**Product Support Document**

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**Team: TP31**

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# **1.0 Introduction**

The WaterWhiz Support Document provides comprehensive information necessary for the ongoing maintenance, troubleshooting, and optimization of the WaterWhiz platform. It is intended for support teams, developers, and administrators responsible for ensuring the seamless operation of the system.

This document outlines key aspects such as hosting details, server configurations, backup protocols, and a technical overview of the platform's architecture. Additionally, it includes best practices for managing the underlying infrastructure, security considerations, and data recovery processes.

# **2.0 Support**

The platform utilises three primary servers:

1. **AWS Server** – Hosts all front-end pages and is responsible for the core functionality of the user interface.
2. **Hong Kong Servers** – Two servers are used, one dedicated to the AI prediction model and another for the AI interface. These servers are critical for running the complex computations required for real-time stormwater predictions.

The **MySQL Database** is hosted separately on AWS, ensuring scalability and security for the platform's data storage needs. It is connected to the web server using a secure backend framework, which in this case is Spring (Java), facilitating seamless interactions between the database and front-end applications.

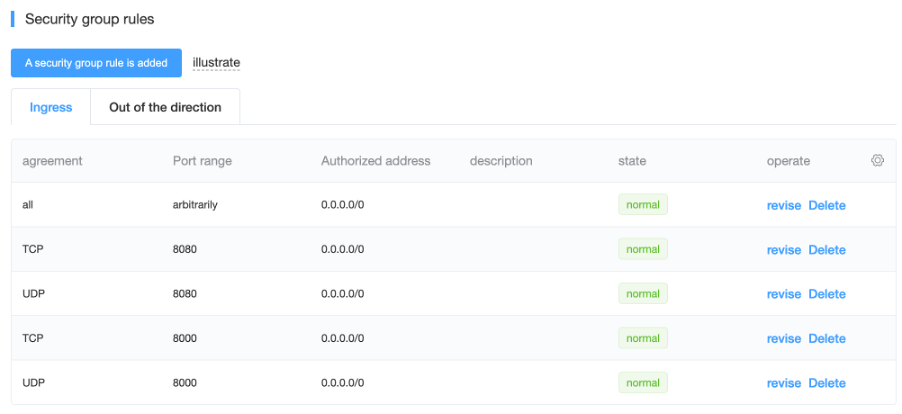
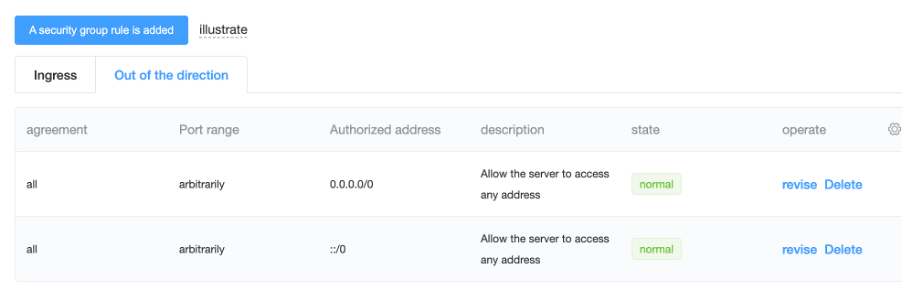
## **2.1 Host Information**

| **Attribute** | **Details** |
| --- | --- |
| Server Locations | AWS Server (Main Frontend)  Hong Kong Server (AI Prediction Model)  Hong Kong Server (AI Interface) |
| AWS Server Instance | Free Tier - 1 Core, 1 GB RAM, 2M Bandwidth |
| Hong Kong Server Specs | 1 Core, 1 GB RAM, 5M Bandwidth |
| Hong Kong Server Specs | 1 Core, 1 GB RAM, 5M Bandwidth |
| Operating Systems | AWS: Amazon Linux  Hong Kong: CentOS 8 Stream 64-bit |
| Public IPv4 Addresses | AWS Server: 3.26.47.55  Hong Kong Server: 38.181.47.50 |
| Domain | [https://waterwhiz.site/](https://iteration1.waterwhiz.site/) |
| Password | IGfW2qql |
| Database Host | AWS Cloud Database (MySQL) |
| Database Endpoint | database-2.cryyycgmu30u.ca-central-1.rds.amazonaws.com |
| Database Port | 3306 |
| Database Credential | Username: admin  Password: Scq12345678 |

## **2.2 Port Details**

1. **HTTP (Port 80)**: This port is used for unencrypted web traffic. While it's less secure, it's important for non-sensitive data transfer and serves as the default for web applications.
2. **HTTPS (Port 443)**: This port is used for secure web traffic, ensuring encrypted communication between the client and the server. It’s crucial for protecting sensitive information and maintaining user privacy.
3. **SSH (Port 22)**: SSH (Secure Shell) is used for secure remote administration of servers. It provides a secure channel for accessing the server's command line interface and is essential for managing server configurations and updates.

