sonarcloud 🔂

Executive Report

Project Name info832_unit-test

Size Rating



Lines of Code

796

Branch 🎾 main

Report date 2022-02-02

Quality Gate





Bugs

8

Reliability on New Code



New Bugs

0

Security



Vulnerabilities

otspots

New Security Hotspots

0

amcainability



Code Smells

Debt Ratio

3.7%

Maintainability on New Code



New Code Smells

Debt Ratio on New Code

0%



Blocker ₩ Bug Critical

Major

Minor 1 Info

Vulnerability

Coverage



0%

Unit Tests

0

Coverage on New Code

0

Duplications



0%

Duplicated Blocks

0

Duplications on New Code

0%





Issues Breakdown



Project Name info832_unit-test

Branch print main

Analysis Date 2022-02-02

Top Common Issues

Severity	Rule	Гуре	# Issues
	Sections of code should not be commented out (java)	@	25
	Standard outputs should not be used directly to log anything (java)	99	10
	Synchronized classes Vector, Hashtable, Stack and StringBuffer should not be used (java)	%	8
	"Preconditions" and logging arguments should not require evaluation (java)	%	6
	Generic exceptions should never be thrown (java)	3	6
	Printf-style format strings should be used correctly (java)	%	6
•	Track uses of "TODO" tags (java)	8	5
•	Unnecessary imports should be removed (java)	%	5
•	String literals should not be duplicated (java)	%	4
•	The diamond operator ("<>") should be used (java)	8	4
•	"Iterator.next()" methods should throw "NoSuchElement Exception" (java)	₩	4
•	Package names should comply with a naming convention (java)	%	4
•	Unused local variables should be removed (ja /a)	⊗	3
•	Declarations should use Java collection interfaces such as "List" wher than specific implemen (java)	%	3
	Unused assignments should be removed (java)	⊗	3
•	Collection.isEmpty() should be used to test for emptiness () ava	%	2
0	Deprecated code should be removed (lava)	%	2
•	Local variable and method parameter names should camply with a naming convention (java)	%	2
	Deprecated elements should have both the conotation and the Javadoc tag (java)	%	2
	"@Override" should be used on overriding and implementing methods (java)	%	2
•	Math operands should be cast being assignment (java)	₩	2
0	Methods of 'Random" that return floating point values should not be used in random integer gene (java)) 🛞	2
•	Local variables should not shadow class fields (java)	8	2
Q	Arrays should not be a cated for varargs parameters (java)	%	1
S	Strings and Boxe(types should be compared using "equals()" (java)	***************************************	1
•	Unused "private" fields should be removed (java)	8	1
	Unused "private" methods should be removed (java)	%	1
•	"static" base class members should not be accessed via derived types (java)	%	1
	"InterruptedException" should not be ignored (java)	₩	1
•	Nested "enum"s should not be declared static (java)	₩	1

