

Snaplet Examples

Fundamentals of Programming 1.5

This document provides example solutions to diagramming problems using Snaplet. The following two programs are diagrammed and shown below. Each program is given first (on a separate page from the solution) in case you would like to try the problem yourself before comparing with the given solution.

Example 1

Example 2

Example 1 Solution

Example 2 Solution

Example 1

Diagram the following code:

```
1 def foo(x, y):
2     z = bar(x)
3     z = z + bar(y)
4     return z
5 def bar(x):
6     return x + 2
7 a = foo(5, 2)
```

(version without line numbers for easy copying)

```
def foo(x, y):
    z = bar(x)
    z = z + bar(y)
    return z
def bar(x):
    return x + 2
a = foo(5, 2)
```

Example 2

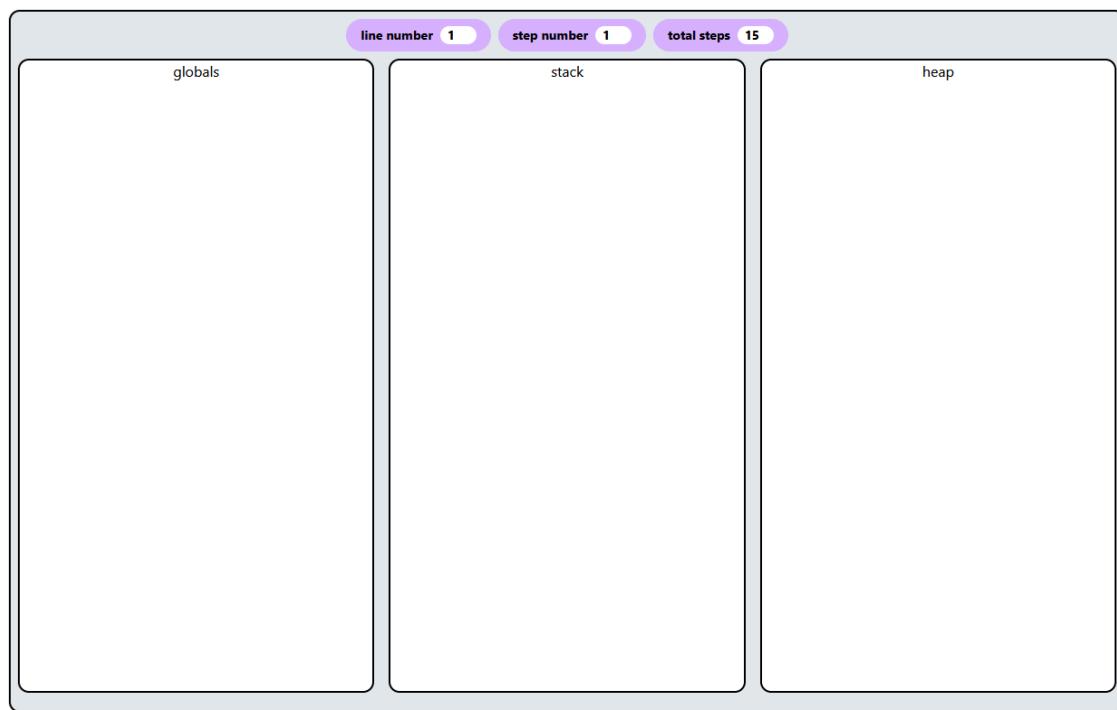
Diagram the following code:

```
1 table = [['hello', 'world'], ['a', 'b']]
2 table[0][1] = table[1][0]
3 new_row = ['new', 'row']
4 table.append(new_row)
5 test = table[2][0]
```

(version without line numbers for easy copying)

