Memory Models

Part 1: Primitive data

By the end of this video you will be able to…

- Draw memory models for reasoning about variable values for primitive type data
- Update memory models to trace the state of the variables in Java code

Code tracing warm up

```
int var1;
var1 = 52;
int var2;
var2 = var1;
var1 = 127;
System.out.println("var1 is " + var1 +
                   ", var2 is " + var2);
```

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int var1;
var1 = 52;
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Variable declaration: draw a box and label it with the variable's name

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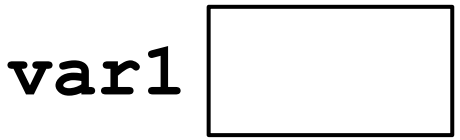

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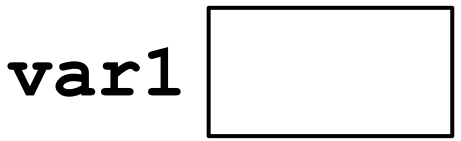
Variable assignment: put the value of the right hand side (RHS) into the box for the variable on the left hand side (LHS)



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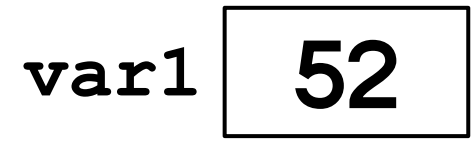

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var1 = 52;
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var2 = var1;
var1 = 127;
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                   ", var2 is " + var2);
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Variable assignment: put the value of the right hand side (RHS) into the box for the variable on the left hand side (LHS)

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int var1;
var1 = 52;
int var2;
var2 = var1;
var1 = 127;
System.out.println("var1 is " + var1 +
                   ", var2 is " + var2);
```

var1 is 127, var2 is 52