

# Visualizing Assignment Statements

On the Resources page is a link to a Python Visualizer that follows the model we use to draw pictures of computer memory.

Consider this code:

```
x = 1
y = x + 2
x = 7
```

When we trace this in the visualizer and click button Forward twice, this is the result:

1 x = 1

→ 2 y = x + 2

→ 3 x = 7

Edit code

<< First < Back Step 3 of 3 Forward > Last >>

→ line that has just executed

→ next line to execute

Frames

Global variables

x id1

y id2

Objects

id1:int 1

id2:int 3

Clicking Forward once more results in this:

1 x = 1

2 y = x + 2

→ 3 x = 7

Edit code

<< First < Back Program terminated Forward > Last >>

→ line that has just executed

→ next line to execute

Frames

Global variables

x id3

y id2

Objects

id2:int 3

id3:int 7

Notice that y's value did not change during this step.

Here is [a link to the Python Visualizer](#) containing this code so that you can explore this yourself. **We strongly encourage you to step forward and backward through this program until you understand every step of execution.**