

Software Verification

<1st Testing –Static Analysis Report>

T1

201411276 서수빈

201411291 이금락

201411292 이민환

201411313 장진서

2019.6.7

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A. Sonarqube

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- i. Overall
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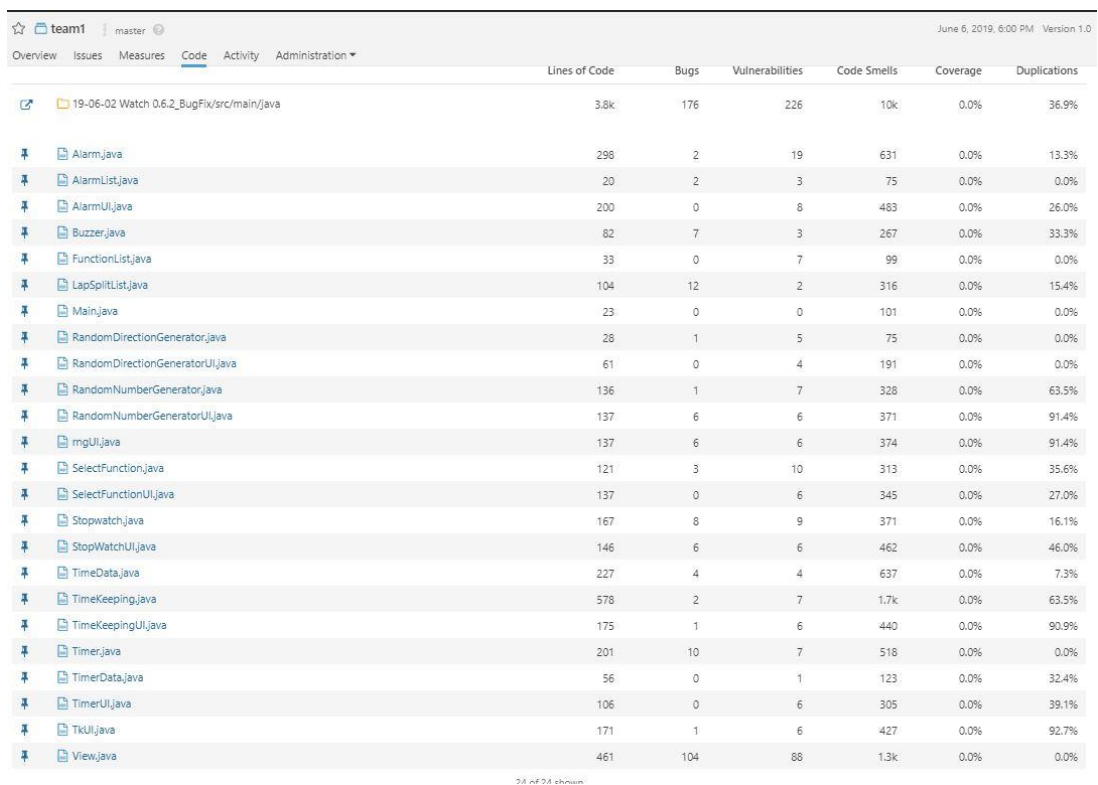
[SMA T1]

1. SonarQube

A. URL

- i. <http://ec2-3-14-135-144.us-east-2.compute.amazonaws.com:9000/dashboard?id=team1>

B. Code



The screenshot shows the SonarQube Code Quality Dashboard for project 'team1'. The dashboard displays a table of code quality metrics for various files. The columns are: Lines of Code, Bugs, Vulnerabilities, Code Smells, Coverage, and Duplications. The table lists 20 files, including Alarm.java, AlarmList.java, AlarmUi.java, Buzzer.java, FunctionList.java, LapSplitList.java, Main.java, RandomDirectionGenerator.java, RandomDirectionGeneratorUi.java, RandomNumberGenerator.java, RandomNumberGeneratorUi.java, rngUi.java, SelectFunction.java, SelectFunctionUi.java, Stopwatch.java, StopwatchUi.java, TimeData.java, TimeKeeping.java, TimeKeepingUi.java, Timer.java, TimerData.java, TimerUi.java, TkUi.java, and View.java. The total Lines of Code is 3.8k, Bugs are 176, Vulnerabilities are 226, Code Smells are 10k, Coverage is 0.0%, and Duplications are 36.9%.

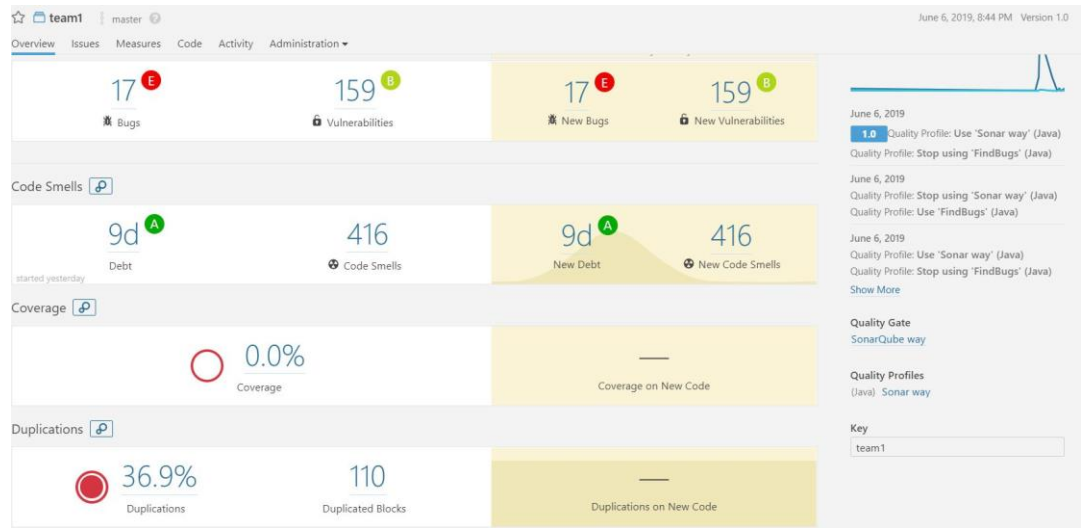
	Lines of Code	Bugs	Vulnerabilities	Code Smells	Coverage	Duplications
19-06-02 Watch 0.6.2_BugFix/src/main/java	3.8k	176	226	10k	0.0%	36.9%
Alarm.java	298	2	19	631	0.0%	13.3%
AlarmList.java	20	2	3	75	0.0%	0.0%
AlarmUi.java	200	0	8	483	0.0%	26.0%
Buzzer.java	82	7	3	267	0.0%	33.3%
FunctionList.java	33	0	7	99	0.0%	0.0%
LapSplitList.java	104	12	2	316	0.0%	15.4%
Main.java	23	0	0	101	0.0%	0.0%
RandomDirectionGenerator.java	28	1	5	75	0.0%	0.0%
RandomDirectionGeneratorUi.java	61	0	4	191	0.0%	0.0%
RandomNumberGenerator.java	136	1	7	328	0.0%	63.5%
RandomNumberGeneratorUi.java	137	6	6	371	0.0%	91.4%
rngUi.java	137	6	6	374	0.0%	91.4%
SelectFunction.java	121	3	10	313	0.0%	35.6%
SelectFunctionUi.java	137	0	6	345	0.0%	27.0%
Stopwatch.java	167	8	9	371	0.0%	16.1%
StopWatchUi.java	146	6	6	462	0.0%	46.0%
TimeData.java	227	4	4	637	0.0%	7.3%
TimeKeeping.java	578	2	7	1.7k	0.0%	63.5%
TimeKeepingUi.java	175	1	6	440	0.0%	90.9%
Timer.java	201	10	7	518	0.0%	0.0%
TimerData.java	56	0	1	123	0.0%	32.4%
TimerUi.java	106	0	6	305	0.0%	39.1%
TkUi.java	171	1	6	427	0.0%	92.7%
View.java	461	104	88	1.3k	0.0%	0.0%

C. Quality Profiles

- i. Sonar way
- ii. PMD
- iii. FindBugs
- iv. CheckStyle

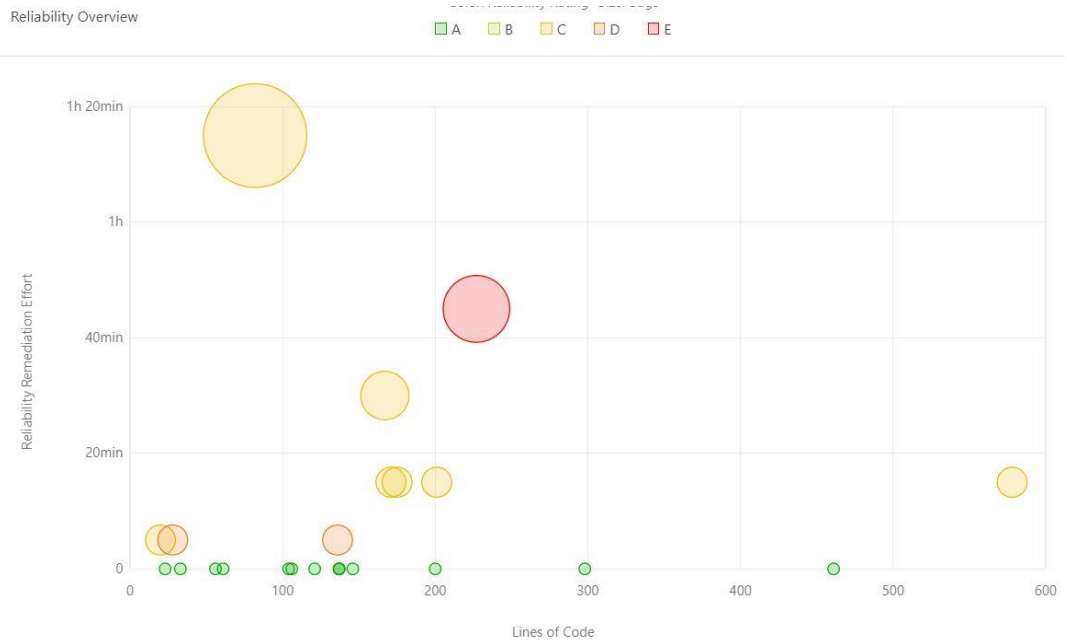
2. Sonar way

A. Overall



B. Graph

Reliability Overview



C. Analysis Result

i. Bug & Vulnerability

The screenshot displays a Jira issue tracking interface. On the left, there is a sidebar with filters and display mode options. The main area shows a list of 17 issues, all of which are vulnerabilities of 'Minor' severity, 'Open' status, and 'Not assigned' to anyone. Each issue has a title starting with 'Make [day] a static final constant or non-public and provide accessors if needed.' and a '10min effort' estimate. The issues are sorted by 'Creation Date' in descending order, with the most recent at the top.

Filters: My Issues | All | Clear All Filters

Display Mode: Issues | Effort

Type: Bug (17), Vulnerability (159), Code Smell (416)

Severity: Blocker (1), Critical (2), Major (14), Minor (159), Info (0)

Resolution: Status, Creation Date, Rule, Tag, Module, Directory, File, Assignee, Author, Language

Issue List:

Issue ID	Title	Severity	Status	Assignee	Effort	Created
L14	Make buzzer a static final constant or non-public and provide accessors if needed.	Minor	Open	Not assigned	10min	5 minutes ago
L17	Make alarm a static final constant or non-public and provide accessors if needed.	Minor	Open	Not assigned	10min	5 minutes ago
L21	Make sec a static final constant or non-public and provide accessors if needed.	Minor	Open	Not assigned	10min	5 minutes ago
L22	Make sec10 a static final constant or non-public and provide accessors if needed.	Minor	Open	Not assigned	10min	5 minutes ago
L23	Make min a static final constant or non-public and provide accessors if needed.	Minor	Open	Not assigned	10min	5 minutes ago
L24	Make min10 a static final constant or non-public and provide accessors if needed.	Minor	Open	Not assigned	10min	5 minutes ago
L25	Make hour a static final constant or non-public and provide accessors if needed.	Minor	Open	Not assigned	10min	5 minutes ago
L26	Make hour10 a static final constant or non-public and provide accessors if needed.	Minor	Open	Not assigned	10min	5 minutes ago
L27	Make part a static final constant or non-public and provide accessors if needed.	Minor	Open	Not assigned	10min	5 minutes ago
L28	Make ison a static final constant or non-public and provide accessors if needed.	Minor	Open	Not assigned	10min	5 minutes ago
L29	Make sun a static final constant or non-public and provide accessors if needed.	Minor	Open	Not assigned	10min	5 minutes ago
L30	Make mon a static final constant or non-public and provide accessors if needed.	Minor	Open	Not assigned	10min	5 minutes ago
L31	Make tue a static final constant or non-public and provide accessors if needed.	Minor	Open	Not assigned	10min	5 minutes ago
L32	Make wed a static final constant or non-public and provide accessors if needed.	Minor	Open	Not assigned	10min	5 minutes ago

<input type="checkbox"/>	Make thu a static final constant or non-public and provide accessors if needed. ***	5 minutes ago	L33	Comment	
<input type="checkbox"/>	Make fri a static final constant or non-public and provide accessors if needed. ***	5 minutes ago	L34	Comment	
<input type="checkbox"/>	Make sat a static final constant or non-public and provide accessors if needed. ***	5 minutes ago	L35	Comment	
<input type="checkbox"/>	Make alarmIndex a static final constant or non-public and provide accessors if needed. ***	5 minutes ago	L36	Comment	
19-06-02 Watch 0.6.2_BugFix/src/main/java/AlarmList.java					
<input type="checkbox"/>	Make alarm a static final constant or non-public and provide accessors if needed. ***	5 minutes ago	L8	Comment	
<input type="checkbox"/>	Make index a static final constant or non-public and provide accessors if needed. ***	5 minutes ago	L10	Comment	
<input type="checkbox"/>	Don't extend "Thread", since the "run" method is not overridden. ***	5 minutes ago	L26	Comment	
19-06-02 Watch 0.6.2_BugFix/src/main/java/Buzzer.java					
<input type="checkbox"/>	Make alist a static final constant or non-public and provide accessors if needed. ***	5 minutes ago	L10	Comment	
<input type="checkbox"/>	Make on a static final constant or non-public and provide accessors if needed. ***	5 minutes ago	L12	Comment	
<input type="checkbox"/>	Make funcType a static final constant or non-public and provide accessors if needed. ***	5 minutes ago	L15	Comment	
<input type="checkbox"/>	Either re-interrupt this method or rethrow the "InterruptedException". ***	5 minutes ago	L39	Comment	
<input type="checkbox"/>	Either re-interrupt this method or rethrow the "InterruptedException". ***	5 minutes ago	L44	Comment	
<input type="checkbox"/>	Either re-interrupt this method or rethrow the "InterruptedException". ***	5 minutes ago	L57	Comment	
<input type="checkbox"/>	Either re-interrupt this method or rethrow the "InterruptedException". ***	5 minutes ago	L62	Comment	
<input type="checkbox"/>	Either re-interrupt this method or rethrow the "InterruptedException". ***	6 minutes ago	L81	Comment	
19-06-02 Watch 0.6.2_BugFix/src/main/java/FunctionList.java					
<input type="checkbox"/>	Make alarm a static final constant or non-public and provide accessors if needed. ***	6 minutes ago	L14	Comment	
<input type="checkbox"/>	Make rdg a static final constant or non-public and provide accessors if needed. ***	6 minutes ago	L15	Comment	
<input type="checkbox"/>	Make rng a static final constant or non-public and provide accessors if needed. ***	6 minutes ago	L16	Comment	
<input type="checkbox"/>	Make timekeeping a static final constant or non-public and provide accessors if needed. ***	5 minutes ago	L17	Comment	
<input type="checkbox"/>	Make timer a static final constant or non-public and provide accessors if needed. ***	5 minutes ago	L18	Comment	
<input type="checkbox"/>	Make stopwatch a static final constant or non-public and provide accessors if needed. ***	5 minutes ago	L19	Comment	
<input type="checkbox"/>	Make functionon a static final constant or non-public and provide accessors if needed. ***	6 minutes ago	L21	Comment	
19-06-02 Watch 0.6.2_BugFix/src/main/java/LapSplitList.java					
<input type="checkbox"/>	Make nodeNum a static final constant or non-public and provide accessors if needed. ***	6 minutes ago	L9	Comment	
<input type="checkbox"/>	Make lns a static final constant or non-public and provide accessors if needed. ***	5 minutes ago	L11	Comment	
19-06-02 Watch 0.6.2_BugFix/src/main/java/RandomDirectionGenerator.java					
<input type="checkbox"/>	Make funcNum a static final constant or non-public and provide accessors if needed. ***	6 minutes ago	L13	Comment	
<input type="checkbox"/>	Make result a static final constant or non-public and provide accessors if needed. ***	6 minutes ago	L14	Comment	
<input type="checkbox"/>	Make eLCD a static final constant or non-public and provide accessors if needed. ***	6 minutes ago	L15	Comment	