Severity Levels

BlockerCriticalMajor

Minor

1 Info

% Multipe severities found

Issue Types

Bug
Vulnerability
Security Hotspot





Issues Breakdown



Project Name info832_unit-test

Branch prain

Analysis Date 2022-02-02

Top Issues By Severity

Severity	Rule	Тур	# Issues
•	String literals should not be duplicated (java)	@	4
•	"static" base class members should not be accessed via derived types (java)	%	1
	Sections of code should not be commented out (java)	%	25
	Standard outputs should not be used directly to log anything (java)	%	10
	Synchronized classes Vector, Hashtable, Stack and StringBuffer should not be used for a	3	8
	"Preconditions" and logging arguments should not require evaluation (java)	%	6
	Generic exceptions should never be thrown (java)	8	6
	Printf-style format strings should be used correctly (java)	8	6
	Unused assignments should be removed (java)	%	3
	Deprecated elements should have both the annotation and the Javadoc tag (java)	%	2
	"@Override" should be used on overriding and implementing methods (java)	%	2
	Local variables should not shadow class fields (java)	%	2
	Unused "private" fields should be removed (java)	%	1
	Unused "private" methods should be removed (java)	%	1
	"InterruptedException" should not be ignored (lava)	₩	1
	Strings and Boxed types should be compared using "equalsi)" (jova)	₩	1
•	Unnecessary imports should be removed (java)	%	5
•	Package names should comply with a naming convention (java)	⊗	4
•	The diamond operator ("<>") should be used (java)	%	4
•	"Iterator.next()" methods should throw "NoSuchElementException" (java)	₩	4
O	Unused local variables should be revioused (java)	⊗	3
O	Declarations should use Java collection interfaces such as "List" rather than specific implemen (java)	⊗	3
0	Collection.isEmpty() should be used to test for emptiness (java)	⊗	2
Q	Math operands should be cast before assignment (java)	₩	2
Q d	Methods of "Rancom" that return floating point values should not be used in random integer gene (java)	%	2
0	Local variable and method parameter names should comply with a naming convention (java)	⊗	2
•	Arrays should not be created for varargs parameters (java)	%	1
•	Nested "enum"s should not be declared static (java)	%	1
0	Track uses of "TODO" tags (java)	%	5
0	Deprecated code should be removed (java)	%	2

Severity Levels

BlockerCriticalMajor

Minor

1 Info

% Multipe severities found

Issue Types

Bug
Vulnerability
Security Hotspot
Code Smell



sonarcloud 🔂

Security HotSpots Breakdown



Project Name info832_unit-test

Branch main Analysis Date 2022-02-02

Top Security HotSpots to Review

Pule

Delivering code in production with debug features activated is security-sensitive (java)

Configuring loggers is security-sensitive (java)

Using pseudorandom number generators (PRNGs) is security-sensitive (java)

4

"he full ve

ase if yo

Severity Levels

BlockerCriticalMajorMinor

1 Info

% Multipe severities found

Issue Types

₩ Bug

Code Smell





Project Name info832_unit-test

Branch main Analysis Date 2022-02-02



Ruie

String literals should not be duplicated

Language java *

sues

Duplicated string literals make the process of refactoring error-prone, since you must be sure to update all occurrences

w design

Issues Breakdown

src/main/discreteBehaviorSimulator/DiscreteActionSimulator.java Define a constant instead of duplicating this literal " after " 4 times. L120

src/main/discreteBehaviorSimulator/DiscreteActionSimulator java
Define a constant instead of duplicating this literal "[DAS] run main test action " 4 times

L120

src/main/discreteBehaviorSimulator/DiscreteActionSimulator, available src/main/discreteBehaviorSimulator/DiscreteActionSimulator, available src/main/discreteBehaviorSimulator/DiscreteActionSimulator, available src/main/discreteBehaviorSimulator/DiscreteActionSimulator, available src/main/discreteBehaviorSimulator/DiscreteActionSimulator, available src/main/discreteBehaviorSimulator/DiscreteActionSimulator, available src/main/discreteBehaviorSimulator, available src/main/discret

L120

P. ero/main/dispretsPehavierCimulator/Disprets/ActiveCinulator invo

src/main/discreteBehaviorSimulator/DiscreteActionSimulator.java

Define a constant instead of duplicating this literal "[AS] reset methats action " 4 times.

L164

i gaser





Project Name info832_unit-test

Branch prain

Analysis Date 2022-02-02



"static" base class members should not be accessed via derived types

inguage java Issues **1**

In the interest of code clarity, static members of a base class should never be accessed using a derived type's name.

confusing

Issues Breakdown

src/main/timer/RandomTimer.java
Use static access with "java.lang.Enum" for "valueOf".

L31

pleas



Security HotSpot S4792



Project Name info832_unit-test

Branch 🍹 main

Analysis Date 2022-02-02

Configuring loggers is security-sensitive

Language java

Configuring loggers is security-sensitive.

cwe owasp-a10 owasp-a3 sans-top25-porous

Issues Breakdown

src/main/action/DiscreteAction.java Make sure that this logger's configuration is safe.

src/main/discreteBehaviorSimulator/DiscreteActionSimulator. Make sure that this logger's configuration is safe.