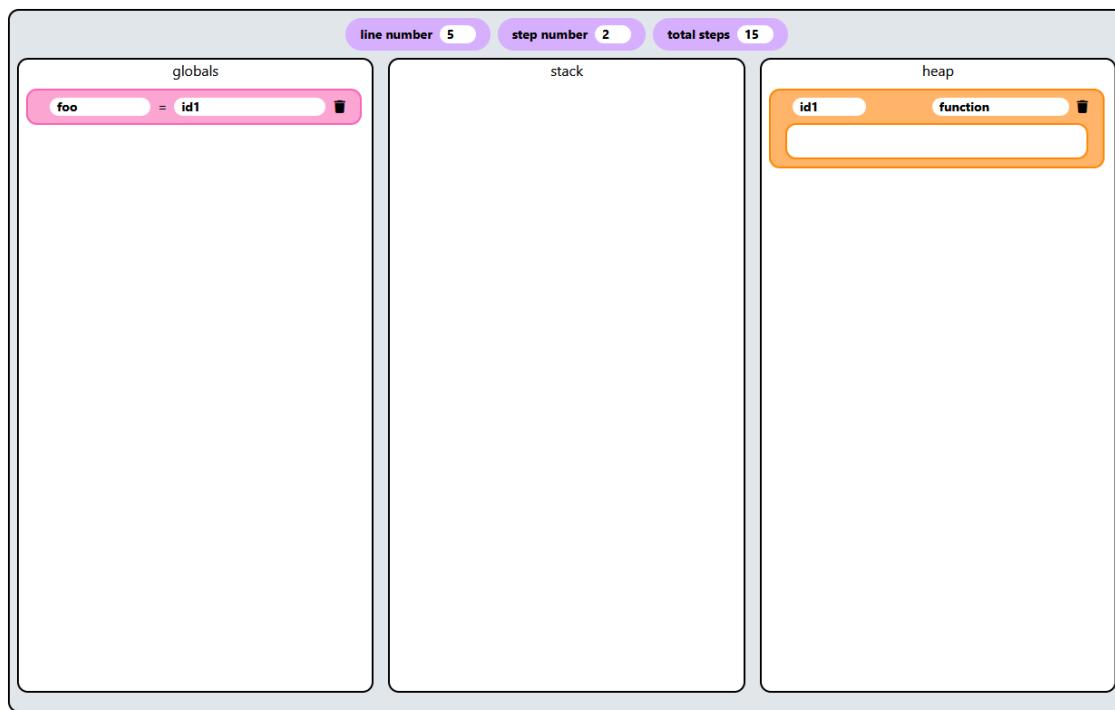
```
table = [['hello', 'world'], ['a', 'b']]
table[0][1] = table[1][0]
new_row = ['new', 'row']
table.append(new_row)
test = table[2][0]
```

