1. SonarQube Server Setup

Performed on an Ubuntu machine:

1. Create a new user and download SonarQube:
   - `sudo adduser sonar`
   - `sudo wget https://binaries.sonarsource.com/Distribution/sonarqube/sonarqube-10.4.1.88267.zip`
   - `sudo unzip sonarqube-10.4.1.88267.zip`
   - `sudo mv sonarqube-10.4.1.88267 sonarqube`

2. Change ownership and install Java:
   - `sudo chown -R ubuntu:ubuntu sonarqube`
   - `sudo apt install openjdk-17-jre-headless -y`

3. Start SonarQube:
   - Navigate to `sonarqube/bin/linux-x86-64/`
   - `./sonar.sh start`
   - Check status using `./sonar.sh status`

SonarQube is now accessible via `http://54.161.45.153:9000`.

2. JavaScript Project Setup and Sonar Analysis

Performed on a separate Ubuntu project server:

1. Environment setup:

   - Install Node.js and npm if not already installed.

   - Clone project: `git clone https://github.com/daniyel7devops/angularjs-project-example.git`

2. Install project dependencies and build:

   - Navigate to the project directory: `cd angularjs-project-example`

   - Run `npm install` and `npm run build`

   - If required, add: `export NODE_OPTIONS=--openssl-legacy-provider`

3. Install SonarScanner:

   - `wget https://binaries.sonarsource.com/Distribution/sonar-scanner-cli/sonar-scanner-cli-5.0.1.3006-linux.zip`

   - `unzip` and move to `/opt/sonar-scanner`

   - Add to PATH: `export PATH=$PATH:/opt/sonar-scanner/bin`

4. Run SonarQube analysis:

   ```bash
   sonar-scanner \
     -Dsonar.projectKey=my-js-app \
     -Dsonar.sources=. \
     -Dsonar.host.url=http://54.161.45.153:9000 \
     -Dsonar.login=sqa_4c4e8aefbf6b6fd4ba320b6d3bc4fbb1409ae8c8
   ```

3. Analysis Result Output (SonarQube Dashboard)

Below is the screenshot of the SonarQube dashboard after a successful analysis of the JavaScript project. The project named 'my-js-app' passed all quality gates with metrics indicating no security issues, good reliability, and maintainability.