L42

L38

src/main/discreteBehaviorSimulator/DiscreteActionSimulator.J Make sure that this logger's configuration is safe.

L52

src/main/discreteBehaviorSimulator/DiscreteActionSimulator.java Make sure that this logger's configuration

L53



Security HotSpot **\$2245**



Project Name info832_unit-test

Branch prain

Analysis Date 2022-02-02

Using pseudorandom number generators (PRNGs) is security-sensitive java

1

Using pseudorandom number generators (PRNGs) is security-sensitive.

cwe owasp-a3 owasp-m5

Issues Breakdown

src/main/timer/RandomTimer.java
Make sure that using this pseudorandom number generator is safe here.

L21

olease





Project Name Branch Analysis Date info832_unit-test pmain 2022-02-02

Sections of code should not be commented out

Language java



lssues 25

Programmers should not comment out code as it bloats programs and reduces readability.



unused

Issues Breakdown	
src/main/action/DiscreteAction.java This block of commented-out lines of code should be removed.	L37
src/main/action/DiscreteAction.java This block of commented-out lines of code should be removed.	L41
src/main/action/DiscreteAction.java This block of commented-out lines of code should be removed.	L65
src/main/action/DiscreteAction.java This block of commented-out lines of code should be removed.	L76
src/main/action/DiscreteAction.java This block of commented-out lines of social should be received.	L122
src/main/action/Discrete/clion, ava This block of commented-out lines of code should be removed.	L130
src/main/action/DucreteActionDepender, Sava This block of commented out lines of code should be removed.	L40
Sic main faction Discrete Action Dependent java This block of commented-out these of code should be removed.	L89
src/men/action/DiscreteActionDependent.java This block of commented-out lines of code should be removed.	L92
src/main/action/DiscreteActionDependent.java This block of commented-out lines of code should be removed.	L117
src/main/action/DiscreteActionDependent.java This block of commented-out lines of code should be removed.	L142
src/main/action/DiscreteActionInterface.java This block of commented-out lines of code should be removed.	L49
src/main/action/DiscreteActionOnOffDependent.java This block of commented-out lines of code should be removed.	L33
src/main/action/DiscreteActionOnOffDependent.java This block of commented-out lines of code should be removed.	L81
src/main/discreteBehaviorSimulator/Clock.java This block of commented-out lines of code should be removed.	L55
src/main/discreteBehaviorSimulator/DiscreteActionSimulator.java This block of commented-out lines of code should be removed.	L41





Project Name Branch Analysis Date 🥍 main 2022-02-02 info832_unit-test Issues Breakdown src/main/discreteBehaviorSimulator/DiscreteActionSimulator.java L46 This block of commented-out lines of code should be removed. src/main/discreteBehaviorSimulator/DiscreteActionSimulator.java L86 This block of commented-out lines of code should be removed. src/main/discreteBehaviorSimulator/DiscreteActionSimulator.java L139 This block of commented-out lines of code should be removed. src/main/discreteBehaviorSimulator/DiscreteActionSimulator.java L145 This block of commented-out lines of code should be removed. src/main/timer/PeriodicTimer.java L66 This block of commented-out lines of code should be removed. src/main/timer/RandomTimer.java L19 This block of commented-out lines of code should be removed. src/main/timer/RandomTimer.java L27 This block of commented-out lines of code should be removed. src/main/timer/RandomTimer.java L141 This block of commented-out lines of code should src/main/timer/Timer.java L15 This block of commented-out lines out lines

lease,



S106



Project Name info832_unit-test

Branch prain

Analysis Date 2022-02-02



Standard outputs should not be used directly to log anything

Language java



10

When logging a message there are several important requirements which must be fulfilled: The user must be able to easily retrieve the logs The format of all logged message must be uniform to allow the user to easily read the log Logged data must actually be recorded Sensitive data must only be logged securely. If a program directly writes to the standard outputs, there is absolutely no way to comply with those requirements.

bad-practice cert owasp-a3

Replace this use of System.out or System.err by a logger.

