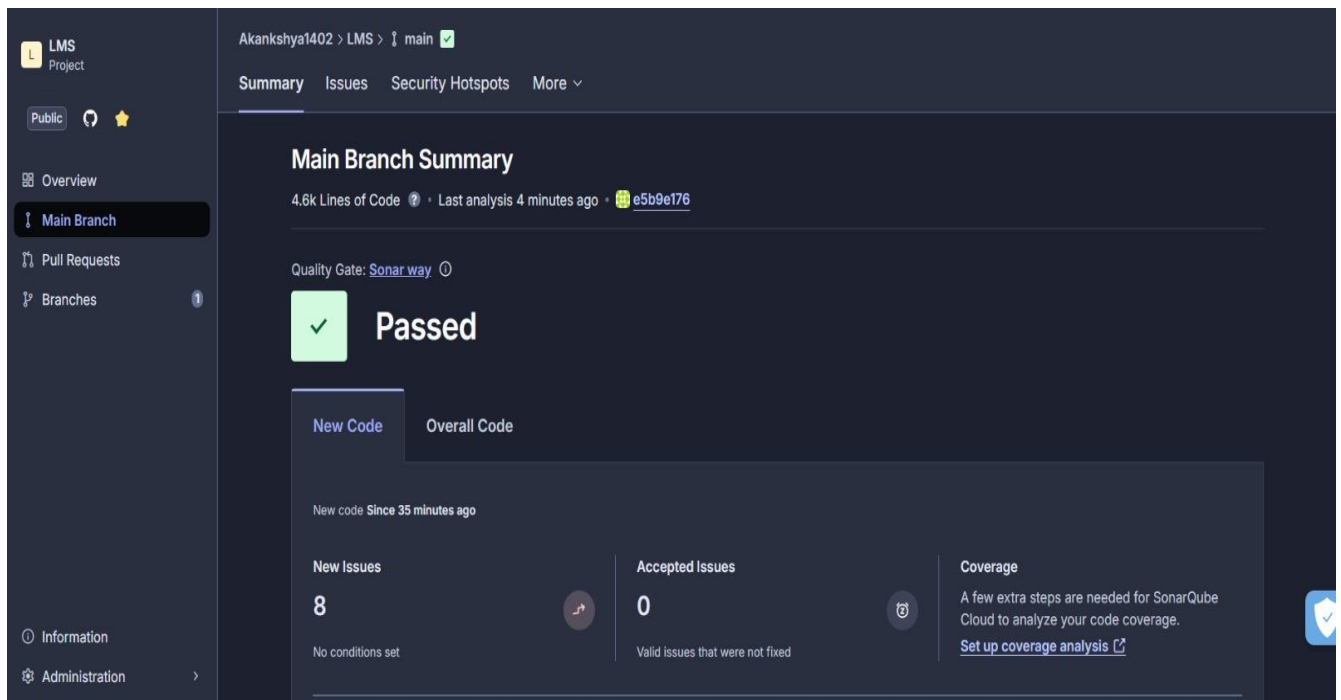



SonarQube report

1.

