Python Project Analysis with SonarQube on Ubuntu

1. SonarQube Installation on Ubuntu

- Updated package lists: sudo apt update
- Installed PostgreSQL: sudo apt install postgresql postgresql-contrib -y
- Added Sonar user: sudo adduser --system --no-create-home --group --disabled-login sonar
- Downloaded SonarQube 10.4.1: wget and unzip
- Moved and changed permissions for SonarQube directory
- Installed Java: sudo apt install openjdk-17-jdk -y
- Started SonarQube: ./sonar.sh start from bin/linux-x86-64

2. Python Project Setup

- Installed dependencies: pip install -r requirements.txt
- Installed testing tools: pytest and coverage
- Created virtual environment and activated it
- Cloned and navigated to Python project (example-voting-app)
- Added tests and ran coverage: coverage run -m pytest
- Exported coverage report: coverage xml

3. SonarQube Project Configuration

sonar-project.properties:

sonar.projectKey=vote-app

sonar.projectName=Vote App

sonar.projectVersion=1.0

sonar.sources=.

sonar.language=py

sonar.python.coverage.reportPaths=coverage.xml

sonar.host.url=http://<SonarQube-IP>:9000

sonar.login=<token>

4. Sonar Scanner Setup

- Downloaded and unzipped sonar-scanner CLI

- Added to PATH and verified installation: sonar-scanner -v

- Ran analysis from Python project directory: sonar-scanner

5. SonarQube Analysis Output

- Project analyzed: Vote App

- Total lines of code: 236

- Reliability: C

- Coverage: 5.6%

- Status: Passed

Not secure 3.236.42.201:9000/projects

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Quality Gate

Passed 1

Failed 0

Reliability

A 0

B 0

C 1

D 0

Create Project

Search for projects... Perspective Overall Status Sort by Name 1 project(s)

Vote App PUBLIC Passed

Last analysis: 2 minutes ago • 236 Lines of Code • CSS, HTML, ...

A 0 Security | C 2 Reliability | A 0 Maintainability | E 0.0% Hotspots Reviewed | 5.6% Coverage | 0.0% Duplications

1 of 1 shown

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Embedded database should be used for