Replace this use of System.out or System.err by a logger.

src/main/discreteBehaviorSimulator/DiscreteActionSimulator.java

Issues Breakdown	
src/main/discreteBehaviorSimulator/DiscreteActionSimulator.java Replace this use of System.out or System.err by a logger.	L121
src/main/discreteBehaviorSimulator/DiscreteActionSimulator.iava Replace this use of System.out or System.err by a logger.	L124
src/main/discreteBehaviorSimulator/DiscreteActionSimulator.Java Replace this use of System.out or System.err by a longer.	L165
Replace this use of System.out or System.err by a logger. src/main/discreteBehaviorSimulator/Discrete ActionSimulator.java Replace this use of System.out or System.err by a logger.	L168
src/main/discreteBehaviorSimulator/Discrete/ctionSimulator ava Replace this use of System.out or System err by a logge	L179
src/main/discreteBehavio Simulator/DiscreteAction Simulator.java Replace this use of System.out or System.err by a logger.	L184
src/main/discre eEanavio Sinculator/DiscreteActionSimulator.java Replace this use of System.out or System.err by a logger.	L198
src/mair/discreteBehaviorSimu/@or/DiscreteActionSimulator.java Replace dis use of System.ox or System.err by a logger.	L209
src/main/discreteBehayorSimulator/DiscreteActionSimulator.java	L211



L221





Project Name Branch Analysis Date info832_unit-test pmain 2022-02-02



Synchronized classes Vector, Hashtable, Stack and StringBuffer should not be used

Language java

(A)

8

Early classes of the Java API, such as Vector, Hashtable and StringBuffer, were synchronized to make them thread-safe.

performance

Issues Breakdown	
src/main/action/DiscreteActionOnOffDependent.java Replace the synchronized class "Vector" by an unsynchronized one such as "ArrayList" or "Lir. tedList".	L48
src/main/action/DiscreteActionOnOffDependent.java Replace the synchronized class "Vector" by an unsynchronized one such as "ArrayList" or "LinkedList".	L48
src/main/action/DiscreteActionOnOffDependen jova Replace the synchronized class "Vector" by an unsynchronized one such as "Array Cist" or "LinkedList".	L49
src/main/discreteBehaviorSimulator/DiscreteActionSimulator.java Replace the synchronized class "Vector" by an unsynchronized on such as "ArrayList" or "LinkedList".	L28
src/main/discreteBehaviorSimulator/DiscreteActionSimulator ava Replace the synchronized class "StringBuffer" by an unsanchronized one such as "StringBuilder".	L226
src/main/discreteBehavic Simulator/LogFormattch ava Replace the synchronized class "SuringBuffer" by an unsynchronized one such as "StringBuilder".	L16
src/main/timer/Date/Timer.java Replace the synchronized class "Vector" by an unsynchronized one such as "ArrayList" or "LinkedList".	L9
src/maip/times/DateTimer.java.	L27

Replace the synchronized class "Vector" by an unsynchronized one such as "ArrayList" or "LinkedList".







Issues

6

Project Name Branch Analysis Date 🎾 main info832_unit-test 2022-02-02



Language "Preconditions" and logging arguments should not require evaluation java

Passing message arguments that require further evaluation into a Guava com.google.common.base.Preconditions check can result in a performance penalty.

performance

Issues Breakdown

src/main/discreteBehaviorSimulator/DiscreteActionSimulator.java	L120
Invoke method(s) only conditionally. Use the built-in formatting to construct his argument.	

src/main/discreteBehaviorSimulator/DiscreteAction	nSimulator.java	25,	L123
Invoke method(s) only conditionally. Use the built	-in formatting to construct	this argument.	

src/main/discreteBehaviorSimulator/Disc	reteActionSimu	lator lav		I 164
			1 . X . A	
Involve method(s) only conditionally allog	the built in for	matting	to construe this orgument	

src/main/discreteBehaviorSimulator/DiscreteActionSin	ulator.java Sladeni	L167
Invoke method(s) only conditionally. Use the built-in to	rmatting to construct this arg	ument

src/main/action/DiscreteAction.java	OFT Whit	L75
Invoke method(s) only conditionally.	Use the built-in force ting to construct this argument.	