<input type="checkbox"/>	Save and re-use this "Random". ^{***}	6 minutes ago	L25					Not assigned	5min effort	Comment		No tags
19-06-02 Watch 0.6.2_BugFix/src/main/java/RandomNumberGenerator.java												
<input type="checkbox"/>	Make funcNum a static final constant or non-public and provide accessors if needed. ^{***}	6 minutes ago	L16					Not assigned	10min effort	Comment		
<input type="checkbox"/>	Make saveValue a static final constant or non-public and provide accessors if needed. ^{***}	6 minutes ago	L17					Not assigned	10min effort	Comment		
<input type="checkbox"/>	Make part a static final constant or non-public and provide accessors if needed. ^{***}	6 minutes ago	L18					Not assigned	10min effort	Comment		
<input type="checkbox"/>	Make scope a static final constant or non-public and provide accessors if needed. ^{***}	6 minutes ago	L19					Not assigned	10min effort	Comment		
<input type="checkbox"/>	Save and re-use this "Random". ^{***}	6 minutes ago	L157					Not assigned	5min effort	Comment		No tags
19-06-02 Watch 0.6.2_BugFix/src/main/java/SelectFunction.java												
<input type="checkbox"/>	Make view a static final constant or non-public and provide accessors if needed. ^{***}	6 minutes ago	L14					Not assigned	10min effort	Comment		
<input type="checkbox"/>	Make funcNum a static final constant or non-public and provide accessors if needed. ^{***}	6 minutes ago	L15					Not assigned	10min effort	Comment		
<input type="checkbox"/>	Make functionlist a static final constant or non-public and provide accessors if needed. ^{***}	6 minutes ago	L16					Not assigned	10min effort	Comment		
<input type="checkbox"/>	Make currFunc a static final constant or non-public and provide accessors if needed. ^{***}	6 minutes ago	L17					Not assigned	10min effort	Comment		
<input type="checkbox"/>	Make selectedFunction a static final constant or non-public and provide accessors if needed. ^{***}	6 minutes ago	L18					Not assigned	10min effort	Comment		
<input type="checkbox"/>	Make showArray a static final constant or non-public and provide accessors if needed. ^{***}	6 minutes ago	L19					Not assigned	10min effort	Comment		
<input type="checkbox"/>	Make toSet a static final constant or non-public and provide accessors if needed. ^{***}	6 minutes ago	L20					Not assigned	10min effort	Comment		
<input type="checkbox"/>	Make array a static final constant or non-public and provide accessors if needed. ^{***}	6 minutes ago	L21					Not assigned	10min effort	Comment		
<input type="checkbox"/>	Make part a static final constant or non-public and provide accessors if needed. ^{***}	6 minutes ago	L22					Not assigned	10min effort	Comment		
<input type="checkbox"/>	Make setting a static final constant or non-public and provide accessors if needed. ^{***}	6 minutes ago	L23					Not assigned	10min effort	Comment		
19-06-02 Watch 0.6.2_BugFix/src/main/java/Stopwatch.java												
<input type="checkbox"/>	Make funcNum a static final constant or non-public and provide accessors if needed. ^{***}	6 minutes ago	L15					Not assigned	10min effort	Comment		
<input type="checkbox"/>	Make llist a static final constant or non-public and provide accessors if needed. ^{***}	6 minutes ago	L16					Not assigned	10min effort	Comment		
<input type="checkbox"/>	Make lns a static final constant or non-public and provide accessors if needed. ^{***}	6 minutes ago	L17					Not assigned	10min effort	Comment		
<input type="checkbox"/>	Make msec a static final constant or non-public and provide accessors if needed. ^{***}	6 minutes ago	L18					Not assigned	10min effort	Comment		
<input type="checkbox"/>	Make sec a static final constant or non-public and provide accessors if needed. ^{***}	6 minutes ago	L19					Not assigned	10min effort	Comment		
<input type="checkbox"/>	Make min a static final constant or non-public and provide accessors if needed. ^{***}	6 minutes ago	L20					Not assigned	10min effort	Comment		
<input type="checkbox"/>	Make runstop a static final constant or non-public and provide accessors if needed. ^{***}	6 minutes ago	L21					Not assigned	10min effort	Comment		
<input type="checkbox"/>	Make paused a static final constant or non-public and provide accessors if needed. ^{***}	6 minutes ago	L22					Not assigned	10min effort	Comment		
<input type="checkbox"/>	Either re-interrupt this method or rethrow the "InterruptedException". ^{***}	6 minutes ago	L45					Not assigned	15min effort	Comment		error-handling, multi-threading
<input type="checkbox"/>	Either re-interrupt this method or rethrow the "InterruptedException". ^{***}	6 minutes ago	L51					Not assigned	15min effort	Comment		error-handling, multi-threading
19-06-02 Watch 0.6.2_BugFix/src/main/java/TimeData.java												
<input type="checkbox"/>	Make onoff a static final constant or non-public and provide accessors if needed. ^{***}	6 minutes ago	L9					Not assigned	10min effort	Comment		

ii. Code Smell

team1 | master | June 6, 2019, 8:09 PM | Version 1.1

Overview Issues Measures Code Activity Administration

My Issues All Bulk Change 1 / 416 Issues

Filters Clear All Filters

Display Mode Issues Effort

Type Clear

- Bug 17
- Vulnerability 159
- Code Smell 416

Severity

- Blocker 0
- Critical 44
- Major 191
- Minor 116
- Info 65

Resolution

Status

Creation Date

Rule

Tag

Module

Directory

File

Assignee

Author

Language

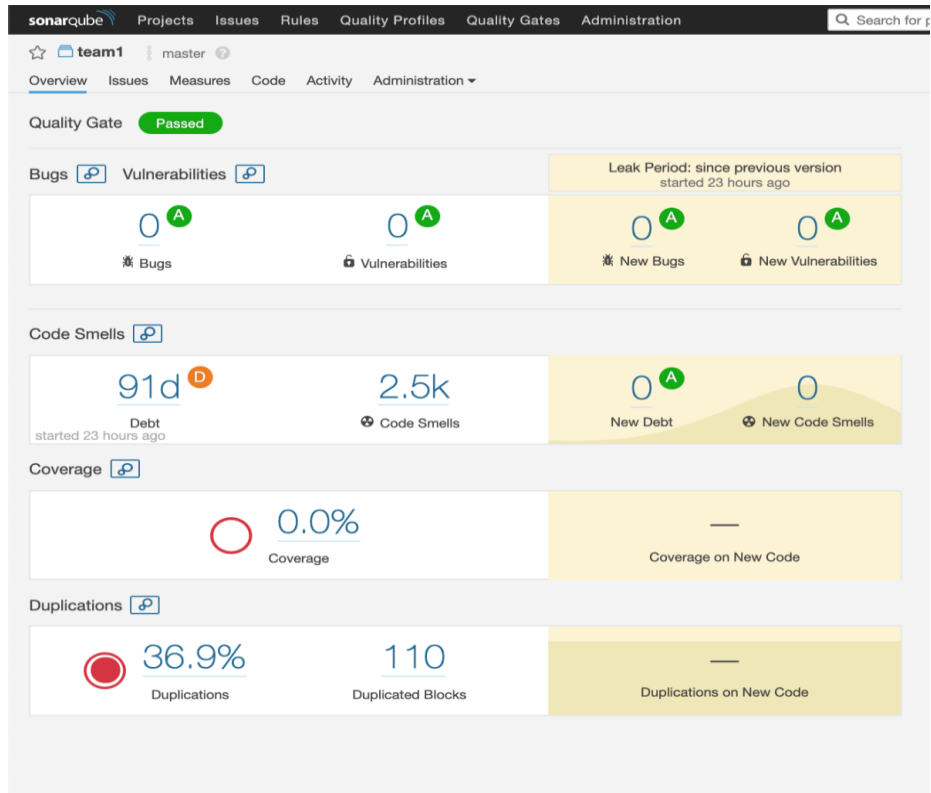
19-06-02 Watch 0.6.2_BugFix/arc/main/java/Alarm.java

- 2 duplicated blocks of code must be removed. [Code Smell] [Major] [Open] [Not assigned] [30min effort] [Comment] [7 minutes ago] [pitfall]
- Move this file to a named package. [Code Smell] [Minor] [Open] [Not assigned] [10min effort] [Comment] [7 minutes ago] [convention]
- Remove this unused import java.awt.event.ActionEvent. [Code Smell] [Minor] [Open] [Not assigned] [2min effort] [Comment] [7 minutes ago] [L1] [unused]
- Remove this unused import java.awt.event.ActionListener. [Code Smell] [Minor] [Open] [Not assigned] [2min effort] [Comment] [7 minutes ago] [L2] [unused]
- Remove this unused "functNum" private field. [Code Smell] [Major] [Open] [Not assigned] [5min effort] [Comment] [7 minutes ago] [L16] [unused]
- Replace the synchronized class "Vector" by an unsynchronized one such as "ArrayList" or "LinkedList". [Code Smell] [Major] [Open] [Not assigned] [20min effort] [Comment] [7 minutes ago] [L17] [performance]
- Rename field "alarm". [Code Smell] [Major] [Open] [Not assigned] [10min effort] [Comment] [7 minutes ago] [L17] [brain-overload]
- Complete the task associated to this TODO comment. [Code Smell] [Info] [Open] [Not assigned] [Comment] [7 minutes ago] [L40] [cwe]
- This block of commented-out lines of code should be removed. [Code Smell] [Major] [Open] [Not assigned] [5min effort] [Comment] [7 minutes ago] [L42] [based-on-misra, misra, unused]
- Refactor this method to reduce its Cognitive Complexity from 17 to the 15 allowed. [Code Smell] [Critical] [Open] [Not assigned] [7min effort] [Comment] [7 minutes ago] [L45] [L47] [brain-overload]
- Complete the task associated to this TODO comment. [Code Smell] [Info] [Open] [Not assigned] [Comment] [7 minutes ago] [L47] [cwe]
- Complete the task associated to this TODO comment. [Code Smell] [Info] [Open] [Not assigned] [Comment] [7 minutes ago] [L118] [cwe]
- This block of commented-out lines of code should be removed. [Code Smell] [Major] [Open] [Not assigned] [5min effort] [Comment] [7 minutes ago] [L119] [based-on-misra, misra, unused]
- Refactor this method to reduce its Cognitive Complexity from 50 to the 15 allowed. [Code Smell] [Critical] [Open] [Not assigned] [40min effort] [Comment] [7 minutes ago] [L137] [L139] [brain-overload]
- This block of commented-out lines of code should be removed. [Code Smell] [Major] [Open] [Not assigned] [5min effort] [Comment] [7 minutes ago] [L138] [based-on-misra, misra, unused]
- This block of commented-out lines of code should be removed. [Code Smell] [Major] [Open] [Not assigned] [5min effort] [Comment] [7 minutes ago] [L141] [based-on-misra, misra, unused]
- Add a default case to this switch. [Code Smell] [Critical] [Open] [Not assigned] [5min effort] [Comment] [7 minutes ago] [L144] [based-on-misra, cert, cwe, misra]
- Merge this if statement with the enclosing one. [Code Smell] [Major] [Open] [Not assigned] [5min effort] [Comment] [7 minutes ago] [L182] [clumsy]
- Add a default case to this switch. [Code Smell] [Critical] [Open] [Not assigned] [5min effort] [Comment] [7 minutes ago] [L212] [based-on-misra, cert, cwe, misra]
- Complete the task associated to this TODO comment. [Code Smell] [Info] [Open] [Not assigned] [Comment] [7 minutes ago] [L273] [cwe]
- Directly append the argument of String.valueOf(). [Code Smell] [Minor] [Open] [Not assigned] [5min effort] [Comment] [7 minutes ago] [L274] [clumsy]
- Directly append the argument of String.valueOf(). [Code Smell] [Minor] [Open] [Not assigned] [5min effort] [Comment] [7 minutes ago] [L274] [clumsy]
- Directly append the argument of String.valueOf(). [Code Smell] [Minor] [Open] [Not assigned] [5min effort] [Comment] [7 minutes ago] [L274] [clumsy]
- Directly append the argument of String.valueOf(). [Code Smell] [Minor] [Open] [Not assigned] [5min effort] [Comment] [7 minutes ago] [L275] [clumsy]
- Directly append the argument of String.valueOf(). [Code Smell] [Minor] [Open] [Not assigned] [5min effort] [Comment] [7 minutes ago] [L275] [clumsy]
- Directly append the argument of String.valueOf(). [Code Smell] [Minor] [Open] [Not assigned] [5min effort] [Comment] [7 minutes ago] [L275] [clumsy]
- Directly append the argument of String.valueOf(). [Code Smell] [Minor] [Open] [Not assigned] [5min effort] [Comment] [7 minutes ago] [L275] [clumsy]
- Directly append the argument of String.valueOf(). [Code Smell] [Minor] [Open] [Not assigned] [5min effort] [Comment] [7 minutes ago] [L276] [clumsy]
- Directly append the argument of String.valueOf(). [Code Smell] [Minor] [Open] [Not assigned] [5min effort] [Comment] [7 minutes ago] [L276] [clumsy]

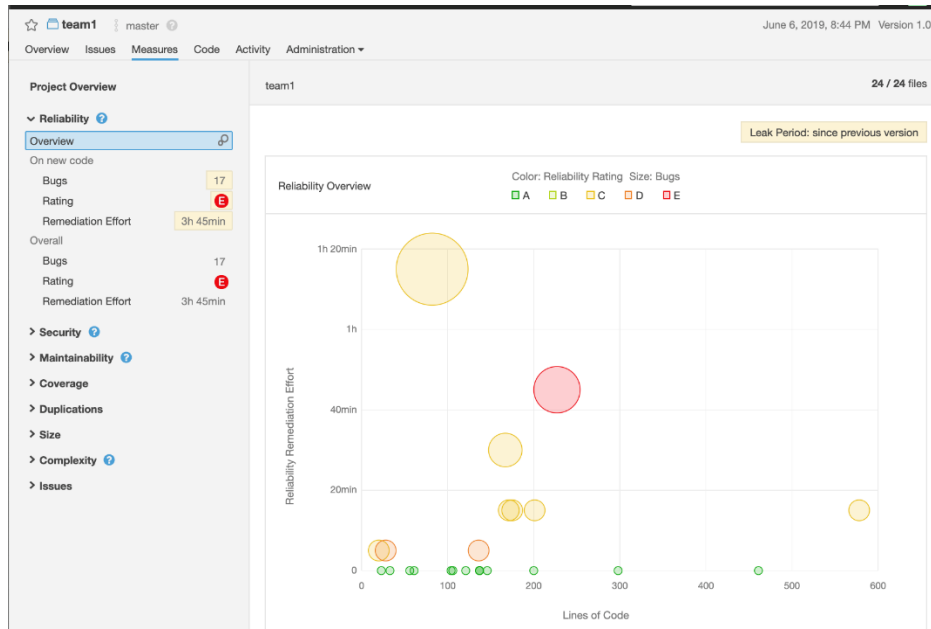
<input type="checkbox"/>	Directly append the argument of <code>String.valueOf()</code> . ^{***}	8 minutes ago	L276		
	Code Smell Minor Open Not assigned 5min effort Comment				clumsy
<input type="checkbox"/>	Directly append the argument of <code>String.valueOf()</code> . ^{***}	8 minutes ago	L276		
	Code Smell Minor Open Not assigned 5min effort Comment				clumsy
<input type="checkbox"/>	Directly append the argument of <code>String.valueOf()</code> . ^{***}	8 minutes ago	L277		
	Code Smell Minor Open Not assigned 5min effort Comment				clumsy
<input type="checkbox"/>	Directly append the argument of <code>String.valueOf()</code> . ^{***}	8 minutes ago	L277		
	Code Smell Minor Open Not assigned 5min effort Comment				clumsy
<input type="checkbox"/>	Complete the task associated to this TODO comment. ^{***}	8 minutes ago	L300		
	Code Smell Info Open Not assigned Comment				cwe
<input type="checkbox"/>	Complete the task associated to this TODO comment. ^{***}	8 minutes ago	L308		
	Code Smell Info Open Not assigned Comment				cwe
<input type="checkbox"/>	Use <code>isEmpty()</code> to check whether the collection is empty or not. ^{***}	8 minutes ago	L311		
	Code Smell Minor Open Not assigned 2min effort Comment				clumsy
<input type="checkbox"/>	Complete the task associated to this TODO comment. ^{***}	8 minutes ago	L320		
	Code Smell Info Open Not assigned Comment				cwe
<input type="checkbox"/>	Use <code>isEmpty()</code> to check whether the collection is empty or not. ^{***}	8 minutes ago	L321		
	Code Smell Minor Open Not assigned 2min effort Comment				clumsy
<input type="checkbox"/>	This block of commented-out lines of code should be removed. ^{***}	8 minutes ago	L323		
	Code Smell Major Open Not assigned 5min effort Comment				based-on-misra, misra, unused
<input type="checkbox"/>	Complete the task associated to this TODO comment. ^{***}	8 minutes ago	L330		
	Code Smell Info Open Not assigned Comment				cwe
<input type="checkbox"/>	Complete the task associated to this TODO comment. ^{***}	8 minutes ago	L335		
	Code Smell Info Open Not assigned Comment				cwe
<input type="checkbox"/>	Complete the task associated to this TODO comment. ^{***}	8 minutes ago	L341		
	Code Smell Info Open Not assigned Comment				cwe
19-06-02 Watch 0.6.2_BugFix/src/main/java/AlarmList.java					
<input type="checkbox"/>	Move this file to a named package. ^{***}	8 minutes ago			
	Code Smell Minor Open Not assigned 10min effort Comment				convention

3. PMD

A. Overall



B. Graph



C. Analysis Result

i. Bug & Vulnerability

- (Not Found)

ii. Code Smell

The screenshot displays the SonarQube interface for a project named 'team1'. The main view shows a list of code smells for the file '19-06-02 Watch 0.6.2_BugFix/src/main/java/Alarm.java'. The interface includes a navigation bar with 'Projects', 'Issues', 'Rules', 'Quality Profiles', 'Quality Gates', and 'Administration'. A search bar is present at the top right. The left sidebar contains filters for 'Type' (Bug, Vulnerability, Code Smell) and 'Severity' (Blocker, Critical, Major, Minor, Info). The main content area shows a list of code smells with columns for description, severity, effort, and date. The following table summarizes the visible code smells:

Description	Severity	Effort	Date
Avoid unused imports such as 'java.awt.ActionEvent'	Code Smell	5min	3 days ago
Avoid unused imports such as 'java.awt.ActionListener'	Code Smell	5min	3 days ago
All classes and interfaces must belong to a named package	Code Smell	10min	3 days ago
Possible God Class (WMC=70, ATFD=9, TCC=31.818%)	Code Smell	2h	3 days ago
The class 'Alarm' has a Modified Cyclomatic Complexity of 3 (Highest = 20).	Code Smell	1h	3 days ago
The class 'Alarm' has a Standard Cyclomatic Complexity of 5 (Highest = 46).	Code Smell	1h	3 days ago
Too many fields	Code Smell	1h	3 days ago
Header comments are required	Code Smell	5min	3 days ago
Parameter 'view' is not assigned and could be declared final	Code Smell	10min	3 days ago
Public method and constructor comments are required	Code Smell	5min	3 days ago
Parameter 'alist' is not assigned and could be declared final	Code Smell	10min	3 days ago
Parameter 'buzzer' is not assigned and could be declared final	Code Smell	10min	3 days ago
Found non-transient, non-static member. Please mark as transient or provide accessors.	Code Smell	30min	3 days ago
Field comments are required	Code Smell	5min	3 days ago

sonarcube Projects Issues Rules Quality Profiles Quality Gates Administration June 6, 2019, 7:22 PM Version 1.0

team1 master Overview Issues Measures Code Activity Administration

My Issues All Bulk Change 301 / 2,496 issues

Filters [Clear All Filters](#)

