The Debugger

The debugger allows you to execute the code one line at a time from one or more specified places called break points.

Setting break points:

Break points are set at executable lines, not comments or blank lines.

**Eclipse:** double click on the line number or the blue stripe on the left hand side of the editor window. A blue dot will appear on the blue stripe. To remove break point, double click on the same spot.

**NetBeans:** click on the line number on the left hand side of the editor window. A pink square will appear and the line will be highlighted in pink. To remove break point, click on the pink square.
Program started in debugging mode will run until it encounters first break point.

Eclipse: Run->Debug, <command>-F11,

NetBeans: Debug->Debug Project, <command>-F5,

Once at a break point you can examine an modify value of variables.

Break points can be conditional: stop the program only if a certain condition becomes true.
**Step Over**
Execute current statement without entering lower scope code.
- Eclipse: F6, ![arrow](image)
- NetBeans: F8, ![arrow](image)

**Step Into**
Execute next statement in lower scope code.
- Eclipse: F5, ![arrow](image)
- NetBeans: F7, ![arrow](image)

**Step Out – Step Return**
Complete code at this scope and return to higher scope.
- Eclipse: F7, ![arrow](image)
- NetBeans: <command>F7, ![arrow](image)

**Continue - Resume**
Continue until next break point or end of program.
- Eclipse: F8, ![play](image)
- NetBeans: F5, ![play](image)
When the program stops at a break point you can:

- Examine the value of variables
- Modify the value stored in variables
- Add, delete break points
- Modify condition for break points