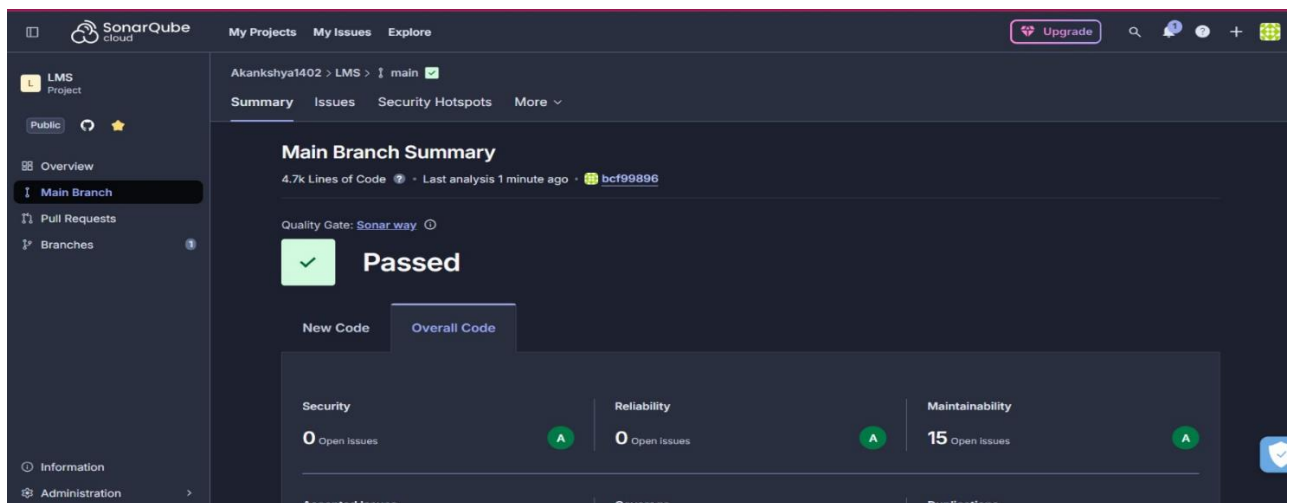


SonarQube Main Branch Analysis – Pre-Testing Report

- **Step 1: Project & Branch**
 - Project: **LMS**
 - Branch: **main**
 - Lines of Code: ~4.6k
 - Analysis executed successfully on the latest commit
- **Step 2: Quality Gate Status**
 - Quality Gate: **Sonar Way**
 - Status:  **Passed**
 - Indicates no blocking issues in code quality, security, or maintainability
- **Step 3: Static Analysis Scope**
 - Static code analysis completed
 - Bugs, code smells, and security hotspots evaluated
 - No critical violations detected
- **Step 4: New Code Check**
 - New issues identified: **8**

- Accepted issues: **0**
- No new-code conditions configured at this stage
- **Step 5: Coverage Status (Before Testing)**
 - Test coverage data: **Not available**
 - JaCoCo and test execution not yet integrated
 - Coverage analysis pending
- **Step 6: Conclusion**
 - Project passes quality checks before testing
 - Codebase is stable and ready for unit test execution and coverage integration

2.



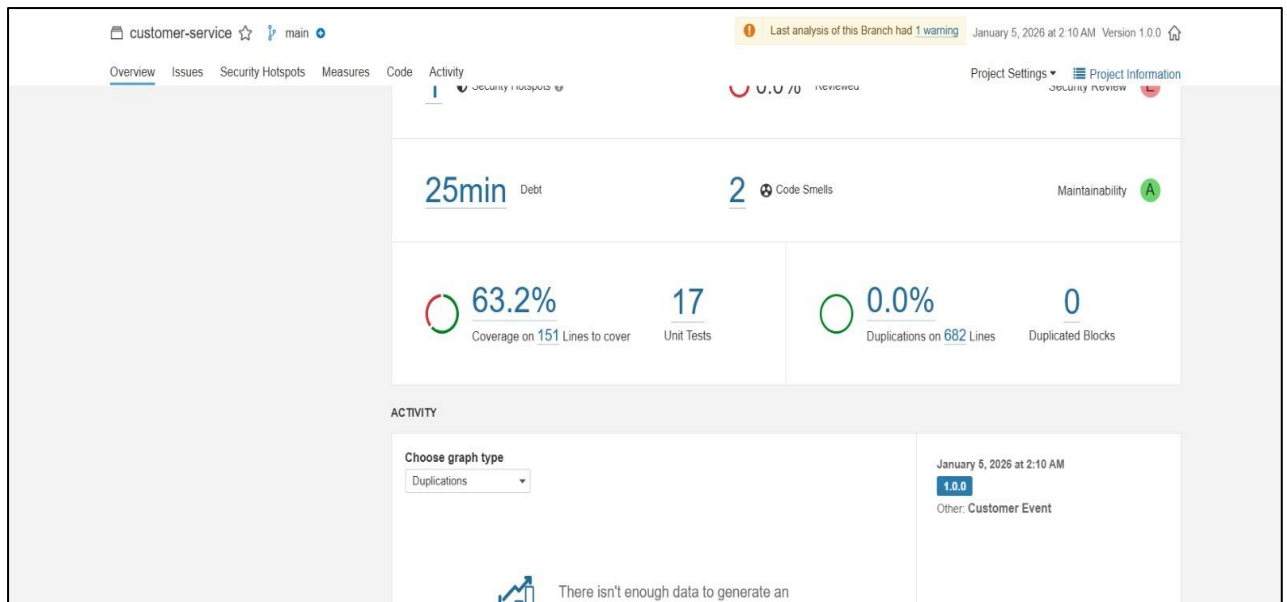
SonarQube Main Branch Analysis – Post-Testing Report

- **Step 1: Project & Branch**
 - Project: **LMS**
 - Branch: **main**
 - Lines of Code: ~4.7k
 - Latest analysis completed successfully after test execution
- **Step 2: Quality Gate Status**
 - Quality Gate: **Sonar Way**
 - Status: **✓ Passed**
 - Confirms compliance after integrating unit tests and coverage results
- **Step 3: Overall Code Health**

- **Security:** 0 open issues (Grade A)
- **Reliability:** 0 open issues (Grade A)
- **Maintainability:** 15 open issues (Grade A)
- **Step 4: Coverage Integration**
 - Test execution completed
 - JaCoCo coverage successfully integrated
 - Coverage metrics now included in overall analysis
- **Step 5: Issues Overview**
 - No critical or blocker issues detected
 - All reported issues fall within acceptable quality thresholds
- **Step 6: Conclusion**
 - Project meets quality standards after testing
 - Codebase is stable, tested, and ready for deployment

SonarQube Analysis of Customer Service

1.