Display Mode Issues Effort

Type [Clear](#)

- Bug 0
- Vulnerability 0
- Code Smell 2.5k

Severity

- Blocker 0
- Critical 39
- Major 1.5k
- Minor 895
- Info 35

Resolution

Status

Creation Date

Rule

Tag

Module

Directory

File

Assignee

Author

Language

<input type="checkbox"/>	Field comments are required	Code Smell	Minor	Open	Not assigned	5min effort	Comment	3 days ago	L17	No tags
<input type="checkbox"/>	Fields should be declared at the top of the class, before any method declarations, constructors, initializers or inner classes.	Code Smell	Minor	Open	Not assigned	10min effort	Comment	3 days ago	L17	No tags
<input type="checkbox"/>	Found non-transient, non-static member. Please mark as transient or provide accessors.	Code Smell	Major	Open	Not assigned	30min effort	Comment	3 days ago	L20	No tags
<input type="checkbox"/>	To avoid mistakes add a comment at the beginning of the alist field if you want a default access modifier	Code Smell	Major	Open	Not assigned	5min effort	Comment	3 days ago	L20	No tags
<input type="checkbox"/>	Field comments are required	Code Smell	Minor	Open	Not assigned	5min effort	Comment	3 days ago	L20	No tags
<input type="checkbox"/>	Fields should be declared at the top of the class, before any method declarations, constructors, initializers or inner classes.	Code Smell	Minor	Open	Not assigned	10min effort	Comment	3 days ago	L20	No tags
<input type="checkbox"/>	Use explicit scoping instead of the default package private level	Code Smell	Minor	Open	Not assigned	15min effort	Comment	3 days ago	L20	No tags
<input type="checkbox"/>	Avoid using redundant field initializer for 'sec'	Code Smell	Major	Open	Not assigned	2min effort	Comment	3 days ago	L21	No tags
<input type="checkbox"/>	Found non-transient, non-static member. Please mark as transient or provide accessors.	Code Smell	Major	Open	Not assigned	30min effort	Comment	3 days ago	L21	No tags
<input type="checkbox"/>	Field comments are required	Code Smell	Minor	Open	Not assigned	5min effort	Comment	3 days ago	L21	No tags
<input type="checkbox"/>	Fields should be declared at the top of the class, before any method declarations, constructors, initializers or inner classes.	Code Smell	Minor	Open	Not assigned	10min effort	Comment	3 days ago	L21	No tags
<input type="checkbox"/>	Avoid using redundant field initializer for 'sec10'	Code Smell	Major	Open	Not assigned	2min effort	Comment	3 days ago	L22	No tags
<input type="checkbox"/>	Found non-transient, non-static member. Please mark as transient or provide accessors.	Code Smell	Major	Open	Not assigned	30min effort	Comment	3 days ago	L22	No tags

sonarcube Projects Issues Rules Quality Profiles Quality Gates Administration June 6, 2019, 7:22 PM Version 1.0

team1 master Overview Issues Measures Code Activity Administration

My Issues All Bulk Change 301 / 2,496 issues

Filters [Clear All Filters](#)

Display Mode Issues Effort

Type [Clear](#)

- Bug 0
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Assignee

Author

Language

<input type="checkbox"/>	Field comments are required	Code Smell	Minor	Open	Not assigned	5min effort	Comment	3 days ago	L22	No tags
<input type="checkbox"/>	Fields should be declared at the top of the class, before any method declarations, constructors, initializers or inner classes.	Code Smell	Minor	Open	Not assigned	10min effort	Comment	3 days ago	L22	No tags
<input type="checkbox"/>	Avoid using redundant field initializer for 'min'	Code Smell	Major	Open	Not assigned	2min effort	Comment	3 days ago	L23	No tags
<input type="checkbox"/>	Found non-transient, non-static member. Please mark as transient or provide accessors.	Code Smell	Major	Open	Not assigned	30min effort	Comment	3 days ago	L23	No tags
<input type="checkbox"/>	Field comments are required	Code Smell	Minor	Open	Not assigned	5min effort	Comment	3 days ago	L23	No tags
<input type="checkbox"/>	Fields should be declared at the top of the class, before any method declarations, constructors, initializers or inner classes.	Code Smell	Minor	Open	Not assigned	10min effort	Comment	3 days ago	L23	No tags
<input type="checkbox"/>	Avoid using redundant field initializer for 'min10'	Code Smell	Major	Open	Not assigned	2min effort	Comment	3 days ago	L24	No tags
<input type="checkbox"/>	Found non-transient, non-static member. Please mark as transient or provide accessors.	Code Smell	Major	Open	Not assigned	30min effort	Comment	3 days ago	L24	No tags
<input type="checkbox"/>	Field comments are required	Code Smell	Minor	Open	Not assigned	5min effort	Comment	3 days ago	L24	No tags
<input type="checkbox"/>	Fields should be declared at the top of the class, before any method declarations, constructors, initializers or inner classes.	Code Smell	Minor	Open	Not assigned	10min effort	Comment	3 days ago	L24	No tags
<input type="checkbox"/>	Avoid using redundant field initializer for 'hour'	Code Smell	Major	Open	Not assigned	2min effort	Comment	3 days ago	L25	No tags
<input type="checkbox"/>	Found non-transient, non-static member. Please mark as transient or provide accessors.	Code Smell	Major	Open	Not assigned	30min effort	Comment	3 days ago	L25	No tags
<input type="checkbox"/>	Field comments are required	Code Smell	Minor	Open	Not assigned	5min effort	Comment	3 days ago	L25	No tags

sonarcube Projects Issues Rules Quality Profiles Quality Gates Administration

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Overview Issues Measures Code Activity Administration

My Issues All Bulk Change 301 / 2,496 issues

Filters [Clear All Filters](#)

Display Mode Issues Effort

Type [Clear](#)

- Bug 0
- Vulnerability 0
- Code Smell 2.5k

Severity

- Blocker 0
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- Major 1.5k

Resolution

Status

Creation Date

Rule

Tag

Module

Directory

File

Assignee

Author

Language

<input type="checkbox"/>	Fields should be declared at the top of the class, before any method declarations, constructors, initializers or inner classes. ...	3 days ago	L25	🔍	📄
<input type="checkbox"/>	Code Smell ▼ Minor ▼ Open ▼ Not assigned ▼ 10min effort Comment			🔍	No tags
<input type="checkbox"/>	Avoid using redundant field initializer for 'hour10' ...	3 days ago	L26	🔍	📄
<input type="checkbox"/>	Code Smell ▼ Major ▼ Open ▼ Not assigned ▼ 2min effort Comment			🔍	No tags
<input type="checkbox"/>	Found non-transient, non-static member. Please mark as transient or provide accessors. ...	3 days ago	L26	🔍	📄
<input type="checkbox"/>	Code Smell ▼ Major ▼ Open ▼ Not assigned ▼ 30min effort Comment			🔍	No tags
<input type="checkbox"/>	Field comments are required ...	3 days ago	L26	🔍	📄
<input type="checkbox"/>	Code Smell ▼ Minor ▼ Open ▼ Not assigned ▼ 5min effort Comment			🔍	No tags
<input type="checkbox"/>	Fields should be declared at the top of the class, before any method declarations, constructors, initializers or inner classes. ...	3 days ago	L26	🔍	📄
<input type="checkbox"/>	Code Smell ▼ Minor ▼ Open ▼ Not assigned ▼ 10min effort Comment			🔍	No tags
<input type="checkbox"/>	Found non-transient, non-static member. Please mark as transient or provide accessors. ...	3 days ago	L27	🔍	📄
<input type="checkbox"/>	Code Smell ▼ Major ▼ Open ▼ Not assigned ▼ 30min effort Comment			🔍	No tags
<input type="checkbox"/>	Field comments are required ...	3 days ago	L27	🔍	📄
<input type="checkbox"/>	Code Smell ▼ Minor ▼ Open ▼ Not assigned ▼ 5min effort Comment			🔍	No tags
<input type="checkbox"/>	Fields should be declared at the top of the class, before any method declarations, constructors, initializers or inner classes. ...	3 days ago	L27	🔍	📄
<input type="checkbox"/>	Code Smell ▼ Minor ▼ Open ▼ Not assigned ▼ 10min effort Comment			🔍	No tags
<input type="checkbox"/>	Found non-transient, non-static member. Please mark as transient or provide accessors. ...	3 days ago	L28	🔍	📄
<input type="checkbox"/>	Code Smell ▼ Major ▼ Open ▼ Not assigned ▼ 30min effort Comment			🔍	No tags
<input type="checkbox"/>	Avoid using redundant field initializer for 'iaon' ...	3 days ago	L28	🔍	📄
<input type="checkbox"/>	Code Smell ▼ Major ▼ Open ▼ Not assigned ▼ 2min effort Comment			🔍	No tags
<input type="checkbox"/>	Field comments are required ...	3 days ago	L28	🔍	📄
<input type="checkbox"/>	Code Smell ▼ Minor ▼ Open ▼ Not assigned ▼ 5min effort Comment			🔍	No tags
<input type="checkbox"/>	Fields should be declared at the top of the class, before any method declarations, constructors, initializers or inner classes. ...	3 days ago	L28	🔍	📄
<input type="checkbox"/>	Code Smell ▼ Minor ▼ Open ▼ Not assigned ▼ 10min effort Comment			🔍	No tags
<input type="checkbox"/>	Avoid using redundant field initializer for 'sun' ...	3 days ago	L29	🔍	📄
<input type="checkbox"/>	Code Smell ▼ Major ▼ Open ▼ Not assigned ▼ 2min effort Comment			🔍	No tags

sonarcube Projects Issues Rules Quality Profiles Quality Gates Administration

team1 master June 6, 2019, 7:22 PM Version 1.0

Overview Issues Measures Code Activity Administration

My Issues All Bulk Change 301 / 2,496 issues

Filters [Clear All Filters](#)

Display Mode Issues Effort

Type [Clear](#)

- Bug 0
- Vulnerability 0
- Code Smell 2.5k

Severity

- Blocker 0
- Minor 895
- Critical 39
- Info 35
- Major 1.5k

Resolution

Status

Creation Date

Rule

Tag

Module

Directory

File

Assignee

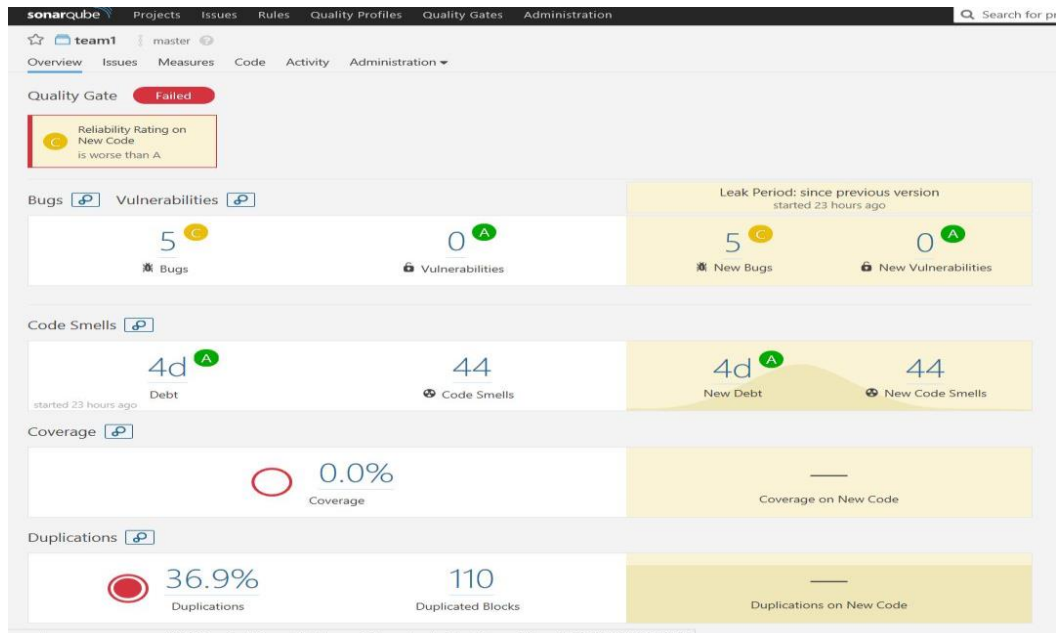
Author

Language

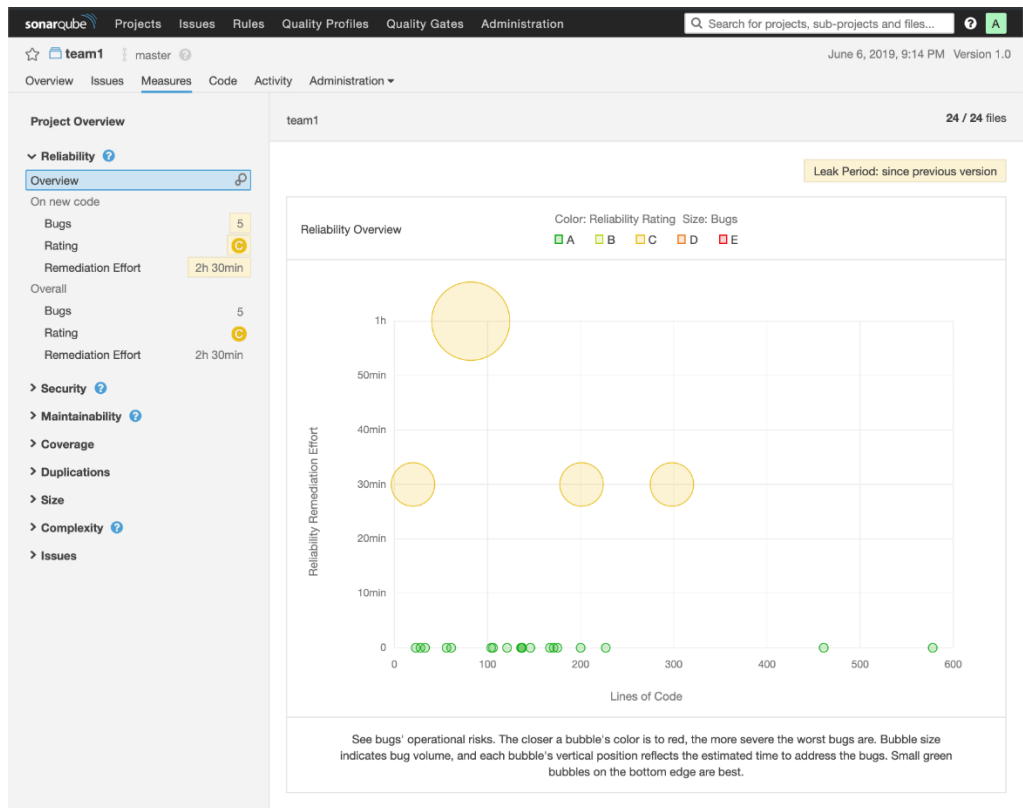
<input type="checkbox"/>	Found non-transient, non-static member. Please mark as transient or provide accessors. ...	3 days ago	L29	🔍	📄
<input type="checkbox"/>	Code Smell ▼ Major ▼ Open ▼ Not assigned ▼ 30min effort Comment			🔍	No tags
<input type="checkbox"/>	Field comments are required ...	3 days ago	L29	🔍	📄
<input type="checkbox"/>	Code Smell ▼ Minor ▼ Open ▼ Not assigned ▼ 5min effort Comment			🔍	No tags
<input type="checkbox"/>	Fields should be declared at the top of the class, before any method declarations, constructors, initializers or inner classes. ...	3 days ago	L29	🔍	📄
<input type="checkbox"/>	Code Smell ▼ Minor ▼ Open ▼ Not assigned ▼ 10min effort Comment			🔍	No tags
<input type="checkbox"/>	Found non-transient, non-static member. Please mark as transient or provide accessors. ...	3 days ago	L30	🔍	📄
<input type="checkbox"/>	Code Smell ▼ Major ▼ Open ▼ Not assigned ▼ 30min effort Comment			🔍	No tags
<input type="checkbox"/>	Avoid using redundant field initializer for 'mon' ...	3 days ago	L30	🔍	📄
<input type="checkbox"/>	Code Smell ▼ Major ▼ Open ▼ Not assigned ▼ 2min effort Comment			🔍	No tags
<input type="checkbox"/>	Field comments are required ...	3 days ago	L30	🔍	📄
<input type="checkbox"/>	Code Smell ▼ Minor ▼ Open ▼ Not assigned ▼ 5min effort Comment			🔍	No tags
<input type="checkbox"/>	Fields should be declared at the top of the class, before any method declarations, constructors, initializers or inner classes. ...	3 days ago	L30	🔍	📄
<input type="checkbox"/>	Code Smell ▼ Minor ▼ Open ▼ Not assigned ▼ 10min effort Comment			🔍	No tags
<input type="checkbox"/>	Avoid using redundant field initializer for 'tue' ...	3 days ago	L31	🔍	📄
<input type="checkbox"/>	Code Smell ▼ Major ▼ Open ▼ Not assigned ▼ 2min effort Comment			🔍	No tags
<input type="checkbox"/>	Found non-transient, non-static member. Please mark as transient or provide accessors. ...	3 days ago	L31	🔍	📄
<input type="checkbox"/>	Code Smell ▼ Major ▼ Open ▼ Not assigned ▼ 30min effort Comment			🔍	No tags
<input type="checkbox"/>	Field comments are required ...	3 days ago	L31	🔍	📄
<input type="checkbox"/>	Code Smell ▼ Minor ▼ Open ▼ Not assigned ▼ 5min effort Comment			🔍	No tags
<input type="checkbox"/>	Fields should be declared at the top of the class, before any method declarations, constructors, initializers or inner classes. ...	3 days ago	L31	🔍	📄
<input type="checkbox"/>	Code Smell ▼ Minor ▼ Open ▼ Not assigned ▼ 10min effort Comment			🔍	No tags
<input type="checkbox"/>	Avoid using redundant field initializer for 'wed' ...	3 days ago	L32	🔍	📄
<input type="checkbox"/>	Code Smell ▼ Major ▼ Open ▼ Not assigned ▼ 2min effort Comment			🔍	No tags
<input type="checkbox"/>	Found non-transient, non-static member. Please mark as transient or provide accessors. ...	3 days ago	L32	🔍	📄
<input type="checkbox"/>	Code Smell ▼ Major ▼ Open ▼ Not assigned ▼ 30min effort Comment			🔍	No tags

4. FindBugs

A. Overall



B. Graph



C. Analysis Result

i. Bug & Vulnerability

The screenshot displays a bug tracking interface. On the left, a sidebar contains filters and display options. The 'Type' filter is set to 'Bug' (5 items) and 'Code Smell' (44 items). The 'Severity' filter shows 'Major' (5 items) and 'Info' (0 items). The main panel shows a list of bugs with details such as the file path, issue title, status, effort, and creation date.