	L121
Invoke method(s) only conditionally. Use the built-in formatting to construct this argument.	
e V	
ce,	







6

L68

L41

Project Name info832_unit-test

Branch P main Analysis Date 2022-02-02



Generic exceptions should never be thrown

Language java 280

Using such generic exceptions as Error, RuntimeException, Throwable, and Exception prevents calling method from handling true, system-generated exceptions differently than application-generated errors

w cert cwe error-handling

Issues Breakdown

src/main/discreteBehaviorSimulator/Clock.java

Define and throw a dedicated exception instead of using a generic one.

src/main/discreteBehaviorSimulator/Clock.java

Define and throw a dedicated exception instead of using a generic one.

L73

src/main/timer/RandomTimer.java

Define and throw a dedicated exception instead of using a generic one.

src/main/timer/RandomTimer.java

Define and throw a dedicated exception instead of using a generic one.

E src/main/timer/RandomTimer.java

Define and throw a dedicated exception instead of using general one.

Enc/main/timer/Random timer.js.va

Define and throw a dedicated exception instead of using a generic one.

. 2350





Project Name info832_unit-test

Branch main Analysis Date 2022-02-02



Printf-style format strings should be used correctly

Language java



ssues 6

Because printf-style format strings are interpreted at runtime, rather than validated by the compile they can contain errors that result in the wrong strings being created.

w cert confusing

Issues Breakdown

src/main/discreteBehaviorSimulator/DiscreteActionSimulator.java
Format specifiers or lambda should be used instead of string concatenation.

L120

src/main/discreteBehaviorSimulator/DiscreteActionSimulator.isva Format specifiers or lambda should be used instead of string concatenation. L123

src/main/discreteBehaviorSimulator/DiscreteActionSimulator.java
Format specifiers or lambda should be used instead of string concatenation

L164

src/main/discreteBehaviorSimulator/DiscreteActionSinculator.java
Format specifiers or lambda should be used instead of string copes enation.

L167

src/main/action/DiscreteAction.java

L75

Format specifiers or lambda should be used instead of sing concatenation.

Lis

src/main/action/Discrete Action, ava Format specifiers or lambda, should be used in sead of string concatenation. L121





Project Name info832_unit-test

Branch prain

Analysis Date 2022-02-02



Unused assignments should be removed

Language java **₩**

Issues 3

A dead store happens when a local variable is assigned a value that is not read by any subsequent instruction

cert cwe unused

Issues Breakdown

src/main/action/DiscreteActionDependent.java Remove this useless assignment to local variable "element". L91

src/main/action/DiscreteActionDependent.java Remove this useless assignment to local variable "method" L143

src/main/action/DiscreteActionDependent.java
Remove this useless assignment to local variable to high

L144

eit ye





Project Name info832_unit-test

Branch 🎾 main

Analysis Date 2022-02-02



Deprecated elements should have both the annotation and the Javadoc tag

Language java

Issues 2

Deprecation should be marked with both the @Deprecated annotation and @deprecated Javadoc jag

bad-practice obsolete

Issues Breakdown

- src/main/timer/PeriodicTimer.java Add the missing @deprecated Javadoc tag.
- src/main/timer/PeriodicTimer.java Add the missing @deprecated Javadoc tag.

L21

L40





Project Name info832_unit-test

Branch prain

Analysis Date 2022-02-02



"@Override" should be used on overriding and implementing methods

java java

22

Issues 2

Using the @Override annotation is useful for two reasons: It elicits a warning from the compiler the annotated method doesn't actually override anything, as in the case of a misspelling.

bad-practice

Issues Breakdown

src/main/discreteBehaviorSimulator/LogFormatter.java Add the "@Override" annotation above this method signature L36

src/main/discreteBehaviorSimulator/LogFormatter.java Add the "@Override" annotation above this method signature L42

25e, 111.





