

- Personal Water Usage Tracking: Input your monthly water usage readings, either directly in the application or by uploading a text file with multiple months' readings (format: '##,## - yyyy/mm/dd').

- Usage Goal Setting: Set monthly water usage goals to help monitor and reduce water consumption.

- User Authentication: Securely sign in with a username and password to access personalised water usage data.

- Usage Visualisation: The app provides clear and easy-to-understand visualisations of dam capacity and your personal water usage, helping you comprehend the data quickly.

System Requirements

- Operating System: Windows

- Hardware: Any regular computer with a stable internet connection

- For the waterBOARD application to function correctly, an essential component known as the TeeChart Standard Package must be installed in your Delphi environment. This package is crucial because it powers the 'Usage Visualisation' feature of the application, which provides clear and easy-to-understand visualisations of dam capacity and your personal water usage.

  Please follow the instructions below to install the TeeChart Standard Package To ensure smooth operation before using waterBOARD:
  1. Navigate to the following:
     -Tools → Manage Platforms → Additional Options → TeeChart Standard
  2. Select TeeChart Standard and press Apply.

Usage

1. Launch the waterBOARD application on your Windows computer.

2. Home Page:
   - From the home page you can:
     a. View Dam List/Map List
     b. Sign Up
     c. Login
3. If you already have an account, sign in with your username and password. If not, create a new account to access personalised features.

4. Login: Enter your username and password if you have an account. For demonstration purposes an account has been set up.
   - Username: j_depp
   - Password: 1234
   After logging in you can click the 'Stats' button to view your personal data and add new water-meter readings and set new monthly targets.

5. Sign Up:
   - Enter all the information required in order to create an account. Before your account is created you will be asked to set your first monthly water usage target. After signing up you can click the 'Stats' button to start entering your personal data and add new water-meter readings and set new monthly targets.

6. Water Usage Tracking:
   - To input your water usage, click on the "Stats" button. You can either manually enter your monthly readings or upload a text file with multiple months' readings (format: '##,## - yyyy/mm/dd').

7. Set Usage Goals:
   - Click on the "Set new new target" button to set monthly water usage goals for better conservation.

Known Issues

- The loading screen may occasionally remain displayed when fetching the most recent data. To update the screen, move the mouse through the interface, and the program will function as intended.

Feedback and Support

- For any feedback, issues, or support-related inquiries, please email tevans@westerford.co.za

Note

- waterBOARD does not provide alerts or notifications for low dam capacities or usage goal alerts.

- The program does not export past data for external analysis or reporting purposes.