File Path	Issue Title	Status	Effort	Creation Date
0.6.2_BugFix/src/main/java/Alarm.java	Unread field: Alarm.funcNum	Open	30min	19-06-02
0.6.2_BugFix/src/main/java/AlarmList.java	Unread field: AlarmList.manageSnooze	Open	30min	19-06-02
0.6.2_BugFix/src/main/java/Buzzer.java	Unused field: Buzzer.duration	Open	30min	19-06-02
0.6.2_BugFix/src/main/java/Buzzer.java	Unused field: Buzzer.interval	Open	30min	19-06-02
0.6.2_BugFix/src/main/java/Timer.java	Uninitialized read of view in new Timer(View, Buzzer)	Open	30min	19-06-02

ii. Code Smell

The screenshot displays a bug tracking interface showing code smells. The sidebar filters are set to 'Bug' (5 items) and 'Code Smell' (44 items). The main panel shows a list of code smells with details such as the file path, issue title, status, effort, and creation date.

File Path	Issue Title	Status	Effort	Creation Date
0.6.2_BugFix/src/main/java/Alarm.java	Switch statement found in Alarm.setAlarmPart(int) where default case is missing	Open	1h	19-06-02
0.6.2_BugFix/src/main/java/AlarmList.java	Unread public/protected field: AlarmList.index	Open	30min	19-06-02
0.6.2_BugFix/src/main/java/FunctionList.java	Unread public/protected field: FunctionList.rdg	Open	30min	19-06-02
0.6.2_BugFix/src/main/java/FunctionList.java	Unread public/protected field: FunctionList.stopwatch	Open	30min	19-06-02
0.6.2_BugFix/src/main/java/LapSplitList.java	Switch statement found in LapSplitList.storeLapSplit(Vector) where default case is missing	Open	1h	19-06-02
0.6.2_BugFix/src/main/java/LapSplitList.java	Check for oddness that won't work for negative numbers in LapSplitList.getList()	Open	1h	19-06-02
0.6.2_BugFix/src/main/java/Main.java	Dead store to swUI in Main.main(String[])	Open	1h	19-06-02
0.6.2_BugFix/src/main/java/Main.java	Dead store to mgui in Main.main(String[])	Open	1h	19-06-02
0.6.2_BugFix/src/main/java/Main.java	Dead store to tkui in Main.main(String[])	Open	1h	19-06-02

Filters Clear All Filters

Display Mode
Issues Effort

Type Clear

- Bug 5
- Vulnerability 0
- Code Smell 44**

Severity

- Blocker 0
- Critical 0
- Major 1
- Minor 0
- Info 43**

Resolution

Status

Creation Date

Rule

Tag

Module

Directory

File

Assignee

Author

Language

- Dead store to timerui in Main.main(String[]) **Code Smell** Info Open Not assigned 1h effort Comment 3 minutes ago L19 style
- Dead store to rdgui in Main.main(String[]) **Code Smell** Info Open Not assigned 1h effort Comment 3 minutes ago L20 style
- Dead store to selectfunctionui in Main.main(String[]) **Code Smell** Info Open Not assigned 1h effort Comment 3 minutes ago L21 style
- Dead store to alarmui in Main.main(String[]) **Code Smell** Info Open Not assigned 1h effort Comment 3 minutes ago L22 style
- 19-06-02 Watch 0.6.2_BugFix/src/main/java/RandomDirectionGenerator.java
- Unread public/protected field: RandomDirectionGenerator.funcNum **Code Smell** Info Open Not assigned 30min effort Comment 3 minutes ago L13 style
- 19-06-02 Watch 0.6.2_BugFix/src/main/java/RandomDirectionGeneratorUI.java
- Method RandomDirectionGeneratorUI\$.actionPerformed(ActionEvent) seems to be useless **Code Smell** Info Open Not assigned 30min effort Comment 3 minutes ago L24 style
- Method RandomDirectionGeneratorUI\$.actionPerformed(ActionEvent) seems to be useless **Code Smell** Info Open Not assigned 30min effort Comment 3 minutes ago L64 style
- 19-06-02 Watch 0.6.2_BugFix/src/main/java/RandomNumberGenerator.java
- Unread public/protected field: RandomNumberGenerator.funcNum **Code Smell** Info Open Not assigned 30min effort Comment 3 minutes ago L16 style
- Switch statement found in RandomNumberGenerator.setScopePart(int) where default case is missing **Code Smell** Info Open Not assigned 1h effort Comment 3 minutes ago L34 style
- Switch statement found in RandomNumberGenerator.saveScope() where default case is missing **Code Smell** Info Open Not assigned 1h effort Comment 3 minutes ago L120 style

Filters Clear All Filters

Display Mode
Issues Effort

Type Clear

- Bug 5
- Vulnerability 0
- Code Smell 44**

Severity

- Blocker 0
- Critical 0
- Major 1
- Minor 0
- Info 43**

Resolution

Status

Creation Date

Rule

Tag

Module

Directory

File

Assignee

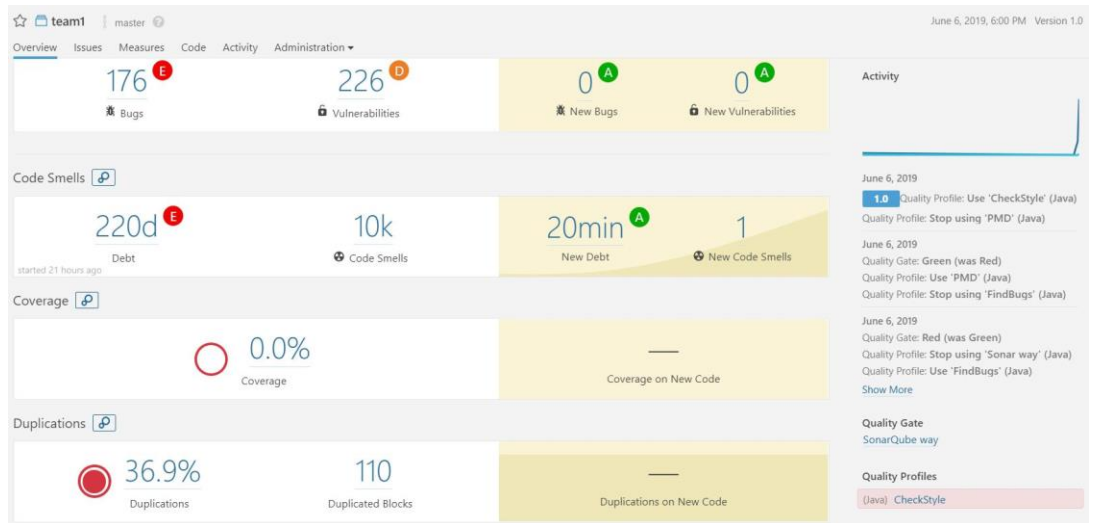
Author

Language

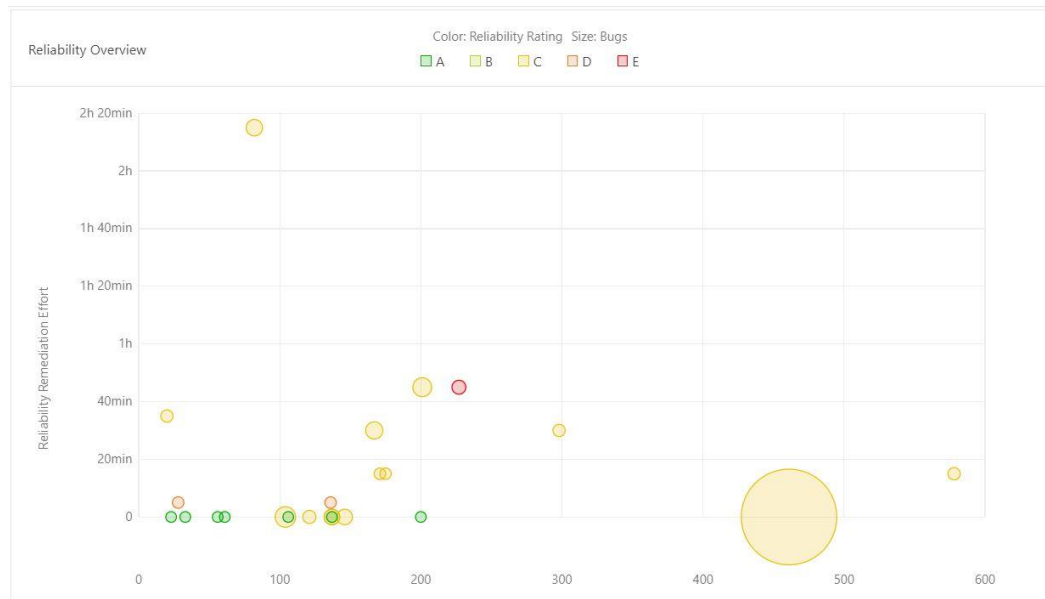
- Switch statement found in Stopwatch.displayLapSplit(Vector) where default case is missing **Code Smell** Info Open Not assigned 1h effort Comment 4 minutes ago L126 style
- 19-06-02 Watch 0.6.2_BugFix/src/main/java/TimeData.java
- Switch statement found in TimeData\$.run() where default case is missing **Code Smell** Info Open Not assigned 1h effort Comment 4 minutes ago L57 style
- Switch statement found in TimeData.saveTimePart(int, int) where default case is missing **Code Smell** Info Open Not assigned 1h effort Comment 4 minutes ago L186 style
- 19-06-02 Watch 0.6.2_BugFix/src/main/java/TimeKeeping.java
- Switch statement found in TimeKeeping.setTimePart(int) where default case is missing **Code Smell** Info Open Not assigned 1h effort Comment 4 minutes ago L86 style
- Switch statement found in TimeKeeping.southFinder(String, String, String, String) where default case is missing **Code Smell** Info Open Not assigned 1h effort Comment 4 minutes ago L242 style
- Useless condition: It's known that southHour != 12 at this point **Code Smell** Info Open Not assigned 15min effort Comment 4 minutes ago L524 style
- Switch statement found in TimeKeeping\$.run() where default case is missing **Code Smell** Info Open Not assigned 1h effort Comment 4 minutes ago L608 style
- 19-06-02 Watch 0.6.2_BugFix/src/main/java/TimeKeepingUI.java
- Switch statement found in TimeKeepingUI.showSet() where default case is missing **Code Smell** Info Open Not assigned 1h effort Comment 4 minutes ago L48 style
- Method TimeKeepingUI\$.actionPerformed(ActionEvent) seems to be useless **Code Smell** Info Open Not assigned 30min effort Comment 4 minutes ago L181 style
- 19-06-02 Watch 0.6.2_BugFix/src/main/java/Timer.java
- Switch statement found in Timer.setTimePart(int) where default case is missing **Code Smell** Info Open Not assigned 1h effort Comment 4 minutes ago L40 style

5. CheckStyle

A. Overall



B. Graph



C. Analysis Result

i. Bug & Vulnerability

team1 / 19-06-02 Watch 0.6.2_BugFix/src/main/java/Alarm.java

<input type="checkbox"/>	Make buzzer a static final constant or non-public and provide accessors if needed. ...	3 days ago	L14						10min effort	Comment	
<input type="checkbox"/>	Unread field: Alarm.funcNum ...	3 days ago	L16						30min effort	Comment	
<input type="checkbox"/>	Class Alarm defines fields that are used only as locals ...	3 days ago	L16							Comment	
<input type="checkbox"/>	Make alarm a static final constant or non-public and provide accessors if needed. ...	3 days ago	L17						10min effort	Comment	
<input type="checkbox"/>	Explicitly declare the visibility for "alist". ...	3 days ago	L20						5min effort	Comment	
<input type="checkbox"/>	Make sec a static final constant or non-public and provide accessors if needed. ...	3 days ago	L21						10min effort	Comment	
<input type="checkbox"/>	Make sec10 a static final constant or non-public and provide accessors if needed. ...	3 days ago	L22						10min effort	Comment	
<input type="checkbox"/>	Make min a static final constant or non-public and provide accessors if needed. ...	3 days ago	L23						10min effort	Comment	
<input type="checkbox"/>	Make min10 a static final constant or non-public and provide accessors if needed. ...	3 days ago	L24						10min effort	Comment	
<input type="checkbox"/>	Make hour a static final constant or non-public and provide accessors if needed. ...	3 days ago	L25						10min effort	Comment	
<input type="checkbox"/>	Make hour10 a static final constant or non-public and provide accessors if needed. ...	3 days ago	L26						10min effort	Comment	
<input type="checkbox"/>	Make part a static final constant or non-public and provide accessors if needed. ...	3 days ago	L27						10min effort	Comment	
<input type="checkbox"/>	Make ison a static final constant or non-public and provide accessors if needed. ...	3 days ago	L28						10min effort	Comment	

<input type="checkbox"/>	Make sun a static final constant or non-public and provide accessors if needed. ...	3 days ago	L29	🔗 👇
	🔒 Vulnerability 🟢 Minor 🔵 Open 👉 Not assigned 🕒 10min effort 🗨 Comment			🏷 cwe
<input type="checkbox"/>	Make mon a static final constant or non-public and provide accessors if needed. ...	3 days ago	L30	🔗 👇
	🔒 Vulnerability 🟢 Minor 🔵 Open 👉 Not assigned 🕒 10min effort 🗨 Comment			🏷 cwe
<input type="checkbox"/>	Make tue a static final constant or non-public and provide accessors if needed. ...	3 days ago	L31	🔗 👇
	🔒 Vulnerability 🟢 Minor 🔵 Open 👉 Not assigned 🕒 10min effort 🗨 Comment			🏷 cwe
<input type="checkbox"/>	Make wed a static final constant or non-public and provide accessors if needed. ...	3 days ago	L32	🔗 👇
	🔒 Vulnerability 🟢 Minor 🔵 Open 👉 Not assigned 🕒 10min effort 🗨 Comment			🏷 cwe
<input type="checkbox"/>	Make thu a static final constant or non-public and provide accessors if needed. ...	3 days ago	L33	🔗 👇
	🔒 Vulnerability 🟢 Minor 🔵 Open 👉 Not assigned 🕒 10min effort 🗨 Comment			🏷 cwe
<input type="checkbox"/>	Make fri a static final constant or non-public and provide accessors if needed. ...	3 days ago	L34	🔗 👇
	🔒 Vulnerability 🟢 Minor 🔵 Open 👉 Not assigned 🕒 10min effort 🗨 Comment			🏷 cwe
<input type="checkbox"/>	Make sat a static final constant or non-public and provide accessors if needed. ...	3 days ago	L35	🔗 👇
	🔒 Vulnerability 🟢 Minor 🔵 Open 👉 Not assigned 🕒 10min effort 🗨 Comment			🏷 cwe
<input type="checkbox"/>	Make alarmIndex a static final constant or non-public and provide accessors if needed. ...	3 days ago	L36	🔗 👇
	🔒 Vulnerability 🟢 Minor 🔵 Open 👉 Not assigned 🕒 10min effort 🗨 Comment			🏷 cwe
team1 / 19-06-02 Watch 0.6.2_BugFix/src/main/java/AlarmList.java				
<input type="checkbox"/>	Make alarm a static final constant or non-public and provide accessors if needed. ...	3 days ago	L8	🔗 👇
	🔒 Vulnerability 🟢 Minor 🔵 Open 👉 Not assigned 🕒 10min effort 🗨 Comment			🏷 cwe
<input type="checkbox"/>	Explicitly declare the visibility for "manageSnooze". ...	3 days ago	L9	🔗 👇
	🔒 Vulnerability 🟢 Minor 🔵 Open 👉 Not assigned 🕒 5min effort 🗨 Comment			🏷 No tags
<input type="checkbox"/>	Make index a static final constant or non-public and provide accessors if needed. ...	3 days ago	L10	🔗 👇
	🔒 Vulnerability 🟢 Minor 🔵 Open 👉 Not assigned 🕒 10min effort 🗨 Comment			🏷 cwe
<input type="checkbox"/>	Don't extend "Thread", since the "run" method is not overridden. ...	3 days ago	L26	🔗 👇
	🐛 Bug 🔴 Major 🔵 Open 👉 Not assigned 🕒 5min effort 🗨 Comment			🏷 multi-threading, pitfall
<input type="checkbox"/>	Unread field: AlarmList.manageSnooze ...	3 days ago	L26	🔗 👇
	🐛 Bug 🔴 Major 🔵 Open 👉 Not assigned 🕒 30min effort 🗨 Comment			🏷 performance
team1 / 19-06-02 Watch 0.6.2_BugFix/src/main/java/AlarmUI.java				
<input type="checkbox"/>	Explicitly declare the visibility for "f2slistener". ...	3 days ago	L84	🔗 👇
	🔒 Vulnerability 🟢 Minor 🔵 Open 👉 Not assigned 🕒 5min effort 🗨 Comment			🏷 No tags
<input type="checkbox"/>	Explicitly declare the visibility for "pressedTime". ...	3 days ago	L85	🔗 👇
	🔒 Vulnerability 🟢 Minor 🔵 Open 👉 Not assigned 🕒 5min effort 🗨 Comment			🏷 No tags
<input type="checkbox"/>	Explicitly declare the visibility for "timeClicked". ...	3 days ago	L86	🔗 👇
	🔒 Vulnerability 🟢 Minor 🔵 Open 👉 Not assigned 🕒 5min effort 🗨 Comment			🏷 No tags
<input type="checkbox"/>	Explicitly declare the visibility for "slistener". ...	3 days ago	L144	🔗 👇
	🔒 Vulnerability 🟢 Minor 🔵 Open 👉 Not assigned 🕒 5min effort 🗨 Comment			🏷 No tags
<input type="checkbox"/>	Explicitly declare the visibility for "mlistener". ...	3 days ago	L170	🔗 👇
	🔒 Vulnerability 🟢 Minor 🔵 Open 👉 Not assigned 🕒 5min effort 🗨 Comment			🏷 No tags
<input type="checkbox"/>	Explicitly declare the visibility for "r2slistener". ...	3 days ago	L181	🔗 👇
	🔒 Vulnerability 🟢 Minor 🔵 Open 👉 Not assigned 🕒 5min effort 🗨 Comment			🏷 No tags
<input type="checkbox"/>	Explicitly declare the visibility for "pressedTime". ...	3 days ago	L182	🔗 👇
	🔒 Vulnerability 🟢 Minor 🔵 Open 👉 Not assigned 🕒 5min effort 🗨 Comment			🏷 No tags
<input type="checkbox"/>	Explicitly declare the visibility for "timeClicked". ...	3 days ago	L183	🔗 👇
	🔒 Vulnerability 🟢 Minor 🔵 Open 👉 Not assigned 🕒 5min effort 🗨 Comment			🏷 No tags
team1 / 19-06-02 Watch 0.6.2_BugFix/src/main/java/Buzzer.java				
<input type="checkbox"/>	Unused field: Buzzer.duration ...	3 days ago	L1	🔗 👇
	🐛 Bug 🔴 Major 🔵 Open 👉 Not assigned 🕒 30min effort 🗨 Comment			🏷 performance
<input type="checkbox"/>	Unused field: Buzzer.interval ...	3 days ago	L1	🔗 👇
	🐛 Bug 🔴 Major 🔵 Open 👉 Not assigned 🕒 30min effort 🗨 Comment			🏷 performance
<input type="checkbox"/>	Make alist a static final constant or non-public and provide accessors if needed. ...	3 days ago	L10	🔗 👇
	🔒 Vulnerability 🟢 Minor 🔵 Open 👉 Not assigned 🕒 10min effort 🗨 Comment			🏷 cwe
<input type="checkbox"/>	Make on a static final constant or non-public and provide accessors if needed. ...	3 days ago	L12	🔗 👇
	🔒 Vulnerability 🟢 Minor 🔵 Open 👉 Not assigned 🕒 10min effort 🗨 Comment			🏷 cwe

