

# Assignment 2 Hints

Some additional hints for solving Assignment 2. All links point to the reference documentation that was presented in Lab 6 (and has been linked to in Lab 6 and 7). Two links here are a bit more specific to find the right places faster.

These hints relate the tasks of Assignment 2 to similar tasks of Lab 6 and Lab 7. There is some explanation in this walkthrough of the worksheet:

<https://leicester.cloud.panopto.eu/Panopto/Pages/Viewer.aspx?id=f1bb2f97-b14b-4161-85ea-aa1b00dfacd8>

## Task 1a

See also Lab 6, Task 1b for the right pointcut and the example “Field-related pointcuts” here:

<http://www.eclipse.org/aspectj/doc/released/progguide/semantics-pointcuts.html#primitive-pointcuts>

## Task 1b

Follow the assumption in the worksheet: “all public methods of class Elevator that return a Boolean value are processing events”. See one of the tracing examples of how to print method names, i.e., the event.

In generated UMPLE code, an event that is not processed returns false. See Lab 7, Task 2 and the documentation linked there on how to check return values.

## Task 2

The hint already tells you part of the pointcut but you might want to pull out the specific elevator to later set its state.

Calling private methods or accessing private fields requires a privileged aspect:

<http://www.eclipse.org/aspectj/doc/released/progguide/semantics-aspects.html#aspect-privilege>

## Task 3

We did similar bookkeeping in Lab 7, Task 3 with linked documentation to inter-type members.

We also changed the behavior of a method in Lab 7, Task 4 with linked documentation.

## Task 4

This appears to be a rather standard pointcut and advice but now we should look for ElevatorVis objects because we want to execute their `gui.show(“open_blocked”) method.`

Note that the worksheet said previously `ElevatorVis.show(“open_blocked”))` instead of `ElevatorVis.gui.show(“open_blocked”))`, i.e., it was missing the field `gui` information.