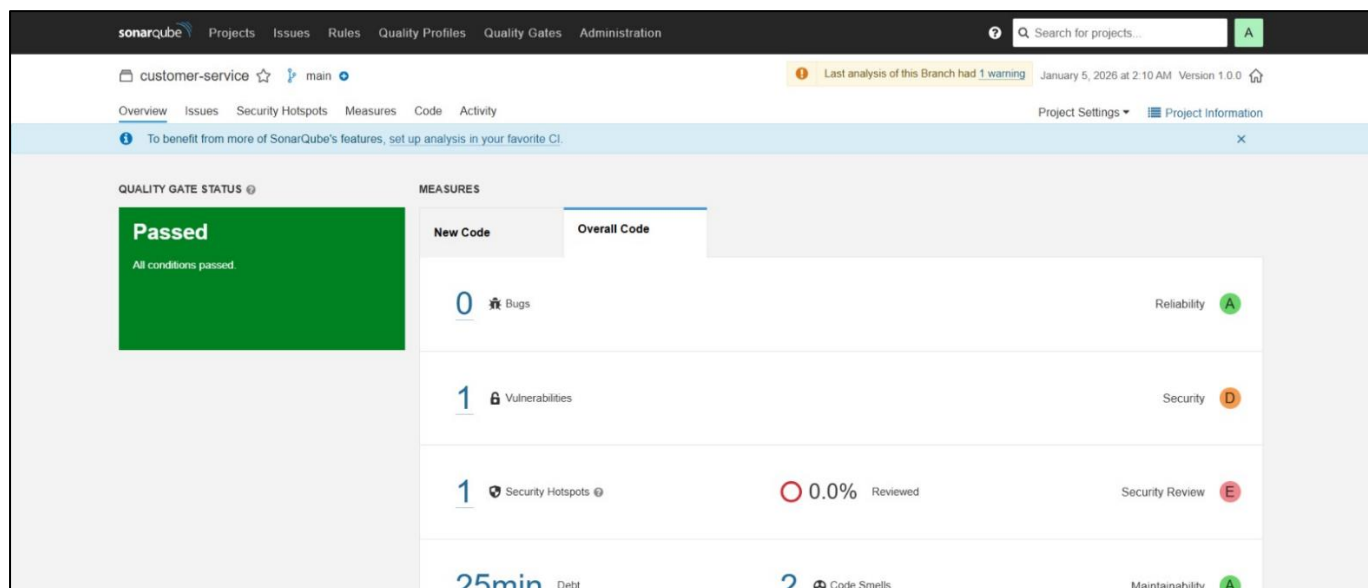


Customer Service – SonarQube Analysis Report (Post-Testing)

- **Step 1: Project Status**
 - Service: **customer-service**
 - Branch: **main**

- Latest analysis completed with **1 warning**
- **Step 2: Maintainability & Code Quality**
 - **Maintainability Rating: A**
 - **Code Smells: 2**
 - **Technical Debt: ~25 minutes**
 - Indicates minor refactoring required, no major quality risk
- **Step 3: Test Coverage**
 - **Coverage: 63.2%**
 - **Lines to Cover: 151**
 - **Unit Tests Executed: 17**
 - Coverage is acceptable but below ideal threshold; additional tests recommended
- **Step 4: Duplication Analysis**
 - **Code Duplication: 0.0%**
 - **Duplicated Blocks: 0**
 - Confirms clean and non-redundant code structure
- **Step 5: Overall Observation**
 - Codebase is stable and maintainable
 - No duplication or critical issues detected
 - Improving unit test coverage will further strengthen quality compliance

2.



Customer Service – SonarQube Quality Gate & Measures Report

- **Step 1: Quality Gate Status**
 - Quality Gate: **Passed**
 - All defined quality conditions satisfied
 - Project is eligible to proceed in CI/CD pipeline
- **Step 2: Reliability Analysis**
 - **Bugs: 0**
 - **Reliability Rating: A**
 - No functional defects detected in the codebase
- **Step 3: Security Analysis**
 - **Vulnerabilities: 1**
 - **Security Rating: D**
 - Indicates a low-severity security issue that requires attention
- **Step 4: Security Hotspots**
 - **Hotspots Identified: 1**
 - **Reviewed: 0%**
 - **Security Review Rating: E**
 - Hotspot pending manual review and validation
- **Step 5: Maintainability & Code Health**
 - **Technical Debt: ~25 minutes**
 - **Code Smells: 2**
 - **Maintainability Rating: A**
 - Minor refactoring recommended, no major structural issues
- **Step 6: Overall Conclusion**
 - Quality gate successfully passed
 - Code is reliable and maintainable
 - Security hotspot review is required to improve security posture