

#4 2nd Testing – Static Analysis Test

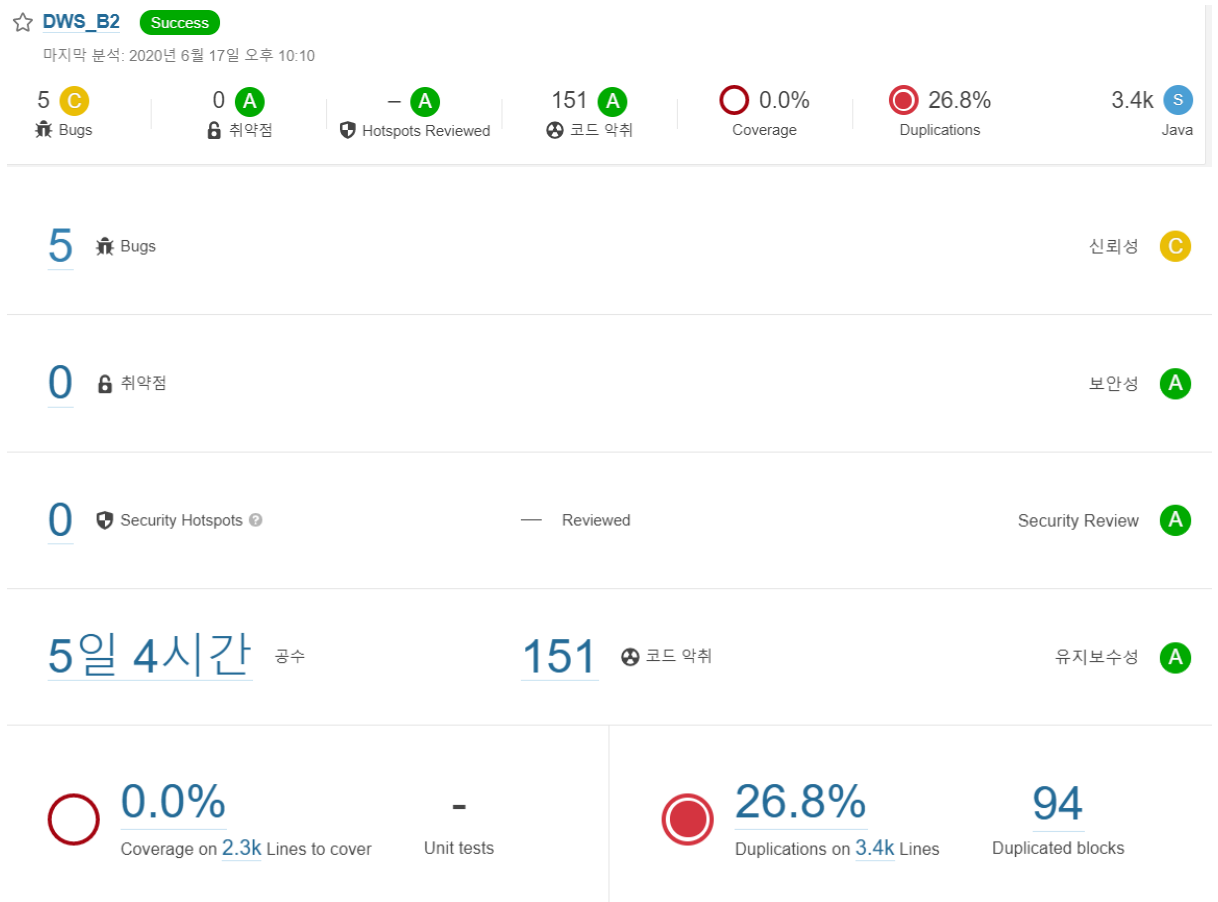
Software V&V

Static Analysis Test for Team B2 By team 2

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1 Overall Static Analysis Test



2 Bugs

2.1 Either re-interrupt this method or rethrow the "InterruptedException".

```

} catch (InterruptedException e) {

```

Either re-interrupt this method or rethrow the "InterruptedException". Why is this an issue? 14일 전 ▾ L1723 🔗

Bug Major Open 할당되지 않음 15min effort 코멘트 No tags ▾

Thread 실행중 InterruptedException을 다시 보낼 수 있다.