<input type="checkbox"/>	Either re-interrupt this method or rethrow the "InterruptedException". ... Bug Major Open Not assigned 15min effort Comment	3 days ago L39	cwe, error-handling, multi-threading
<input type="checkbox"/>	Either re-interrupt this method or rethrow the "InterruptedException". ... Bug Major Open Not assigned 15min effort Comment	3 days ago L44	cwe, error-handling, multi-threading
<input type="checkbox"/>	Either re-interrupt this method or rethrow the "InterruptedException". ... Bug Major Open Not assigned 15min effort Comment	3 days ago L57	cwe, error-handling, multi-threading
<input type="checkbox"/>	Either re-interrupt this method or rethrow the "InterruptedException". ... Bug Major Open Not assigned 15min effort Comment	3 days ago L62	cwe, error-handling, multi-threading
<input type="checkbox"/>	Either re-interrupt this method or rethrow the "InterruptedException". ... Bug Major Open Not assigned 15min effort Comment	3 days ago L81	cwe, error-handling, multi-threading

team1 / 19-06-02 Watch 0.6.2_BugFix/src/main/java/FunctionList.java

<input type="checkbox"/>	Make alarm a static final constant or non-public and provide accessors if needed. ... Vulnerability Minor Open Not assigned 10min effort Comment	3 days ago L14	cwe
<input type="checkbox"/>	Make rdg a static final constant or non-public and provide accessors if needed. ... Vulnerability Minor Open Not assigned 10min effort Comment	3 days ago L15	cwe
<input type="checkbox"/>	Make rng a static final constant or non-public and provide accessors if needed. ... Vulnerability Minor Open Not assigned 10min effort Comment	3 days ago L16	cwe
<input type="checkbox"/>	Make timekeeping a static final constant or non-public and provide accessors if needed. ... Vulnerability Minor Open Not assigned 10min effort Comment	3 days ago L17	cwe
<input type="checkbox"/>	Make timer a static final constant or non-public and provide accessors if needed. ... Vulnerability Minor Open Not assigned 10min effort Comment	3 days ago L18	cwe
<input type="checkbox"/>	Make stopwatch a static final constant or non-public and provide accessors if needed. ... Vulnerability Minor Open Not assigned 10min effort Comment	3 days ago L19	cwe
<input type="checkbox"/>	Make functionon a static final constant or non-public and provide accessors if needed. ... Vulnerability Minor Open Not assigned 10min effort Comment	3 days ago L21	cwe

team1 / 19-06-02 Watch 0.6.2_BugFix/src/main/java/LapSplitList.java

<input type="checkbox"/>	Make nodeNum a static final constant or non-public and provide accessors if needed. ... Vulnerability Minor Open Not assigned 10min effort Comment	3 days ago L9	cwe
<input type="checkbox"/>	Make lns a static final constant or non-public and provide accessors if needed. ... Vulnerability Minor Open Not assigned 10min effort Comment	3 days ago L11	cwe
<input type="checkbox"/>	Method LapSplitList.storeLapSplit(Vector) converts String to boxed primitive using excessive boxing ... Bug Major Open Not assigned Comment	3 days ago L44	performance
<input type="checkbox"/>	Method LapSplitList.storeLapSplit(Vector) converts String to boxed primitive using excessive boxing ... Bug Major Open Not assigned Comment	3 days ago L49	performance
<input type="checkbox"/>	Method LapSplitList.storeLapSplit(Vector) converts String to boxed primitive using excessive boxing ... Bug Major Open Not assigned Comment	3 days ago L55	performance
<input type="checkbox"/>	Method LapSplitList.storeLapSplit(Vector) converts String to boxed primitive using excessive boxing ... Bug Major Open Not assigned Comment	3 days ago L56	performance
<input type="checkbox"/>	Method LapSplitList.storeLapSplit(Vector) converts String to boxed primitive using excessive boxing ... Bug Major Open Not assigned Comment	3 days ago L62	performance
<input type="checkbox"/>	Method LapSplitList.storeLapSplit(Vector) converts String to boxed primitive using excessive boxing ... Bug Major Open Not assigned Comment	3 days ago L63	performance
<input type="checkbox"/>	Method LapSplitList.storeLapSplit(Vector) converts String to boxed primitive using excessive boxing ... Bug Major Open Not assigned Comment	3 days ago L69	performance
<input type="checkbox"/>	Method LapSplitList.storeLapSplit(Vector) converts String to boxed primitive using excessive boxing ... Bug Major Open Not assigned Comment	3 days ago L70	performance
<input type="checkbox"/>	Method LapSplitList.storeLapSplit(Vector) converts String to boxed primitive using excessive boxing ... Bug Major Open Not assigned Comment	3 days ago L71	performance
<input type="checkbox"/>	Method LapSplitList.storeLapSplit(Vector) converts String to boxed primitive using excessive boxing ... Bug Major Open Not assigned Comment	3 days ago L77	performance
<input type="checkbox"/>	Method LapSplitList.storeLapSplit(Vector) converts String to boxed primitive using excessive boxing ... Bug Major Open Not assigned Comment	3 days ago L78	performance

ii. Code Smell

team1	
<input type="checkbox"/>	Add a 'package-info.java' file to document the '19-06-02 Watch 0.6.2_BugFix/src/main/java' package Code Smell ▼ Minor ▼ Open ▼ Not assigned ▼ 20min effort ▼ Comment 1 hour ago ▼ ▼ ▼ convention ▼
19-06-02 Watch 0.6.2_BugFix/src/main/java/Alarm.java	
<input type="checkbox"/>	Add or update the header of this file. Code Smell ▼ Blocker ▼ Open ▼ Not assigned ▼ 5min effort ▼ Comment 3 days ago ▼ ▼ ▼ No tags ▼
<input type="checkbox"/>	149 more lines of code need to be covered by tests to reach the minimum threshold of 65.0% lines coverage. Code Smell ▼ Major ▼ Open ▼ Not assigned ▼ 4h58min effort ▼ Comment 3 days ago ▼ ▼ ▼ bad-practice ▼
<input type="checkbox"/>	60 more comment lines need to be written to reach the minimum threshold of 25.0% comment density. Code Smell ▼ Major ▼ Open ▼ Not assigned ▼ 2h effort ▼ Comment 3 days ago ▼ ▼ ▼ convention ▼
<input type="checkbox"/>	2 duplicated blocks of code must be removed. Code Smell ▼ Major ▼ Open ▼ Not assigned ▼ 30min effort ▼ Comment 3 days ago ▼ ▼ ▼ pitfall ▼
<input type="checkbox"/>	Move this file to a named package. Code Smell ▼ Minor ▼ Open ▼ Not assigned ▼ 10min effort ▼ Comment 3 days ago ▼ ▼ ▼ convention ▼
<input type="checkbox"/>	Add a new line at the end of this file. Code Smell ▼ Minor ▼ Open ▼ Not assigned ▼ 1min effort ▼ Comment 3 days ago ▼ ▼ ▼ convention ▼
<input type="checkbox"/>	Remove this unused import 'java.awt.event.ActionEvent'. Code Smell ▼ Minor ▼ Open ▼ Not assigned ▼ 2min effort ▼ Comment 3 days ago ▼ L1 ▼ ▼ ▼ unused ▼
<input type="checkbox"/>	File does not end with a newline. Code Smell ▼ Minor ▼ Open ▼ Not assigned ▼ 2min effort ▼ Comment 3 days ago ▼ L1 ▼ ▼ ▼ No tags ▼
<input type="checkbox"/>	Missing package-info.java file. Code Smell ▼ Minor ▼ Open ▼ Not assigned ▼ 30min effort ▼ Comment 3 days ago ▼ L1 ▼ ▼ ▼ comment ▼
<input type="checkbox"/>	Avoid unused imports such as 'java.awt.event.ActionEvent'. Code Smell ▼ Info ▼ Open ▼ Not assigned ▼ 5min effort ▼ Comment 3 days ago ▼ L1 ▼ ▼ ▼ No tags ▼
<input type="checkbox"/>	Unused import - java.awt.event.ActionEvent. Code Smell ▼ Info ▼ Open ▼ Not assigned ▼ 2min effort ▼ Comment 3 days ago ▼ L1 ▼ ▼ ▼ No tags ▼
<input type="checkbox"/>	Remove this unused import 'java.awt.event.ActionListener'. Code Smell ▼ Minor ▼ Open ▼ Not assigned ▼ 2min effort ▼ Comment 3 days ago ▼ L2 ▼ ▼ ▼ unused ▼
<input type="checkbox"/>	Avoid unused imports such as 'java.awt.event.ActionListener'. Code Smell ▼ Info ▼ Open ▼ Not assigned ▼ 5min effort ▼ Comment 3 days ago ▼ L2 ▼ ▼ ▼ No tags ▼
<input type="checkbox"/>	Unused import - java.awt.event.ActionListener. Code Smell ▼ Info ▼ Open ▼ Not assigned ▼ 2min effort ▼ Comment 3 days ago ▼ L2 ▼ ▼ ▼ No tags ▼
<input type="checkbox"/>	Explicitly import the specific classes needed. Code Smell ▼ Critical ▼ Open ▼ Not assigned ▼ 5min effort ▼ Comment 3 days ago ▼ L3 ▼ ▼ ▼ pitfall ▼
<input type="checkbox"/>	Using the "*" form of import should be avoided - java.util.*. Code Smell ▼ Minor ▼ Open ▼ Not assigned ▼ 15min effort ▼ Comment 3 days ago ▼ L3 ▼ ▼ ▼ No tags ▼
<input type="checkbox"/>	All classes and interfaces must belong to a named package Code Smell ▼ Major ▼ Open ▼ Not assigned ▼ 10min effort ▼ Comment 3 days ago ▼ L345 ▼ ▼ ▼ No tags ▼
<input type="checkbox"/>	Possible God Class (WMC=70, ATFD=9, TCC=31.818%) Code Smell ▼ Major ▼ Open ▼ Not assigned ▼ 2h effort ▼ Comment 3 days ago ▼ L345 ▼ ▼ ▼ No tags ▼
<input type="checkbox"/>	The class 'Alarm' has a Modified Cyclomatic Complexity of 3 (Highest = 20). Code Smell ▼ Major ▼ Open ▼ Not assigned ▼ 1h effort ▼ Comment 3 days ago ▼ L345 ▼ ▼ ▼ size ▼
<input type="checkbox"/>	The class 'Alarm' has a Standard Cyclomatic Complexity of 5 (Highest = 46). Code Smell ▼ Major ▼ Open ▼ Not assigned ▼ 1h effort ▼ Comment 3 days ago ▼ L345 ▼ ▼ ▼ size ▼
<input type="checkbox"/>	Too many fields Code Smell ▼ Major ▼ Open ▼ Not assigned ▼ 1h effort ▼ Comment 3 days ago ▼ L345 ▼ ▼ ▼ size ▼
<input type="checkbox"/>	Refactor this class so it has no more than 20 fields, rather than the 21 it currently has. Code Smell ▼ Major ▼ Open ▼ Not assigned ▼ 1h effort ▼ Comment 3 days ago ▼ L5 ▼ ▼ ▼ brain-overload ▼
<input type="checkbox"/>	Header comments are required Code Smell ▼ Minor ▼ Open ▼ Not assigned ▼ 5min effort ▼ Comment 3 days ago ▼ L345 ▼ ▼ ▼ No tags ▼

<input type="checkbox"/>	Move this left curly brace to the beginning of next line of code. ⁺⁺⁺	3 days ago	L5			Code Smell Minor Open Not assigned 1min effort Comment	convention
<input type="checkbox"/>	Type Javadoc comment is missing null tag. ⁺⁺⁺	3 days ago	L5			Code Smell Minor Open Not assigned 30min effort Comment	No tags
<input type="checkbox"/>	Parameter 'view' is not assigned and could be declared final ⁺⁺⁺	3 days ago	L7			Code Smell Minor Open Not assigned 10min effort Comment	No tags
<input type="checkbox"/>	Public method and constructor comments are required ⁺⁺⁺	3 days ago	L11			Code Smell Minor Open Not assigned 5min effort Comment	No tags
<input type="checkbox"/>	Parameter 'alist' is not assigned and could be declared final ⁺⁺⁺	3 days ago	L7			Code Smell Minor Open Not assigned 10min effort Comment	No tags
<input type="checkbox"/>	Parameter 'buzzer' is not assigned and could be declared final ⁺⁺⁺	3 days ago	L7			Code Smell Minor Open Not assigned 10min effort Comment	No tags
<input type="checkbox"/>	Move this left curly brace to the beginning of next line of code. ⁺⁺⁺	3 days ago	L7			Code Smell Minor Open Not assigned 1min effort Comment	convention
<input type="checkbox"/>	Make this line start after 2 spaces to indent the code consistently. ⁺⁺⁺	3 days ago	L7			Code Smell Minor Open Not assigned 1min effort Comment	style
<input type="checkbox"/>	Make this line start after 4 spaces to indent the code consistently. ⁺⁺⁺	3 days ago	L8			Code Smell Minor Open Not assigned 1min effort Comment	style
<input type="checkbox"/>	Found non-transient, non-static member. Please mark as transient or provide accessors. ⁺⁺⁺	3 days ago	L14			Code Smell Major Open Not assigned 30min effort Comment	No tags
<input type="checkbox"/>	Variable 'buzzer' must be private and have accessor methods. ⁺⁺⁺	3 days ago	L14			Code Smell Major Open Not assigned 10min effort Comment	No tags
<input type="checkbox"/>	Field comments are required ⁺⁺⁺	3 days ago	L14			Code Smell Minor Open Not assigned 5min effort Comment	No tags
<input type="checkbox"/>	Fields should be declared at the top of the class, before any method declarations, constructors, initializers or inner classes. ⁺⁺⁺	3 days ago	L14				

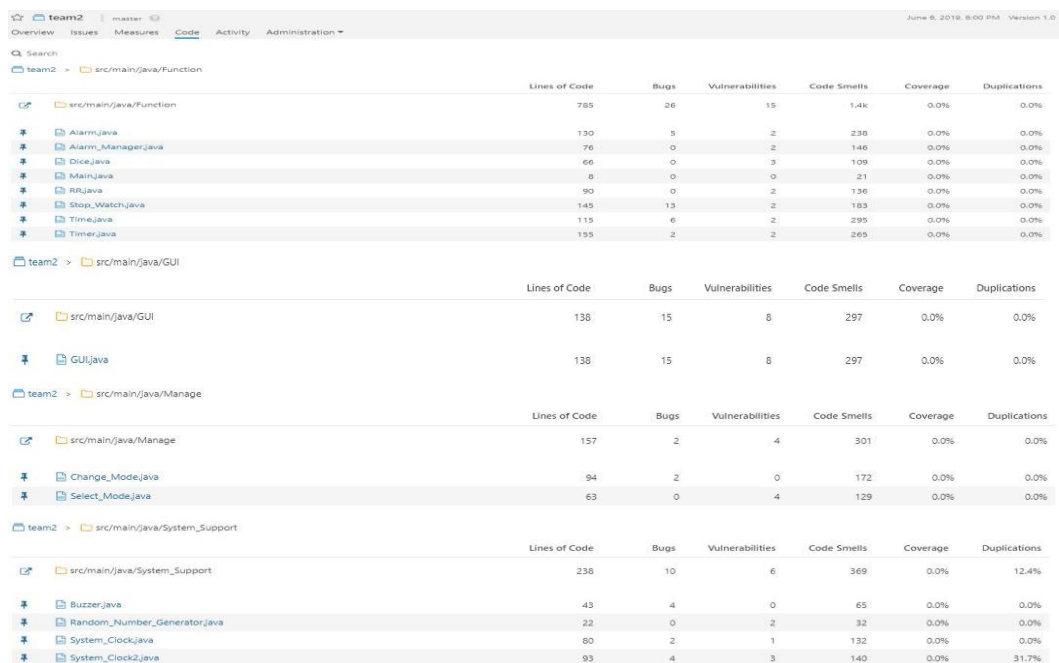
[SMA T2]

1. SonarQube

A. URL

- i. <http://ec2-3-14-135-144.us-east-2.compute.amazonaws.com:9000/dashboard?id=team2>