Example 1 Solution — Step 1



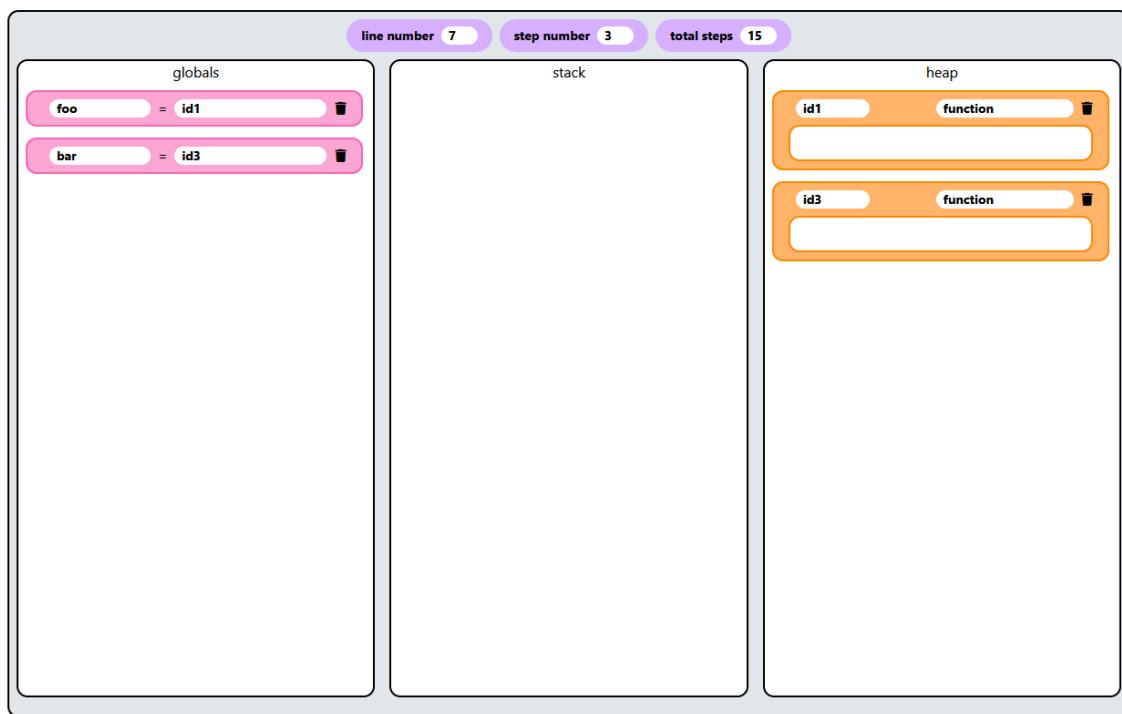
Example 1 Step 1

Example 1 Solution — Step 2



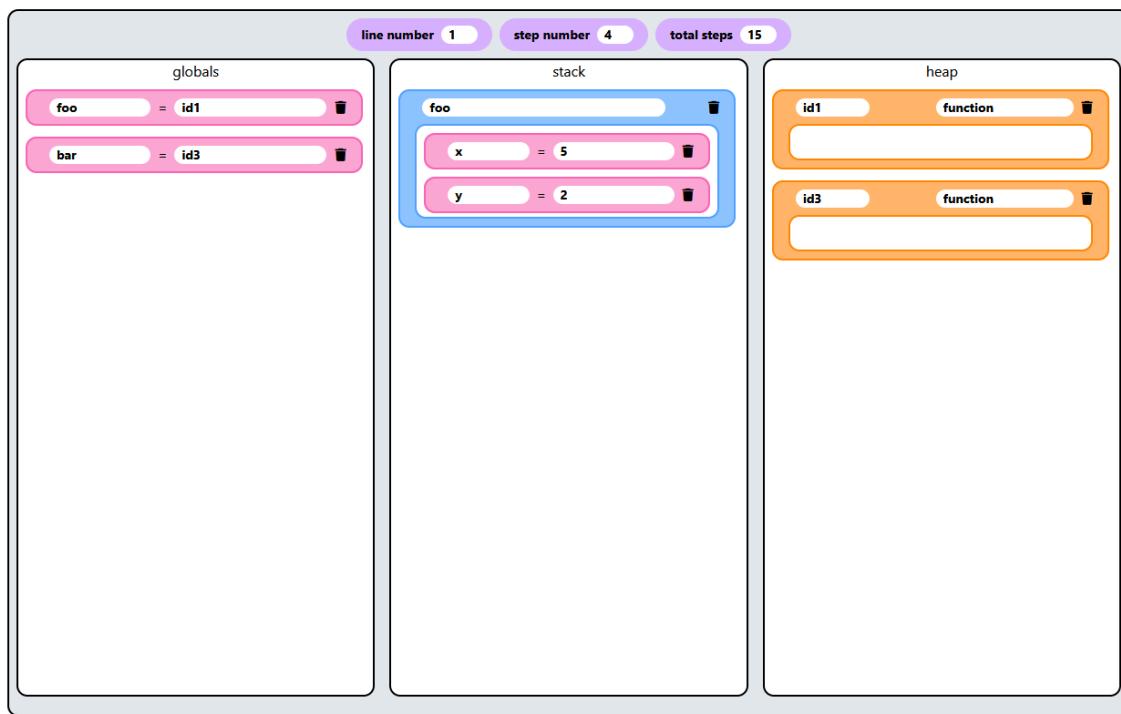