Thread InterruptedException인 경우, Error가 발생하였을 때 확실히 Thread가 죽는지 확인 할 것을 권고 한다.

```
Thread.currentThread().interrupt(); //추가
```

watchGUI.java Line 1723, Buzzer.java Line 45, 69

2.2 The return value of "plusYears" must be used

```
-----  
if(returnTime.getYear()>9999) { //9999 이상일 경우 0부터 다시 시작  
    returnTime.plusYears(-10000);  
}
```

The return value of "plusYears" must be used. Why is this an issue? 16일 전 L52
Bug Major Open 할당되지 않음 10min effort 코멘트 No tags

plusYears에 대한 리턴 값이 사용되지 않고 있다.

Ex returnTime.plusYears(10000);

⇒ LocalDateTime time = returnTime.plusYears(-10000);

WorldTime.java line 52,55

CalorieCheck_Pane.java 33,47,128

3 Code Smell

3.1 Add the "@Override" annotation above this method signature

```
public void paintComponent(Graphics g) {
```

Add the "@Override" annotation above this method signature Why is this an issue? 16일 전 L34
Code Smell Major Open 할당되지 않음 5min effort 코멘트 No tags

Override 추가 권고

Alarm_Pane.java line 34 , 48 , 134

SetMode_Pane.java 31,45,114

Stopwatch_Pane.java 31,45,125

TimeKeeping_Pane.java 33,47,133

Timer_Pane.java 32,46,127

WorldTime_Pane.java 31,45,126 , 200,208,211

ModeManager.java 48

3.2 This block of commented-out lines of code should be removed.

지워져야 하는 의미없는 주석 Line

watchGUI.java 291

Alarm.java 28

CalorieCheck.java 7

CalorieCheck.java 149 , 168

ModeManager.java 64,68,71

Tick.java 73

3.3 This case's code block is the same as the block for the case

```

getTimeKeepingPane().getCursorLabel()[5].setVisible(true);
for(int i=0; i<4; i++) getTimeKeepingPane().getCursorLabel()[i].setVisible(false);
break;
case 1:
getTimeKeepingPane().getCursorLabel()[4].setVisible(true);
for(int i=0; i<6; i++){
    if(i != 4) getTimeKeepingPane().getCursorLabel()[i].setVisible(false);
}
}

break;
case 5:
getTimeKeepingPane().getCursorLabel()[0].setVisible(true);
for(int i=1; i<6; i++)getTimeKeepingPane().getCursorLabel()[i].setVisible(false);
break;
case 6:
getTimeKeepingPane().getCursorLabel()[5].setVisible(true);
for(int i=0; i<4; i++) getTimeKeepingPane().getCursorLabel()[i].setVisible(false);
break;

```

This case's code block is the same as the block for the case on line 1019. Why is this an issue? 13일 전 L1054

Code Smell Major Open 할당되지 않음 10min effort 코멘트 No tags

Case 0 , Case 6 이 같은 내용을 갖고 있음

Ex) Case 0 : case6 : (code) break;

watchGUI.java 1054->1019 ,1060->1029

3.4 This line will not be executed in a loop; only the first line of this 2-line block will be. The rest will execute only once.

```

//set cursor image && choose visible cursor
for(int i=0; i<2; i++) getCcPane().getCursorLabel()[i].setIcon(cursorSmallImg);
    if(calorieCursor){
        getCcPane().getCursorLabel()[0].setVisible(true);
        getCcPane().getCursorLabel()[1].setVisible(false);
    }else{
        getCcPane().getCursorLabel()[0].setVisible(false);
        getCcPane().getCursorLabel()[1].setVisible(true);
    }
}

```

This line will not be executed in a loop; only the first line of this 2-line block will be. The rest will execute only once. Why is this an issue? 13일 전 L1489

Code Smell Major Open 할당되지 않음 5min effort 코멘트 No tags

for문의 {}(범위) 정확하게 표현 권고

watchGUI.java 1489

3.5 Either remove or fill this block of code

catch(InterruptedException e){} 이 부분을 Error log등 Error가 발생 할 경우 취해야 할 행동 추가

Buzzer.java 45 69

ModeManager.java 246,267,269

- 3.6 Remove this unused method parameter "flag".