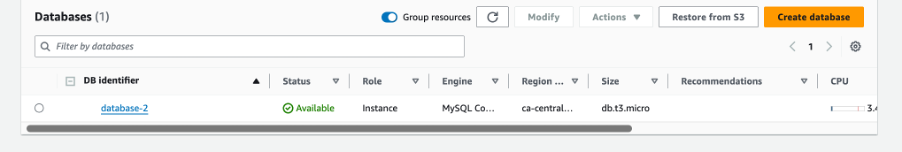
Please see below for images reflecting the ports used for the project:

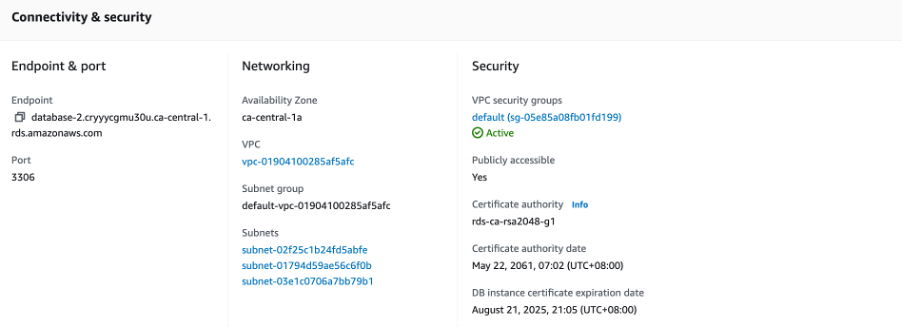
## **2.3 Database Details**

The database for the WaterWhiz project is hosted on AWS with the following configuration:

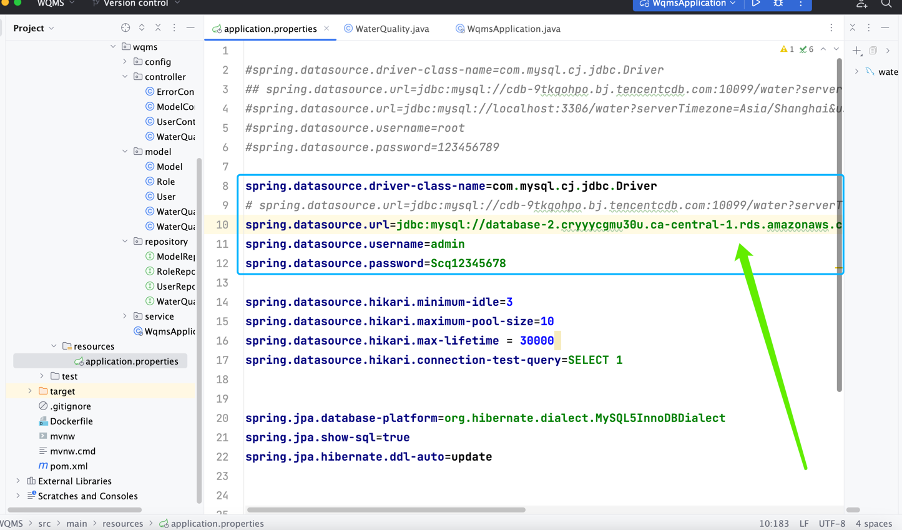
* **Endpoint**: database-2.cryyycgmu30u.ca-central-1.rds.amazonaws.com



* **Port**: 3306
* **Username**: admin
* **Password**: Scq12345678
* **Total Storage**: 20GB



For the backend integration, we utilise the Spring framework (Java) to establish a connection to the database, ensuring seamless data management and retrieval.



# **3.0 Backup**

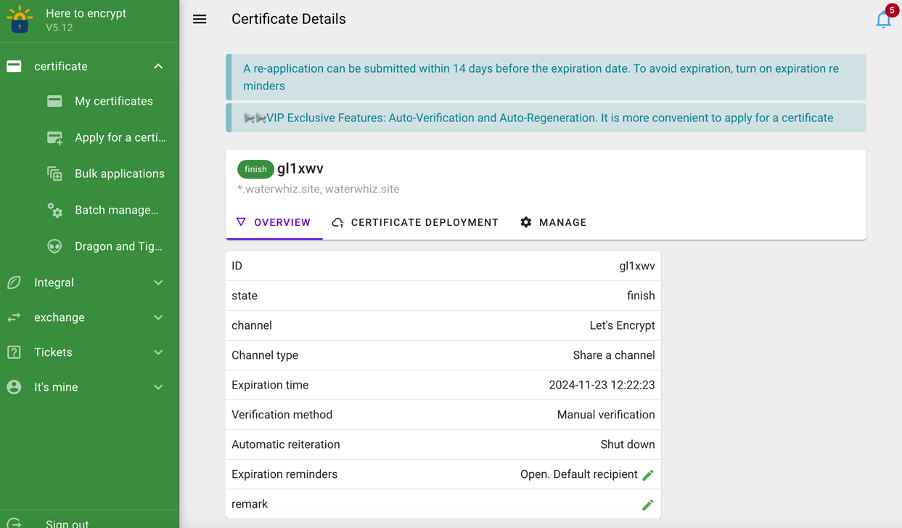
In any software development project, maintaining a reliable backup of the codebase is crucial for ensuring data integrity and facilitating collaboration among team members. For the WaterWhiz project, we utilise Git as our version control system. This allows us to track changes, manage code versions, and collaborate efficiently, reducing the risk of data loss and enabling smooth rollbacks if necessary. The Git repository serves as a central hub for all project code, documentation, and configuration files, providing a robust framework for ongoing development and maintenance. Below are the details for accessing the Git repository.

**Frontend:** <https://github.com/jzha0455/TP31_MainProject_frontend.git>

**Backend:**

https://github.com/jzha0455/TP31\_MainProject\_backend.git

# **4.0 Security**

For the WaterWhiz project, we have acquired our SSL certificate through Let's Encrypt, a trusted Certificate Authority that provides free SSL certificates, making it accessible for all websites. The use of HTTPS (Hypertext Transfer Protocol Secure) not only encrypts data in transit but also enhances user trust by providing visual cues in the browser, such as a padlock icon.

To create or change the domain, visit [here](https://letsencrypt.osfipin.com/user-0408/order/detail/gl1xwv).