Example 1 Step 2

Example 1 Solution — Step 3



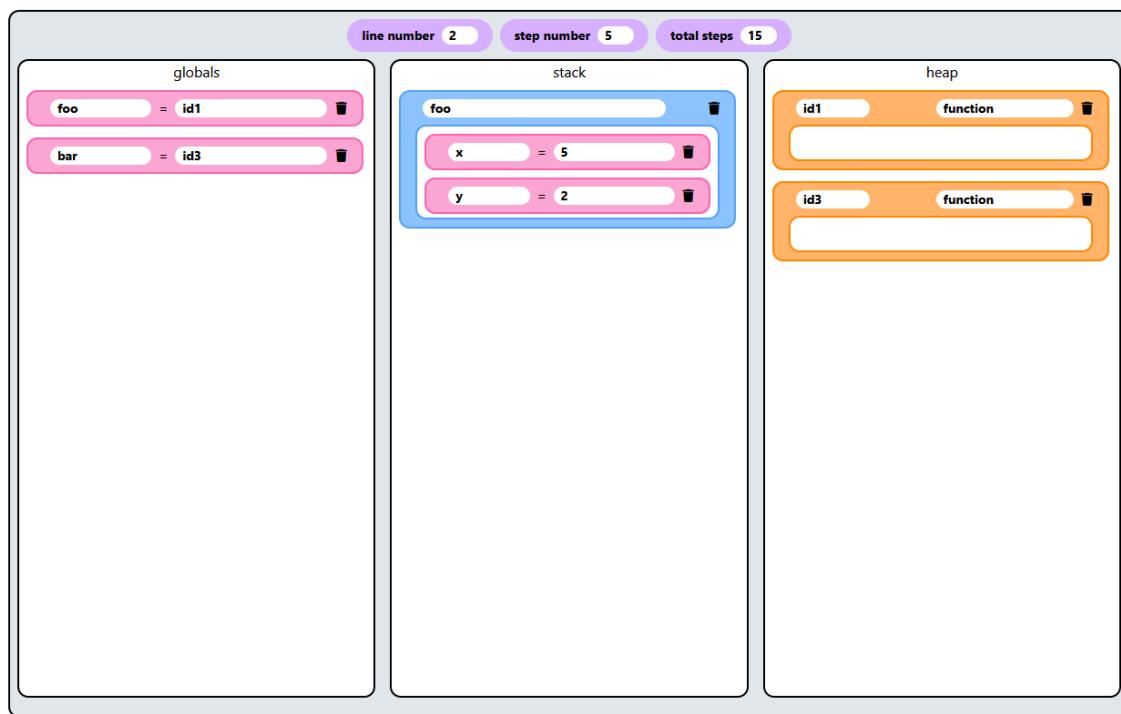
Example 1 Step 3

Example 1 Solution — Step 4