B. Code



The screenshot shows the SonarQube interface for project 'team2'. The 'Code' view displays a table of code quality metrics for various Java files. The table has columns for Lines of Code, Bugs, Vulnerabilities, Code Smells, Coverage, and Duplications. The data is as follows:

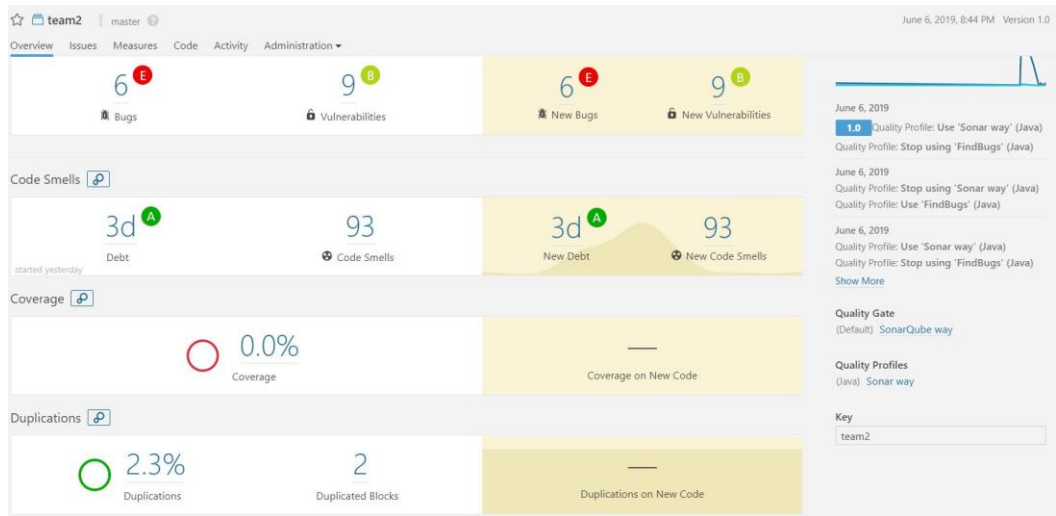
Path	Lines of Code	Bugs	Vulnerabilities	Code Smells	Coverage	Duplications
src/main/java/Function	785	26	15	14k	0.0%	0.0%
Alarm.java	130	5	2	238	0.0%	0.0%
Alarm_Manager.java	76	0	2	146	0.0%	0.0%
Dice.java	66	0	3	109	0.0%	0.0%
Main.java	8	0	0	21	0.0%	0.0%
RR.java	90	0	2	136	0.0%	0.0%
Stop_Watch.java	145	13	2	183	0.0%	0.0%
Time.java	115	6	2	295	0.0%	0.0%
Timer.java	155	2	2	265	0.0%	0.0%
src/main/java/GUI	138	15	8	297	0.0%	0.0%
GUI.java	138	15	8	297	0.0%	0.0%
src/main/java/Manage	157	2	4	301	0.0%	0.0%
Change_Mode.java	94	2	0	172	0.0%	0.0%
Select_Mode.java	63	0	4	129	0.0%	0.0%
src/main/java/System_Support	238	10	6	369	0.0%	12.4%
Buzzer.java	43	4	0	65	0.0%	0.0%
Random_Number_Generator.java	22	0	2	32	0.0%	0.0%
System_Clock.java	80	2	1	132	0.0%	0.0%
System_Clock2.java	93	4	3	140	0.0%	31.7%

C. Quality Profiles

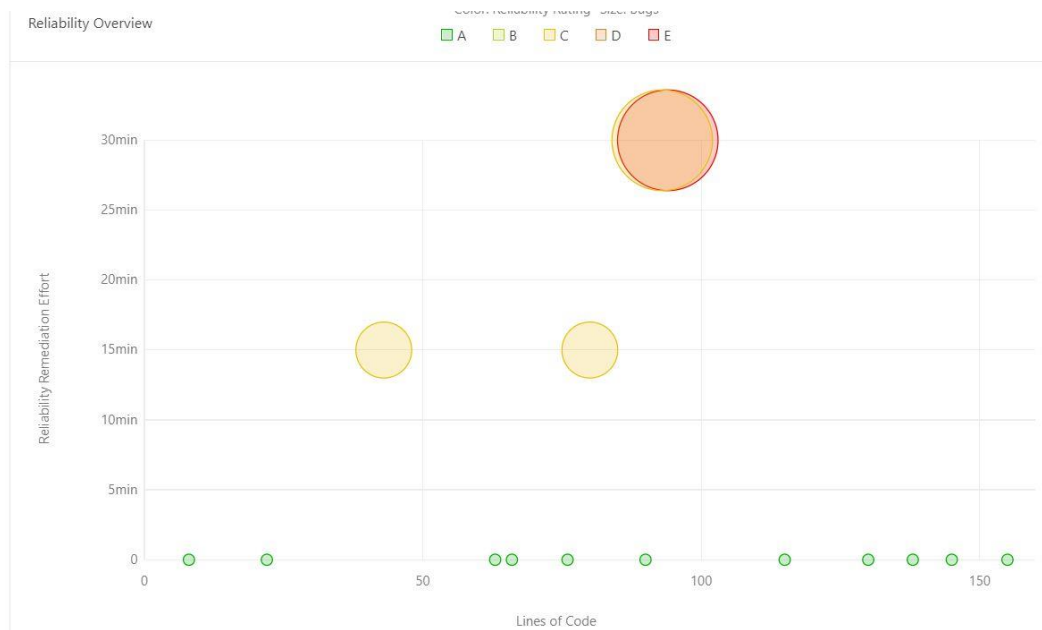
- i. Sonar way
- ii. PMD
- iii. FindBugs
- iv. CheckStyle

2. Sonar way

A. Overall



B. Graph



C. Analysis Result

i. Bug & Vulnerability

The screenshot shows a Jira Issues page for a project named 'team2'. The page displays a list of 15 issues, categorized by type and severity. The left sidebar provides filters for 'Type' and 'Severity'. The main content area shows the following issues:

Issue ID	Type	Severity	Status	Effort	Resolution
L16	Vulnerability	Minor	Open	10min	Not assigned
L17	Vulnerability	Minor	Open	10min	Not assigned
L19	Vulnerability	Minor	Open	10min	Not assigned
L20	Vulnerability	Minor	Open	10min	Not assigned
L94	Bug	Blocker	Open	15min	Not assigned
L70	Bug	Major	Open	15min	Not assigned
L48	Bug	Major	Open	15min	Not assigned
L71	Bug	Major	Open	15min	Not assigned
L72	Vulnerability	Minor	Open	10min	Not assigned
L9	Vulnerability	Minor	Open	10min	Not assigned
L50	Bug	Major	Open	15min	Not assigned
L51	Vulnerability	Minor	Open	10min	Not assigned
L78	Bug	Major	Open	15min	Not assigned
L79	Vulnerability	Minor	Open	10min	Not assigned

ii. Code Smell

The screenshot displays the SonarQube interface for a project named 'team2'. The main view shows a list of Code Smell issues. The left sidebar contains filters and a display mode selector. The main area lists issues with their descriptions, severity, effort, and status.

Filters:

- Display Mode: Issues (selected), Effort
- Type: Code Smell (93)
- Severity: Blocker (1), Critical (15), Major (16), Minor (61), Info (0)

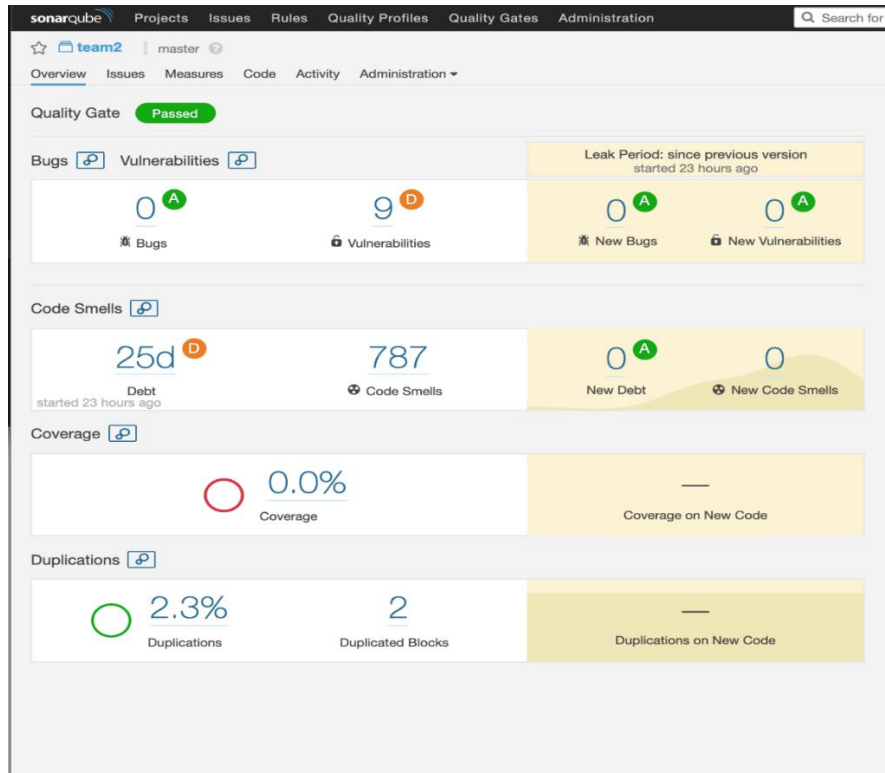
Issues:

- src/main/java/Function/Alarm.java**
 - 1. Rename this package name to match the regular expression `^[a-z](\.[a-z][a-z0-9_]*)?$`. (Code Smell, Minor, Open, Not assigned, 10min effort, Comment, 10 minutes ago, L1, convention)
 - 2. Remove the "inform" field and declare it as a local variable in the relevant methods. (Code Smell, Minor, Open, Not assigned, 5min effort, Comment, 10 minutes ago, L7, pitfall)
 - 3. Remove the "startTime" field and declare it as a local variable in the relevant methods. (Code Smell, Minor, Open, Not assigned, 5min effort, Comment, 10 minutes ago, L10, pitfall)
 - 4. Remove the "gapTime" field and declare it as a local variable in the relevant methods. (Code Smell, Minor, Open, Not assigned, 5min effort, Comment, 10 minutes ago, L11, pitfall)
 - 5. Remove the "thread" field and declare it as a local variable in the relevant methods. (Code Smell, Minor, Open, Not assigned, 5min effort, Comment, 10 minutes ago, L13, pitfall)
 - 6. Move the array designator from the variable to the type. (Code Smell, Minor, Open, Not assigned, 5min effort, Comment, 10 minutes ago, L33, convention)
 - 7. Declare "tmp2" on a separate line. (Code Smell, Minor, Open, Not assigned, 2min effort, Comment, 10 minutes ago, L34, based-on-misra, cert, convention, misra)
 - 8. Declare "tmp" on a separate line. (Code Smell, Minor, Open, Not assigned, 2min effort, Comment, 10 minutes ago, L34, based-on-misra, cert, convention, misra)
 - 9. Refactor this method to reduce its Cognitive Complexity from 28 to the 15 allowed. (Code Smell, Critical, Open, Not assigned, 18min effort, Comment, 10 minutes ago, L65, brain-overload)
 - 10. This block of commented-out lines of code should be removed. (Code Smell, Major, Open, Not assigned, 5min effort, Comment, 10 minutes ago, L115, based-on-misra, misra, unused)
 - 11. This block of commented-out lines of code should be removed. (Code Smell, Major, Open, Not assigned, 5min effort, Comment, 10 minutes ago, L124, based-on-misra, misra, unused)
 - 12. Rename this method name to match the regular expression `^[a-z][a-zA-Z0-9]*$`. (Code Smell, Minor, Open, Not assigned, 5min effort, Comment, 10 minutes ago, L139, convention)
- src/main/java/Function/Alarm_Manager.java**
 - 13. Rename this package name to match the regular expression `^[a-z](\.[a-z][a-z0-9_]*)?$`. (Code Smell, Minor, Open, Not assigned, 10min effort, Comment, 10 minutes ago, L1, convention)
 - 14. Rename this class name to match the regular expression `^[A-Z][a-zA-Z0-9]*$`. (Code Smell, Minor, Open, Not assigned, 5min effort, Comment, 10 minutes ago, L3, convention)
- Move the array designator from the variable to the type.** (Code Smell, Minor, Open, Not assigned, 5min effort, Comment, 10 minutes ago, L4, convention)
- Rename this method name to match the regular expression `^[a-z][a-zA-Z0-9]*$`.** (Code Smell, Minor, Open, Not assigned, 5min effort, Comment, 10 minutes ago, L52, convention)
- src/main/java/Function/Dice.java**
 - 15. Rename this package name to match the regular expression `^[a-z](\.[a-z][a-z0-9_]*)?$`. (Code Smell, Minor, Open, Not assigned, 10min effort, Comment, 10 minutes ago, L1, convention)
- src/main/java/Function/Main.java**
 - 16. Rename this package name to match the regular expression `^[a-z](\.[a-z][a-z0-9_]*)?$`. (Code Smell, Minor, Open, Not assigned, 10min effort, Comment, 10 minutes ago, L1, convention)
- src/main/java/Function/RR.java**
 - 17. Rename this package name to match the regular expression `^[a-z](\.[a-z][a-z0-9_]*)?$`. (Code Smell, Minor, Open, Not assigned, 10min effort, Comment, 10 minutes ago, L1, convention)
 - 18. Rename this method name to match the regular expression `^[a-z][a-zA-Z0-9]*$`. (Code Smell, Minor, Open, Not assigned, 5min effort, Comment, 10 minutes ago, L53, convention)
- src/main/java/Function/Stop_Watch.java**
 - 19. Rename this package name to match the regular expression `^[a-z](\.[a-z][a-z0-9_]*)?$`. (Code Smell, Minor, Open, Not assigned, 10min effort, Comment, 10 minutes ago, L1, convention)
 - 20. Rename this class name to match the regular expression `^[A-Z][a-zA-Z0-9]*$`. (Code Smell, Minor, Open, Not assigned, 5min effort, Comment, 10 minutes ago, L4, convention)
 - 21. Rename this method name to match the regular expression `^[a-z][a-zA-Z0-9]*$`. (Code Smell, Minor, Open, Not assigned, 5min effort, Comment, 10 minutes ago, L29, convention)
 - 22. Move the array designator from the variable to the type. (Code Smell, Minor, Open, Not assigned, 5min effort, Comment, 10 minutes ago, L55, convention)
- src/main/java/Function/Time.java**
 - 23. Rename this package name to match the regular expression `^[a-z](\.[a-z][a-z0-9_]*)?$`. (Code Smell, Minor, Open, Not assigned, 10min effort, Comment, 10 minutes ago, L1, convention)
 - 24. Rename this field "system_clock" to match the regular expression `^[a-z][a-zA-Z0-9]*$`. (Code Smell, Minor, Open, Not assigned, 2min effort, Comment, 10 minutes ago, L4, convention)

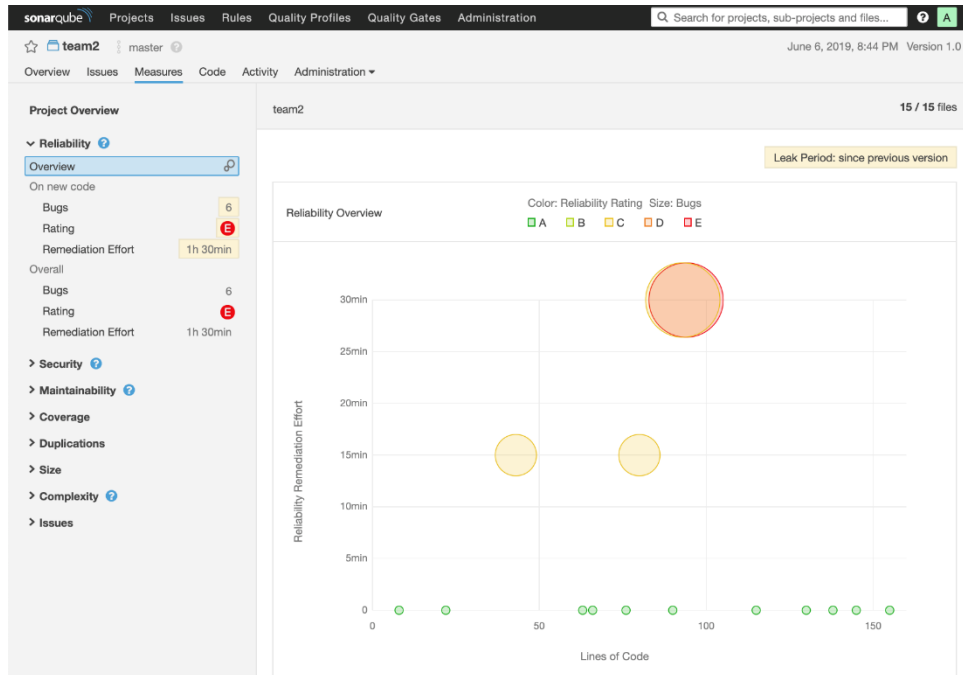
<input type="checkbox"/>	Refactor this method to reduce its Cognitive Complexity from 25 to the 15 allowed. ***	10 minutes ago	L60	20	
	Code Smell Critical Open Not assigned 5min effort Comment				
<input type="checkbox"/>	This block of commented-out lines of code should be removed. ***	10 minutes ago	L62		
	Code Smell Major Open Not assigned 5min effort Comment				based-on-misra, misra, unused
<input type="checkbox"/>	This block of commented-out lines of code should be removed. ***	10 minutes ago	L67		
	Code Smell Major Open Not assigned 5min effort Comment				based-on-misra, misra, unused
<input type="checkbox"/>	This block of commented-out lines of code should be removed. ***	10 minutes ago	L72		
	Code Smell Major Open Not assigned 5min effort Comment				based-on-misra, misra, unused
<input type="checkbox"/>	This block of commented-out lines of code should be removed. ***	10 minutes ago	L77		
	Code Smell Major Open Not assigned 5min effort Comment				based-on-misra, misra, unused
<input type="checkbox"/>	This block of commented-out lines of code should be removed. ***	10 minutes ago	L82		
	Code Smell Major Open Not assigned 5min effort Comment				based-on-misra, misra, unused
<input type="checkbox"/>	Rename this method name to match the regular expression <code>^[a-z][a-zA-Z0-9]*\$</code> . ***	10 minutes ago	L112		
	Code Smell Minor Open Not assigned 5min effort Comment				
<input type="checkbox"/>	Rename this method name to match the regular expression <code>^[a-z][a-zA-Z0-9]*\$</code> . ***	10 minutes ago	L115		
	Code Smell Minor Open Not assigned 5min effort Comment				
src/main/java/Function/Timer.java					
<input type="checkbox"/>	Rename this package name to match the regular expression <code>^[a-z]+(\.[a-z_][a-z0-9]*)*\$</code> . ***	10 minutes ago	L1		
	Code Smell Minor Open Not assigned 10min effort Comment				
<input type="checkbox"/>	Remove the "t" field and declare it as a local variable in the relevant methods. ***	10 minutes ago	L13		
	Code Smell Minor Open Not assigned 5min effort Comment				
<input type="checkbox"/>	Rename this method name to match the regular expression <code>^[a-z][a-zA-Z0-9]*\$</code> . ***	10 minutes ago	L85		
	Code Smell Minor Open Not assigned 5min effort Comment				
<input type="checkbox"/>	Rename this method name to match the regular expression <code>^[a-z][a-zA-Z0-9]*\$</code> . ***	10 minutes ago	L88		
	Code Smell Minor Open Not assigned 5min effort Comment				
<input type="checkbox"/>	Rename this method name to match the regular expression <code>^[a-z][a-zA-Z0-9]*\$</code> . ***	10 minutes ago	L116		
	Code Smell Minor Open Not assigned 5min effort Comment				
<input type="checkbox"/>	Rename this method name to match the regular expression <code>^[a-z][a-zA-Z0-9]*\$</code> . ***	10 minutes ago	L134		
	Code Smell Minor Open Not assigned 5min effort Comment				