Project Name info832_unit-test

Branch prain

Analysis Date 2022-02-02



Local variables should not shadow class fields

Language java **₩**

Issues 2

Overriding or shadowing a variable declared in an outer scope can strongly impact the readability, and therefore the maintainability, of a piece of code.

w cert pitfall suspicious

Issues Breakdown

src/main/timer/PeriodicTimer.java
Rename "next" which hides the field declared at line 6.

L54

src/main/timer/TimeBoundedTimer.java
Rename "next" which hides the field declared at line 9.

L46

ase, it,





Project Name info832_unit-test

Branch prain

Analysis Date 2022-02-02



Unused "private" fields should be removed

Language java **₩**

Issues
1

If a private field is declared but not used in the program, it can be considered dead code and should therefore be removed.



unused

Issues Breakdown

src/main/action/DiscreteActionOnOffDependent.java Remove this unused "currentLapsTime" private field. L20

lease.





Project Name info832_unit-test

Branch prain

Analysis Date 2022-02-02



Unused "private" methods should be removed

Language java **₩**

Issues
1

private methods that are never executed are dead code: unnecessary, inoperative code that should be removed

unused

Issues Breakdown

src/main/action/DiscreteActionOnOffDependent.java Remove this unused private "dates2Timalapse" method. L48

alease,



S2142



Project Name info832_unit-test

Branch prain

Analysis Date 2022-02-02



"InterruptedException" should not be ignored

Language java Ť

sues **1**

InterruptedExceptions should never be ignored in the code, and simply logging the exception counts this case as "ignoring".

we error-handling multi-threading

Issues Breakdown

src/main/discreteBehaviorSimulator/DiscreteActionSimulator.java

Either re-interrupt this method or rethrow the "InterruptedException" that can be caught here.

L193

ble



S4973



Project Name info832_unit-test

Branch prain

Analysis Date 2022-02-02



Strings and Boxed types should be compared using "equals()"

Language java **#**

1

It's almost always a mistake to compare two instances of java.lang. String or boxed types like java.lang. Integer using reference equality == or !=, because it is not comparing actual value but locations in memory.

cert cwe

Issues Breakdown

src/main/action/DiscreteAction.java Strings and Boxed types should be compared using "equals()". L107

bite**garden**





Project Name info832_unit-test

Branch prain

Analysis Date 2022-02-02



Unnecessary imports should be removed

Language java *

Issues 5

The imports part of a file should be handled by the Integrated Development Environment (IDE), not manually by the developer.



unused

Issues Breakdown

src/main/action/DiscreteAction.java Remove this unused import 'java.util.TreeSet'.

. _

L4

src/main/action/DiscreteAction.java
Remove this unused import 'java.util.Vector'.

L5

src/main/action/DiscreteAction.java

Remove this unused import 'java.util.logging ConsolaHandler'.

L6

src/main/action/DiscreteAction.java
Remove this unused import 'java.util.logging FileHand'er'.

L7

src/main/timer/RandomTimer.java
Remove this unused import 'java.ut'll Vector'

L4

1ease





L1

L1

Project Name info832_unit-test

Branch 🎾 main

Analysis Date 2022-02-02

4	

Rule Package names should comply with a naming convention Language java

4

Shared coding conventions allow teams to collaborate efficiently.



convention

Issues Breakdown

- src/main/discreteBehaviorSimulator/Clock.java Rename this package name to match the regular expression '^[a-z_]+(\.[a-z_])
- src/main/discreteBehaviorSimulator/ClockObserver.java L1 Rename this package name to match the regular expression 'No
- src/main/discreteBehaviorSimulator/DiscreteActionSimulator. L2 Rename this package name to match the regular expression "
- src/main/discreteBehaviorSimulator/LogFormatter.java Rename this package name to match the





Project Name info832_unit-test

Branch p main Analysis Date 2022-02-02



The diamond operator ("<>") should be used

Language java ₩

lssues 4

Java 7 introduced the diamond operator (<>) to reduce the verbosity of generics code.



