



# Investigating cause of an apparent bug

LAB 9

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# Introduction

- ▶ Systems evolve over time to support new features or for their own improvement.
- ▶ They might also evolve to fix bugs or to be ported to new platforms.
- ▶ Whenever the source code is altered there is a good chance that it has been broken in some way.
- ▶ Hardware simulator has been evolved for this lab exercise.

# What to do today

- ▶ Download [simulator-1.2.2.zip](#) from D2L.
- ▶ In this you will find a JUnit 4 test case called AbstractHardwareTest (under the test package).
- ▶ Run it as Junit test.
- ▶ There will be a failure and you have to investigate the cause of the failure.

# Setting up a break point

```
42 notifyListeners(myListenerClass,  
43  
44     assertTrue(l2.fooCalled);  
45     assertTrue(l1.fooCalled);  
46 }  
47 }
```

- Double click on the left of line number to set a break point.
- When the code is debugged the execution stops at the break point. It stops after executing the code before it.
- Press F6 to move to next line after the break point.

# Setting up a break point

```
37 MyListener l1 = new MyListener(), l2 = new MyListener();
38
39 register(l1);
40 register(l2);
41
42 notifyListeners(MyListener.class, "foo");
43
44 assertTrue(l2.fooCalled);
45 assertTrue(l1.fooCalled);
46 }
47 }
48
```

- Press F8 to directly move to the next breakpoint.

# Start with lab exercise 9

- ▶ Follow the instructions on D2L.