3. PMD

A. Overall



B. Graph



C. Analysis Result

i. Bug & Vulnerability

The screenshot displays the SonarQube web interface for a project named 'team2'. The top navigation bar includes 'Projects', 'Issues', 'Rules', 'Quality Profiles', 'Quality Gates', and 'Administration'. A search bar is present on the right. The main content area shows a list of 9 issues, all of which are vulnerabilities. The left sidebar contains a 'Filters' section with a 'Clear All Filters' button and a 'Display Mode' section with 'Issues' selected. The 'Type' filter is set to 'Vulnerability' with a count of 9. The 'Severity' filter shows 9 Critical issues. The list of issues includes:

- src/main/java/Function/Alarm.java: Returning 'inform' may expose an internal array. Critical, 11 days ago, L29.
- src/main/java/Function/Alarm_Manager.java: Returning 'dis' may expose an internal array. Critical, 10 days ago, L80.
- src/main/java/Function/Dice.java: Returning 'dis' may expose an internal array. Critical, 10 days ago, L66.
- src/main/java/Function/RR.java: Returning 'dis' may expose an internal array. Critical, 11 days ago, L95.
- src/main/java/Function/Stop_Watch.java: Returning 'dis' may expose an internal array. Critical, 11 days ago, L142.
- src/main/java/Function/Time.java: Returning 'dis' may expose an internal array. Critical, 11 days ago, L110.
- src/main/java/Function/Timer.java: Returning 'dis' may expose an internal array. Critical, 11 days ago, L158.
- src/main/java/Manage/Select_Mode.java: Returning 'dis' may expose an internal array. Critical, 11 days ago, L58.
- src/main/java/Manage/Select_Mode.java: Returning 'mode' may expose an internal array. Critical, 2 days ago, L67.

At the bottom of the list, it indicates '9 of 9 shown'.

ii. Code Smell

The screenshot shows the SonarQube interface for a project named 'team2'. The left sidebar contains filters and display mode options. The main area displays a list of code smells for the file 'src/main/java/Function/Alarm.java'. The list includes items such as 'Package name contains upper case characters', 'The class 'Alarm' has a Modified Cyclomatic Complexity of 2 (Highest = 11)', and 'Header comments are required'. Each item shows its severity, effort, and status.

Issue	Severity	Effort	Status	Created
Package name contains upper case characters	Major	10min	Open	11 days ago
The class 'Alarm' has a Modified Cyclomatic Complexity of 2 (Highest = 11)	Major	1h	Open	2 days ago
The class 'Alarm' has a Standard Cyclomatic Complexity of 2 (Highest = 11)	Major	1h	Open	2 days ago
Header comments are required	Minor	5min	Open	2 days ago
Found non-transient, non-static member. Please mark as transient or provide accessors.	Major	30min	Open	11 days ago
Field comments are required	Minor	5min	Open	11 days ago
Found non-transient, non-static member. Please mark as transient or provide accessors.	Major	30min	Open	11 days ago
Field comments are required	Minor	5min	Open	11 days ago
Found non-transient, non-static member. Please mark as transient or provide accessors.	Major	30min	Open	11 days ago
Field comments are required	Minor	5min	Open	11 days ago
Found non-transient, non-static member. Please mark as transient or provide accessors.	Major	30min	Open	11 days ago
Field comments are required	Minor	5min	Open	11 days ago
Perhaps 'inform' could be replaced by a local variable.	Minor	10min	Open	11 days ago

The screenshot shows the SonarQube interface for a project named 'team2'. The left sidebar contains filters and display mode options. The main area displays a list of code smells for the file 'src/main/java/Function/Alarm.java'. The list includes items such as 'Avoid variables with short names like t', 'Found non-transient, non-static member. Please mark as transient or provide accessors.', and 'Private field 't' could be made final; it is only initialized in the declaration or constructor.'. Each item shows its severity, effort, and status.

Issue	Severity	Effort	Status	Created
Avoid variables with short names like t	Major	10min	Open	11 days ago
Found non-transient, non-static member. Please mark as transient or provide accessors.	Major	30min	Open	11 days ago
Private field 't' could be made final; it is only initialized in the declaration or constructor.	Major	10min	Open	11 days ago
Field comments are required	Minor	5min	Open	11 days ago
Found non-transient, non-static member. Please mark as transient or provide accessors.	Major	30min	Open	11 days ago
Field comments are required	Minor	5min	Open	11 days ago
Found non-transient, non-static member. Please mark as transient or provide accessors.	Major	30min	Open	11 days ago
Field comments are required	Minor	5min	Open	11 days ago
Found non-transient, non-static member. Please mark as transient or provide accessors.	Major	30min	Open	11 days ago
Field comments are required	Minor	5min	Open	11 days ago
Avoid variables with short names like sc	Major	10min	Open	11 days ago
Found non-transient, non-static member. Please mark as transient or provide accessors.	Major	30min	Open	11 days ago
Field comments are required	Minor	5min	Open	11 days ago
Found non-transient, non-static member. Please mark as transient or provide accessors.	Major	30min	Open	11 days ago
To be compliant to J2EE, a webapp should not use any thread.	Major	1h	Open	11 days ago
Field comments are required	Minor	5min	Open	11 days ago

sonarcube Projects Issues Rules Quality Profiles Quality Gates Administration

team2 master June 6, 2019, 7:22 PM Version 1.0

Overview Issues Measures Code Activity Administration

My Issues All Bulk Change 1 / 787 issues

Filters [Clear All Filters](#)

Display Mode Issues Effort

Type [Clear](#)

- Bug 0
- Vulnerability 9
- Code Smell 787

Severity

- Blocker 0
- Minor 281
- Critical 2
- Info 7
- Major 497

Resolution

Status

Creation Date

Rule

Tag

Module

Directory

File

Assignee

Author

Language

Field comments are required 11 days ago L14

Found non-transient, non-static member. Please mark as transient or provide accessors. 11 days ago L15

Field comments are required 11 days ago L15

Avoid variables with short names like t 11 days ago L17

Parameter 't' is not assigned and could be declared final 11 days ago L17

Public method and constructor comments are required 11 days ago L26

Assigning an Object to null is a code smell. Consider refactoring. 11 days ago L25

Avoid variables with short names like t1 11 days ago L31

Avoid variables with short names like t2 11 days ago L31

Consider using varargs for methods or constructors which take an array the last parameter. 11 days ago L31

Parameter 't1' is not assigned and could be declared final 11 days ago L31

Parameter 't2' is not assigned and could be declared final 11 days ago L31

Found 'DD'-anomaly for variable 'ret' (lines '33'-'39'). 11 days ago L39

Use one line for each declaration, it enhances code readability. 11 days ago L34

sonarcube Projects Issues Rules Quality Profiles Quality Gates Administration

team2 master June 6, 2019, 7:22 PM Version 1.0

Overview Issues Measures Code Activity Administration

My Issues All Bulk Change 1 / 787 issues

Filters [Clear All Filters](#)

Display Mode Issues Effort

Type [Clear](#)

- Bug 0
- Vulnerability 9
- Code Smell 787

Severity

- Blocker 0
- Minor 281
- Critical 2
- Info 7
- Major 497

Resolution

Status

Creation Date

Rule

Tag

Module

Directory

File

Assignee

Author

Language

Avoid using if...else statements without curly braces 11 days ago L37

Avoid using if...else statements without curly braces 11 days ago L38

Useless parentheses. 11 days ago L38

Found 'DD'-anomaly for variable 'ret' (lines '39'-'41'). 11 days ago L41

Found 'DD'-anomaly for variable 'ret' (lines '41'-'43'). 11 days ago L43

Public method and constructor comments are required 11 days ago L65

Avoid using Literals in Conditional Statements 11 days ago L48

Assigning an Object to null is a code smell. Consider refactoring. 11 days ago L53

To be compliant to JZEE, a webapp should not use any thread. 11 days ago L62

The method 'changeAlarm' has a Modified Cyclomatic Complexity of 11. 4 days ago L113

The method 'changeAlarm' has a Standard Cyclomatic Complexity of 11. 4 days ago L113

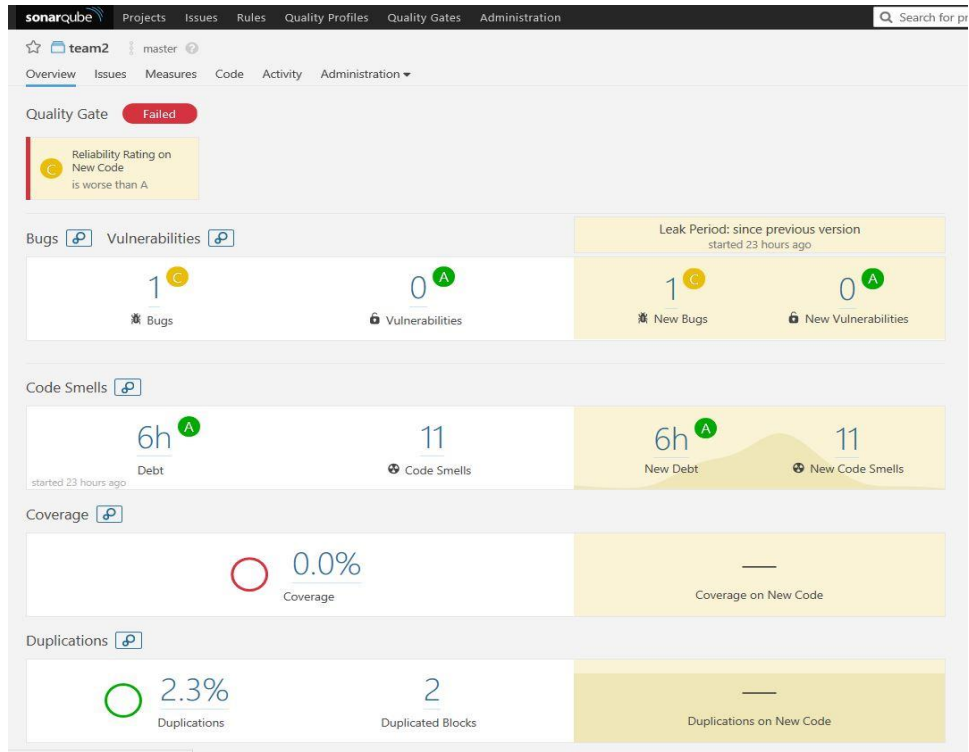
The method 'changeAlarm(int)' has a cyclomatic complexity of 11. 4 days ago L113

Parameter 'check' is not assigned and could be declared final 4 days ago L66

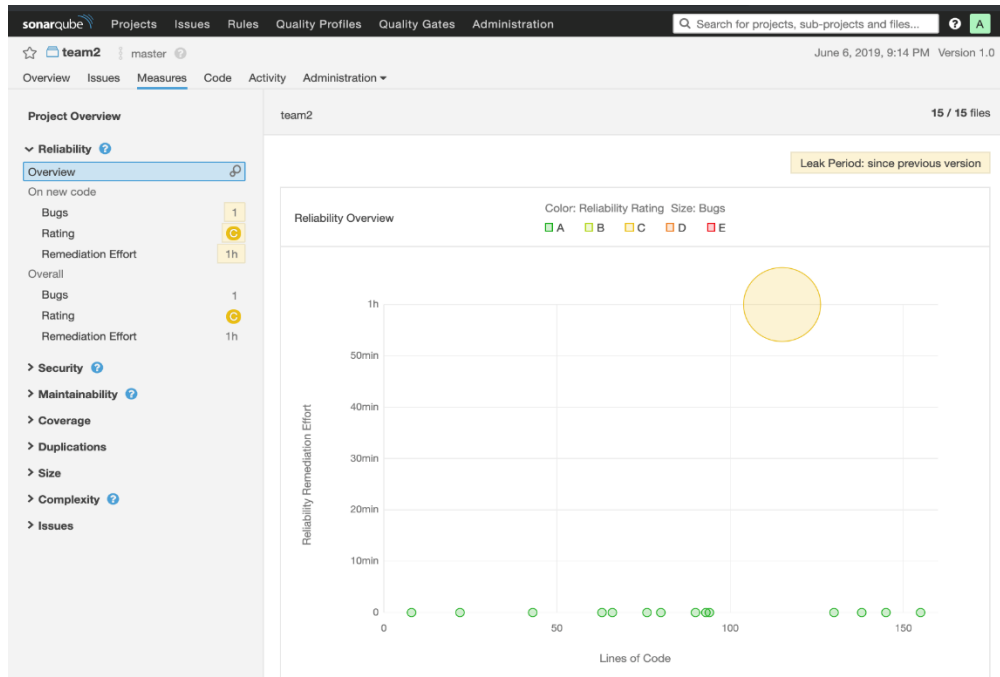
Public method and constructor comments are required 4 days ago L113

4. FindBugs

A. Overall



B. Graph



C. Analysis Result

i. Bug & Vulnerability

The screenshot shows a bug report for the file `src/main/java/Function/Time.java`. The bug is titled "new Function.Time() invokes Thread.start()" and is classified as a "Bug" with a severity of "Major". It is currently "Open" and "Not assigned", with an effort of "1h". The bug was reported "6 minutes ago" and is located at line "L18". The issue is related to "multi-threading". The left sidebar shows filters for "Type" with "Bug" selected (1 item) and "Code Smell" (11 items).

ii. Code Smell

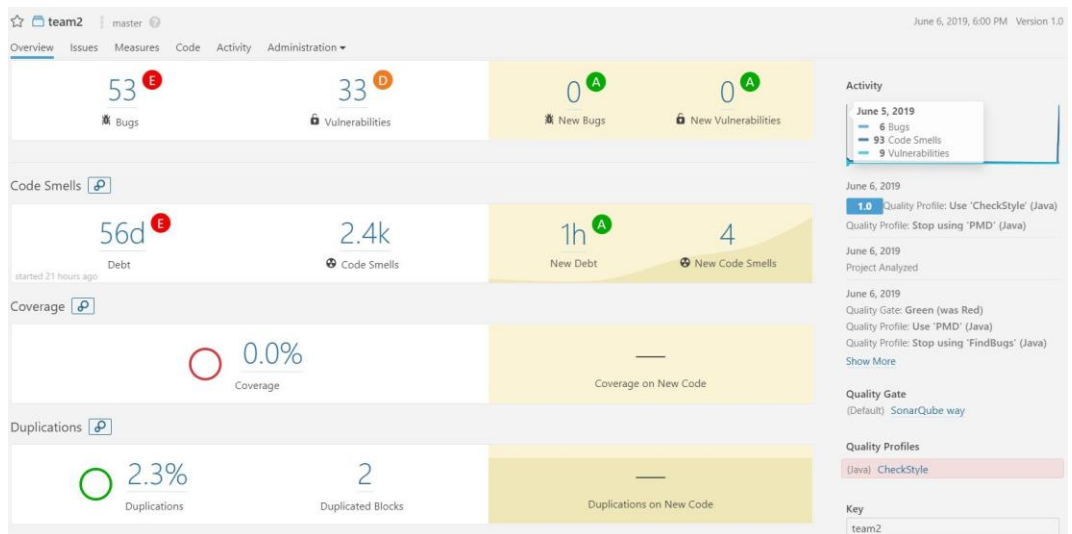
The screenshot displays a list of code smells across various files. The left sidebar shows filters for "Type" with "Code Smell" selected (11 items) and "Bug" (1 item). Under "Severity", there are 2 "Major" items and 9 "Info" items. The list of code smells includes:

- `Function.Alarm.getInform()` may expose internal representation by returning `Alarm.inform` (L29, malicious-code)
- `Function.Alarm_Manager.getDis()` may expose internal representation by returning `Alarm_Manager.dis` (L80, malicious-code)
- `Function.Dice.getDis()` may expose internal representation by returning `Dice.dis` (L66, malicious-code)
- `Function.RR.getDis()` may expose internal representation by returning `RR.dis` (L95, malicious-code)
- `Function.Stop_Watch.getDis()` may expose internal representation by returning `Stop_Watch.dis` (L142, malicious-code)
- `Function.Time.getDis()` may expose internal representation by returning `Time.dis` (L110, malicious-code)
- `Function.Timer.getDis()` may expose internal representation by returning `Timer.dis` (L158, malicious-code)
- `Manage.Select_Mode.getDis()` may expose internal representation by returning `Select_Mode.dis` (L58, malicious-code)
- `Manage.Select_Mode.mode_getter()` may expose internal representation by returning `Select_Mode.mode` (L67, malicious-code)
- The method name `System_Support.System_Clock.Flag()` doesn't start with a lower case letter (L36, bad-practice)
- The method name `System_Support.System_Clock2.Flag()` doesn't start with a lower case letter (L33, bad-practice)

The bottom of the list indicates "11 of 11 shown".