Issues Breakdown

src/main/action/DiscreteActionDependent.java
Replace the type specification in this constructor call with the diamond operation ("<>"). (soner java.source n...

L31

src/main/discreteBehaviorSimulator/Clock.java

L25

Replace the type specification in this constructor call with the diamond operator ("<> \) (sonar.java.source n...

src/main/timer/DateTimer.java

L13

Replace the type specification in this constructor call with the diamond operator (">"). (sonar.java.source n...

src/main/timer/DateTimer.java

Replace the type specification in this constructor call with the diagonal operator ("<>"). (sonar.java.source n...

L28

rease,



S2272



Project Name info832_unit-test

Branch main Analysis Date 2022-02-02



"Iterator.next()" methods should throw "NoSuchElementException"

Language java

Issu 4

By contract, any implementation of the java.util.lterator.next() method should throw a NoSuch Flement Exception exception when the iteration has no more elements.

w error-handling unpredictable

Issues Breakdown

src/main/action/DiscreteActionDependent.java
Add a "NoSuchElementException" for iteration beyond the end of the collection

L141

src/main/action/DiscreteActionOnOffDependent.java
Add a "NoSuchElementException" for iteration beyond the end of the collection.

L130

src/main/timer/OneShotTimer.java

Add a "NoSuchElementException" for iteration beyond the end of the collection.

L19

src/main/timer/RandomTimer.java

Add a "NoSuchElementException" for iteration beyond the end of the collection.

L119

i ease,





Project Name info832_unit-test

Branch prain

Analysis Date 2022-02-02

U

Unused local variables should be removed

Language java



Issues 3

If a local variable is declared but not used, it is dead code and should be removed.

unused

Issues Breakdown

src/main/action/DiscreteActionDependent.java Remove this unused "element" local variable. L91

src/main/action/DiscreteActionDependent.java Remove this unused "method" local variable. L143

src/main/action/DiscreteActionDependent.java Remove this unused "object" local variable.

L144

, ease,





Project Name info832_unit-test

Branch prain

Analysis Date 2022-02-02



Declarations should use Java collection interfaces uch as "LinkedList" ...

Language java **₩**

Issues 3

The purpose of the Java Collections API is to provide a well defined hierarchy of interfaces in ord to hide implementation details.

bad-practice

Issues Breakdown

src/main/action/DiscreteActionOnOffDependent.java
The type of "datesOn" should be an interface such as "SortedSet" rather than the implementation "TreeSet"

L80

src/main/action/DiscreteActionOnOffDependent.java
The type of "datesOff" should be an interface such as "Sor

L80

The type of "datesOff" should be an interface such as "SortedSet" rather than the implementation "TreeSet".

L80

src/main/timer/DateTimer.java

L12

The type of "dates" should be an interface such as "Sorted Set" rather than the implementation "TreeSet".

alease,





Project Name info832_unit-test

Branch prain

Analysis Date 2022-02-02



Collection.isEmpty() should be used to test for emptiness

Language java **₩**

Issues 2

Using Collection.size() to test for emptiness works, but using Collection.isEmpty() makes the code more performant.

clumsy

Issues Breakdown

src/main/action/DiscreteActionOnOffDependent.java
Use isEmpty() to check whether the collection is empty or not.

L61

src/main/action/DiscreteActionOnOffDependent.java
 Use isEmpty() to check whether the collection is empty or not.

L61

ase.



S2184



Project Name info832_unit-test

Branch prain

Analysis Date 2022-02-02

O

Math operands should be cast before assignment

Language java Ť

ssues 2

When arithmetic is performed on integers, the result will always be an integer.

cert cwe overflow sans-top25-risky

Issues Breakdown

155ac5 bicakaowii

src/main/timer/RandomTimer.java
Cast one of the operands of this addition operation to a "double".