Parameter사용 안함 , parameter 지우기

CalorieCheck.java 86

- 3.7 Update this method so that its implementation is not identical to "getCursor" on line 91.

```
public boolean 1 getCursor(){return cursor;}  
public void setCursor(boolean cursor){this.cursor=cursor;}
```

```
/**  
 *  
 */  
public void changeCursor() {  
    cursor = !cursor;  
}  
  
public boolean isCursor() { return cursor;}
```

Update this method so that its implementation is not identical to "getCursor" on line 91.

12일 전 L103

Why is this an issue?

Code Smell Major Open 할당되지 않음 15min effort 코멘트

No tags

동일한 Method 존재 isCursor ,getCursor

CalorieCheck.java 103->91

- 3.8 Remove this unused private field.

사용하지 않는 변수 지우기

ModeManager.java 50,57,

StopWatch.java 32

- 3.9 Remove this useless assignment to local variable "future".

사용하지 않는 "future" variable

ModeManager.java 77

- 3.10 This branch's code block is the same as the block for the branch on line 199.

```

        if(elapsedTime >= 5.0f) { //elapsedTime이 5초 이상일 때 저장하고 defaultScreen으로.
            ((Alarm) modes[1]).saveAlarm();
            isEditMode = !isEditMode;
        }
        else if(Button == 0) //Mode : Cursor 옮김
            ((Alarm)modes[1]).changeCursor();
        else if(Button == 1) { //Adjust를 눌렀을 때 저장하고 defaultScreen으로.
            ((Alarm) modes[1]).saveAlarm();
            isEditMode = !isEditMode;
        }
    }
}

```

This branch's code block is the same as the block for the branch on line 199. Why is this an issue? 11일 전 L208

Code Smell Major Open 할당되지 않음 10min effort 코멘트 No tags

같은 code block

⇒ `elapsedTime >= 5.0f || button == 1`

ModeManager.java 208

3.11 Remove this expression which always evaluates to "true"

```

...
public boolean decreaseTimer() {
    // TODO implement here
    if( 1 pauseTimerFlag){
        return false;
    }

    //
    timerTime = timerTime.minusNanos(10000000);

    if( 2 !pauseTimerFlag){

```

Remove this expression which always evaluates to "true" Why is this an issue? 16일 전 L138

Code Smell Major Open 할당되지 않음 10min effort 코멘트 No tags

Line 131을 참조 하면, 138은 무조건 True

→ If문을 지우거나 `if(true)`로 수정 가능

Timer.java 138

4 Redmin (Issue Traker)

#	유형	상태	우선순위	제목	담당자	변경
21	지원	신규	보통	3.11 Remove this expression which always evaluates to "true"		2020/06/17 17:27 ...
20	지원	신규	보통	3.10 This branch's code block is the same as the block for the branch on line 199.		2020/06/17 17:27 ...
19	지원	신규	보통	3.9 Remove this useless assignment to local variable "future".		2020/06/17 17:26 ...
18	지원	신규	보통	3.8 Remove this unused private field		2020/06/17 17:26 ...
17	지원	신규	보통	3.7 Update this method so that its implementation is not identical to "getCursor" on line 91.		2020/06/17 17:25 ...
16	지원	신규	보통	3.5 Either remove or fill this block of code		2020/06/17 17:24 ...
15	지원	신규	보통	3.4 This line will not be executed in a loop; only the first line of this 2-line block will be. The rest will execute only once.		2020/06/17 17:23 ...
14	지원	신규	보통	3.3 This case's code block is the same as the block for the case		2020/06/17 17:23 ...
13	지원	신규	보통	3.2 This block of commented-out lines of code should be removed.		2020/06/17 17:24 ...
12	지원	신규	보통	3.1 Add the "@Override" annotation above this method signature		2020/06/17 17:21 ...
11	지원	신규	보통	2.2 The return value of "plusYears" must be used		2020/06/17 17:21 ...
10	지원	신규	보통	2.1 Either re-interrupt this method or rethrow the "InterruptedException"		2020/06/17 17:20 ...