5. CheckStyle

A. Overall



B. Graph



C. Analysis Result

i. Bug & Vulnerability

team1 / 19-06-02 Watch 0.6.2_BugFix/src/main/java/Alarm.java

<input type="checkbox"/>	Make buzzer a static final constant or non-public and provide accessors if needed. ...	3 days ago	L14	Vulnerability Minor Open Not assigned 10min effort Comment	cwe
<input type="checkbox"/>	Unread field: Alarm.funcNum ...	3 days ago	L16	Bug Major Open Not assigned 30min effort Comment	performance
<input type="checkbox"/>	Class Alarm defines fields that are used only as locals ...	3 days ago	L16	Bug Major Open Not assigned Comment	correctness
<input type="checkbox"/>	Make alarm a static final constant or non-public and provide accessors if needed. ...	3 days ago	L17	Vulnerability Minor Open Not assigned 10min effort Comment	cwe
<input type="checkbox"/>	Explicitly declare the visibility for "alist". ...	3 days ago	L20	Vulnerability Minor Open Not assigned 5min effort Comment	No tags
<input type="checkbox"/>	Make sec a static final constant or non-public and provide accessors if needed. ...	3 days ago	L21	Vulnerability Minor Open Not assigned 10min effort Comment	cwe
<input type="checkbox"/>	Make sec10 a static final constant or non-public and provide accessors if needed. ...	3 days ago	L22	Vulnerability Minor Open Not assigned 10min effort Comment	cwe
<input type="checkbox"/>	Make min a static final constant or non-public and provide accessors if needed. ...	3 days ago	L23	Vulnerability Minor Open Not assigned 10min effort Comment	cwe
<input type="checkbox"/>	Make min10 a static final constant or non-public and provide accessors if needed. ...	3 days ago	L24	Vulnerability Minor Open Not assigned 10min effort Comment	cwe
<input type="checkbox"/>	Make hour a static final constant or non-public and provide accessors if needed. ...	3 days ago	L25	Vulnerability Minor Open Not assigned 10min effort Comment	cwe
<input type="checkbox"/>	Make hour10 a static final constant or non-public and provide accessors if needed. ...	3 days ago	L26	Vulnerability Minor Open Not assigned 10min effort Comment	cwe
<input type="checkbox"/>	Make part a static final constant or non-public and provide accessors if needed. ...	3 days ago	L27	Vulnerability Minor Open Not assigned 10min effort Comment	cwe
<input type="checkbox"/>	Make ison a static final constant or non-public and provide accessors if needed. ...	3 days ago	L28	Vulnerability Minor Open Not assigned 10min effort Comment	cwe

team1 / 19-06-02 Watch 0.6.2_BugFix/src/main/java/AlarmList.java		
<input type="checkbox"/>	Make alarm a static final constant or non-public and provide accessors if needed. ...	3 days ago · L8 🔗 🔍 Vulnerability · Minor · Open · Not assigned · 10min effort · Comment cwe
<input type="checkbox"/>	Explicitly declare the visibility for "manageSnooze". ...	3 days ago · L9 🔗 🔍 Vulnerability · Minor · Open · Not assigned · 5min effort · Comment No tags
<input type="checkbox"/>	Make index a static final constant or non-public and provide accessors if needed. ...	3 days ago · L10 🔗 🔍 Vulnerability · Minor · Open · Not assigned · 10min effort · Comment cwe
<input type="checkbox"/>	Don't extend "Thread", since the "run" method is not overridden. ...	3 days ago · L26 🔗 🔍 Bug · Major · Open · Not assigned · 5min effort · Comment multi-threading, pitfall
<input type="checkbox"/>	Unread field: AlarmList.manageSnooze ...	3 days ago · L26 🔗 🔍 Bug · Major · Open · Not assigned · 30min effort · Comment performance
team1 / 19-06-02 Watch 0.6.2_BugFix/src/main/java/AlarmUI.java		
<input type="checkbox"/>	Explicitly declare the visibility for "f2slistener". ...	3 days ago · L84 🔗 🔍 Vulnerability · Minor · Open · Not assigned · 5min effort · Comment No tags
<input type="checkbox"/>	Explicitly declare the visibility for "pressedTime". ...	3 days ago · L85 🔗 🔍 Vulnerability · Minor · Open · Not assigned · 5min effort · Comment No tags
<input type="checkbox"/>	Explicitly declare the visibility for "timeClicked". ...	3 days ago · L86 🔗 🔍 Vulnerability · Minor · Open · Not assigned · 5min effort · Comment No tags
<input type="checkbox"/>	Explicitly declare the visibility for "slistener". ...	3 days ago · L144 🔗 🔍 Vulnerability · Minor · Open · Not assigned · 5min effort · Comment No tags
<input type="checkbox"/>	Explicitly declare the visibility for "mlistener". ...	3 days ago · L170 🔗 🔍 Vulnerability · Minor · Open · Not assigned · 5min effort · Comment No tags
<input type="checkbox"/>	Explicitly declare the visibility for "r2slistener". ...	3 days ago · L181 🔗 🔍 Vulnerability · Minor · Open · Not assigned · 5min effort · Comment No tags
<input type="checkbox"/>	Explicitly declare the visibility for "pressedTime". ...	3 days ago · L182 🔗 🔍 Vulnerability · Minor · Open · Not assigned · 5min effort · Comment No tags
<input type="checkbox"/>	Explicitly declare the visibility for "timeClicked". ...	3 days ago · L183 🔗 🔍 Vulnerability · Minor · Open · Not assigned · 5min effort · Comment No tags
team1 / 19-06-02 Watch 0.6.2_BugFix/src/main/java/Buzzer.java		
<input type="checkbox"/>	Unused field: Buzzer.duration ...	3 days ago · L1 🔗 🔍 Bug · Major · Open · Not assigned · 30min effort · Comment performance
<input type="checkbox"/>	Unused field: Buzzer.interval ...	3 days ago · L1 🔗 🔍 Bug · Major · Open · Not assigned · 30min effort · Comment performance
<input type="checkbox"/>	Make alist a static final constant or non-public and provide accessors if needed. ...	3 days ago · L10 🔗 🔍 Vulnerability · Minor · Open · Not assigned · 10min effort · Comment cwe
<input type="checkbox"/>	Make on a static final constant or non-public and provide accessors if needed. ...	3 days ago · L12 🔗 🔍 Vulnerability · Minor · Open · Not assigned · 10min effort · Comment cwe
<input type="checkbox"/>	Make funcType a static final constant or non-public and provide accessors if needed. ...	3 days ago · L15 🔗 🔍 Vulnerability · Minor · Open · Not assigned · 10min effort · Comment cwe
<input type="checkbox"/>	Either re-interrupt this method or rethrow the "InterruptedException". ...	3 days ago · L39 🔗 🔍 Bug · Major · Open · Not assigned · 15min effort · Comment cwe, error-handling, multi-threading
<input type="checkbox"/>	Either re-interrupt this method or rethrow the "InterruptedException". ...	3 days ago · L44 🔗 🔍 Bug · Major · Open · Not assigned · 15min effort · Comment cwe, error-handling, multi-threading
<input type="checkbox"/>	Either re-interrupt this method or rethrow the "InterruptedException". ...	3 days ago · L57 🔗 🔍 Bug · Major · Open · Not assigned · 15min effort · Comment cwe, error-handling, multi-threading
<input type="checkbox"/>	Either re-interrupt this method or rethrow the "InterruptedException". ...	3 days ago · L62 🔗 🔍 Bug · Major · Open · Not assigned · 15min effort · Comment cwe, error-handling, multi-threading
<input type="checkbox"/>	Either re-interrupt this method or rethrow the "InterruptedException". ...	3 days ago · L81 🔗 🔍 Bug · Major · Open · Not assigned · 15min effort · Comment cwe, error-handling, multi-threading
team1 / 19-06-02 Watch 0.6.2_BugFix/src/main/java/FunctionList.java		
<input type="checkbox"/>	Make alarm a static final constant or non-public and provide accessors if needed. ...	3 days ago · L14 🔗 🔍 Vulnerability · Minor · Open · Not assigned · 10min effort · Comment cwe
<input type="checkbox"/>	Make rdg a static final constant or non-public and provide accessors if needed. ...	3 days ago · L15 🔗 🔍 Vulnerability · Minor · Open · Not assigned · 10min effort · Comment cwe
<input type="checkbox"/>	Make rng a static final constant or non-public and provide accessors if needed. ...	3 days ago · L16 🔗 🔍 Vulnerability · Minor · Open · Not assigned · 10min effort · Comment cwe

team1 / 19-06-02 Watch 0.6.2_BugFix/src/main/java/LapSplitList.java

- Make numNum a static final constant or non-public and provide accessors if needed. 3 days ago L9 cwe
- Make lns a static final constant or non-public and provide accessors if needed. 3 days ago L11 cwe
- Method LapSplitList.storeLapSplit(Vector) converts String to boxed primitive using excessive boxing 3 days ago L44 performance
- Method LapSplitList.storeLapSplit(Vector) converts String to boxed primitive using excessive boxing 3 days ago L49 performance
- Method LapSplitList.storeLapSplit(Vector) converts String to boxed primitive using excessive boxing 3 days ago L55 performance
- Method LapSplitList.storeLapSplit(Vector) converts String to boxed primitive using excessive boxing 3 days ago L56 performance
- Method LapSplitList.storeLapSplit(Vector) converts String to boxed primitive using excessive boxing 3 days ago L62 performance
- Method LapSplitList.storeLapSplit(Vector) converts String to boxed primitive using excessive boxing 3 days ago L63 performance
- Method LapSplitList.storeLapSplit(Vector) converts String to boxed primitive using excessive boxing 3 days ago L69 performance
- Method LapSplitList.storeLapSplit(Vector) converts String to boxed primitive using excessive boxing 3 days ago L70 performance
- Method LapSplitList.storeLapSplit(Vector) converts String to boxed primitive using excessive boxing 3 days ago L71 performance
- Method LapSplitList.storeLapSplit(Vector) converts String to boxed primitive using excessive boxing 3 days ago L77 performance
- Method LapSplitList.storeLapSplit(Vector) converts String to boxed primitive using excessive boxing 3 days ago L78 performance
- Method LapSplitList.storeLapSplit(Vector) converts String to boxed primitive using excessive boxing 3 days ago L79 performance

team1 / 19-06-02 Watch 0.6.2_BugFix/src/main/java/RandomDirectionGenerator.java

- Make funcNum a static final constant or non-public and provide accessors if needed. 3 days ago L13 cwe
- Make result a static final constant or non-public and provide accessors if needed. 3 days ago L14 cwe
- Make eLCD a static final constant or non-public and provide accessors if needed. 3 days ago L15 cwe
- Save and re-use this "Random". 3 days ago L25 No tags
- Make sure that using this pseudorandom number generator is safe here. 3 days ago L25 cert, cwe, owasp-a3
- The use of java.util.Random is predictable 3 days ago L25 cwe

team1 / 19-06-02 Watch 0.6.2_BugFix/src/main/java/RandomDirectionGeneratorUI.java

- Explicitly declare the visibility for "flistener". 3 days ago L17 No tags
- Explicitly declare the visibility for "slistener". 3 days ago L26 No tags
- Explicitly declare the visibility for "mlistener". 3 days ago L43 No tags
- Explicitly declare the visibility for "rlistener". 3 days ago L57 No tags

team1 / 19-06-02 Watch 0.6.2_BugFix/src/main/java/RandomNumberGenerator.java

- Explicitly declare the visibility for "view". 3 days ago L15 No tags
- Make funcNum a static final constant or non-public and provide accessors if needed. 3 days ago L16 cwe

ii. Code Smell

team1 / team1		
<input type="checkbox"/>	Add a 'package-info.java' file to document the '19-06-02 Watch 0.6.2_BugFix/src/main/java' package	1 hour ago Code Smell Minor Open Not assigned 20min effort Comment convention
team1 / 19-06-02 Watch 0.6.2_BugFix/src/main/java/Alarm.java		
<input type="checkbox"/>	Add or update the header of this file.	3 days ago Code Smell Blocker Open Not assigned 5min effort Comment No tags
<input type="checkbox"/>	149 more lines of code need to be covered by tests to reach the minimum threshold of 65.0% lines coverage.	3 days ago Code Smell Major Open Not assigned 4h58min effort Comment bad-practice
<input type="checkbox"/>	60 more comment lines need to be written to reach the minimum threshold of 25.0% comment density.	3 days ago Code Smell Major Open Not assigned 2h effort Comment convention
<input type="checkbox"/>	2 duplicated blocks of code must be removed.	3 days ago Code Smell Major Open Not assigned 30min effort Comment pitfall
<input type="checkbox"/>	Move this file to a named package.	3 days ago Code Smell Minor Open Not assigned 10min effort Comment convention
<input type="checkbox"/>	Add a new line at the end of this file.	3 days ago Code Smell Minor Open Not assigned 1min effort Comment convention
<input type="checkbox"/>	Remove this unused import 'java.awt.event.ActionEvent'.	3 days ago L1 Code Smell Minor Open Not assigned 2min effort Comment unused
<input type="checkbox"/>	File does not end with a newline.	3 days ago L1 Code Smell Minor Open Not assigned 2min effort Comment No tags
<input type="checkbox"/>	Missing package-info.java file.	3 days ago L1 Code Smell Minor Open Not assigned 30min effort Comment comment
<input type="checkbox"/>	Avoid unused imports such as 'java.awt.event.ActionEvent'	3 days ago L1 Code Smell Info Open Not assigned 5min effort Comment No tags
<input type="checkbox"/>	Unused import - java.awt.event.ActionEvent.	3 days ago L1 Code Smell Info Open Not assigned 2min effort Comment No tags
<input type="checkbox"/>	Remove this unused import 'java.awt.event.ActionListener'.	3 days ago L2 Code Smell Minor Open Not assigned 2min effort Comment unused
<input type="checkbox"/>	Avoid unused imports such as 'java.awt.event.ActionListener'	3 days ago L2 Code Smell Info Open Not assigned 5min effort Comment No tags
<input type="checkbox"/>	Unused import - java.awt.event.ActionListener.	3 days ago L2 Code Smell Info Open Not assigned 2min effort Comment No tags
<input type="checkbox"/>	Explicitly import the specific classes needed.	3 days ago L3 Code Smell Critical Open Not assigned 5min effort Comment pitfall
<input type="checkbox"/>	Using the '*' form of import should be avoided - java.util.	3 days ago L3 Code Smell Minor Open Not assigned 15min effort Comment No tags
<input type="checkbox"/>	All classes and interfaces must belong to a named package	3 days ago L345 Code Smell Major Open Not assigned 10min effort Comment No tags
<input type="checkbox"/>	Possible God Class (WMC=70, ATFD=9, TCC=31.818%)	3 days ago L345 Code Smell Major Open Not assigned 2h effort Comment No tags
<input type="checkbox"/>	The class 'Alarm' has a Modified Cyclomatic Complexity of 3 (Highest = 20).	3 days ago L345 Code Smell Major Open Not assigned 1h effort Comment size
<input type="checkbox"/>	The class 'Alarm' has a Standard Cyclomatic Complexity of 5 (Highest = 46).	3 days ago L345 Code Smell Major Open Not assigned 1h effort Comment size
<input type="checkbox"/>	Too many fields	3 days ago L345 Code Smell Major Open Not assigned 1h effort Comment size
<input type="checkbox"/>	Refactor this class so it has no more than 20 fields, rather than the 21 it currently has.	3 days ago L5 Code Smell Major Open Not assigned 1h effort Comment brain-overload
<input type="checkbox"/>	Header comments are required	3 days ago L345 Code Smell Minor Open Not assigned 5min effort Comment No tags
<input type="checkbox"/>	Move this left curly brace to the beginning of next line of code.	3 days ago L5 Code Smell Minor Open Not assigned 1min effort Comment convention

<input type="checkbox"/>	Type Javadoc comment is missing null tag. ---	3 days ago	L5			Code Smell	Minor	Open	Not assigned	30min effort	Comment	No tags
<input type="checkbox"/>	Parameter 'view' is not assigned and could be declared final ---	3 days ago	L7			Code Smell	Minor	Open	Not assigned	10min effort	Comment	No tags
<input type="checkbox"/>	Public method and constructor comments are required ---	3 days ago	L11			Code Smell	Minor	Open	Not assigned	5min effort	Comment	No tags
<input type="checkbox"/>	Parameter 'alist' is not assigned and could be declared final ---	3 days ago	L7			Code Smell	Minor	Open	Not assigned	10min effort	Comment	No tags
<input type="checkbox"/>	Parameter 'buzzer' is not assigned and could be declared final ---	3 days ago	L7			Code Smell	Minor	Open	Not assigned	10min effort	Comment	No tags
<input type="checkbox"/>	Move this left curly brace to the beginning of next line of code. ---	3 days ago	L7			Code Smell	Minor	Open	Not assigned	1min effort	Comment	convention
<input type="checkbox"/>	Make this line start after 2 spaces to indent the code consistently. ---	3 days ago	L7			Code Smell	Minor	Open	Not assigned	1min effort	Comment	style
<input type="checkbox"/>	Make this line start after 4 spaces to indent the code consistently. ---	3 days ago	L8			Code Smell	Minor	Open	Not assigned	1min effort	Comment	style
<input type="checkbox"/>	Found non-transient, non-static member. Please mark as transient or provide accessors. ---	3 days ago	L14			Code Smell	Major	Open	Not assigned	30min effort	Comment	No tags
<input type="checkbox"/>	Variable 'buzzer' must be private and have accessor methods. ---	3 days ago	L14			Code Smell	Major	Open	Not assigned	10min effort	Comment	No tags
<input type="checkbox"/>	Field comments are required ---	3 days ago	L14			Code Smell	Minor	Open	Not assigned	5min effort	Comment	No tags
<input type="checkbox"/>	Fields should be declared at the top of the class, before any method declarations, constructors, initializers or inner classes. ---	3 days ago	L14			Code Smell	Minor	Open	Not assigned	10min effort	Comment	No tags
<input type="checkbox"/>	Move this variable to comply with Java Code Conventions. ---	3 days ago	L14			Code Smell	Minor	Open	Not assigned	5min effort	Comment	convention
<input type="checkbox"/>	Instance variable definition in wrong order. ---	3 days ago	L14			Code Smell	Info	Open	Not assigned	10min effort	Comment	No tags