L65

src/main/timer/RandomTimer.java
Cast one of the operands of this integer division to a "double".

L65

Lease,





Project Name info832_unit-test

Branch prain

Analysis Date 2022-02-02



Methods of "Random" that return floating point values should not be used in random integer generation

Language java



Issues 2

There is no need to multiply the output of Random's nextDouble method to get a random integer



clumsy

Issues Breakdown

src/main/timer/RandomTimer.java Use "nextInt()" instead.

L150

src/main/timer/RandomTimer.java Use "nextInt()" instead.

L158

Jease,





Issues

2

Project Name info832_unit-test

Branch 🎾 main

Analysis Date 2022-02-02



Local variable and method parameter names should comply with a naming convention

Shared naming conventions allow teams to collaborate effectively.

Language java



convention

Issues Breakdown

src/main/discreteBehaviorSimulator/LogFormatter.java Rename this local variable to match the regular expression '^[a-z][a-zA-Z0-9] L29

src/main/timer/RandomTimer.java Rename this local variable to match the regular expression '^[aL168





Project Name info832_unit-test

Branch prain

Analysis Date 2022-02-02



Arrays should not be created for varargs parameters

Language java



Issues
1

There's no point in creating an array solely for the purpose of passing it as a varargs (...) argument varargs is an array.



clumsy

Issues Breakdown

src/main/action/DiscreteAction.java Remove this array creation.

L59

bite **garden**





Project Name info832_unit-test

Branch prain

Analysis Date 2022-02-02

(1)

Nested "enum"s should not be declared static

Language java **₩**

Issues
1

According to the Java Language Specification-8.9: Nested enum types are implicitly static.

clumsy

Issues Breakdown

src/main/timer/RandomTimer.java
Remove this redundant "static" qualifier; nested enum types are implicitly static

L15

bite garden



Security HotSpot **\$4507**



Project Name info832_unit-test

Branch p main Analysis Date 2022-02-02

Delivering code in production with debug features activated is security-sensitive

Delivering code in production with debug features activated is security-sensitive.

java !

◆

cwe debug error-handling owasp-a3 spring user-experience

Issues	D.	-00	اما	014/1	
issues	DI	ea	KU	OWI	1

src/main/action/DiscreteAction.java
Make sure this debug feature is deactivated before delivering the code in production.

src/main/discreteBehaviorSimulator/DiscreteActionSimulator.ion

Make sure this debug feature is deactivated before delivering the code in production

src/main/discreteBehaviorSimulator/DiscreteActionSimulator,Java

Make sure this debug feature is deactivated before delivering the code in production.

src/main/discreteBehaviorSimulator/DiscreteActionSimulator.java

Make sure this debug feature is deactivated before delivering the code in production

L62

L50

L129

L194

deas





Project Name info832_unit-test

Branch 🥍 main

Analysis Date 2022-02-02



Track uses of "TODO" tags

Language java



Issues 5

TODO tags are commonly used to mark places where some more code is required, but which the deve wants to implement later.



cwe

Issues Breakdown

src/main/discreteBehaviorSimulator/DiscreteActionSimulator.java Complete the task associated to this TODO comment.

L196

src/main/action/DiscreteAction.java Complete the task associated to this TODO comment. L19

src/main/action/DiscreteActionDependent.java Complete the task associated to this TODO comm L13

src/main/action/DiscreteActionInterface.java Complete the task associated to this TODO commo L7

src/main/discreteBehaviorSimulator/Discrete/ quonSimulator ava Please if you like th Complete the task associated to this TODO comment.

L105





Project Name info832_unit-test

Branch prain

Analysis Date 2022-02-02

0

Deprecated code should be removed

Language java



Issues 2

This rule is meant to be used as a way to track code which is marked as being deprecated.

obsolete

Issues Breakdown

src/main/timer/PeriodicTimer.java
 Do not forget to remove this deprecated code someday.

L21

src/main/timer/PeriodicTimer.java
Do not forget to remove this deprecated code someday

L40

rease,