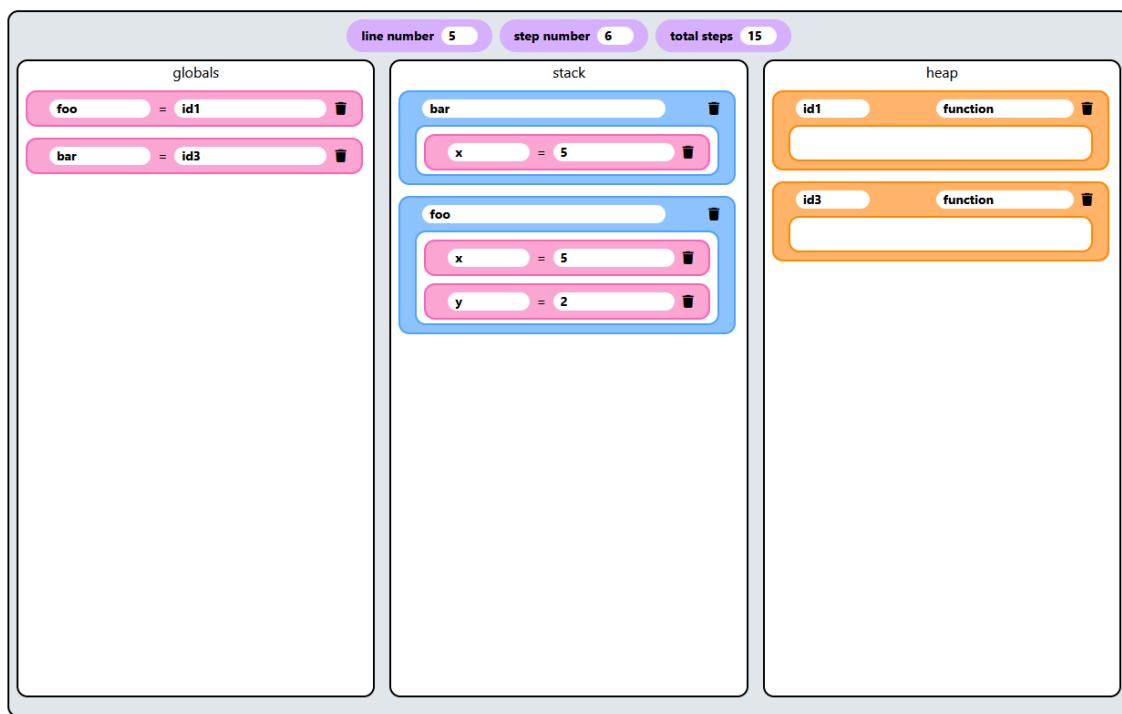
Example 1 Step 4

Example 1 Solution — Step 5



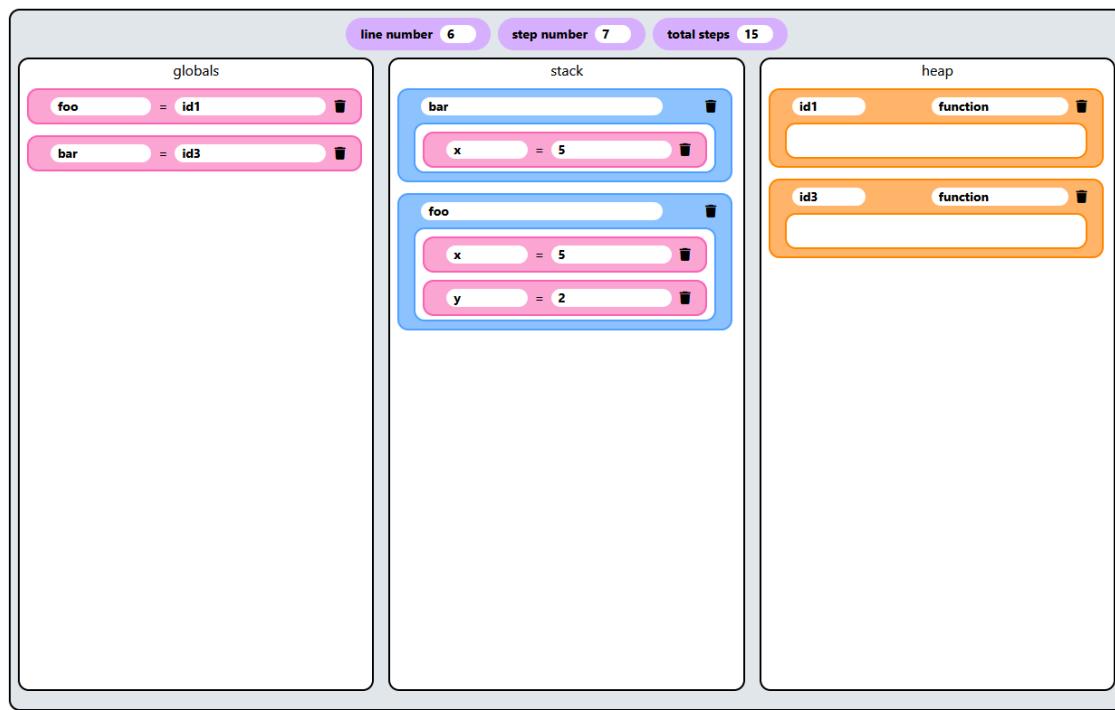
Example 1 Step 5

Example 1 Solution — Step 6



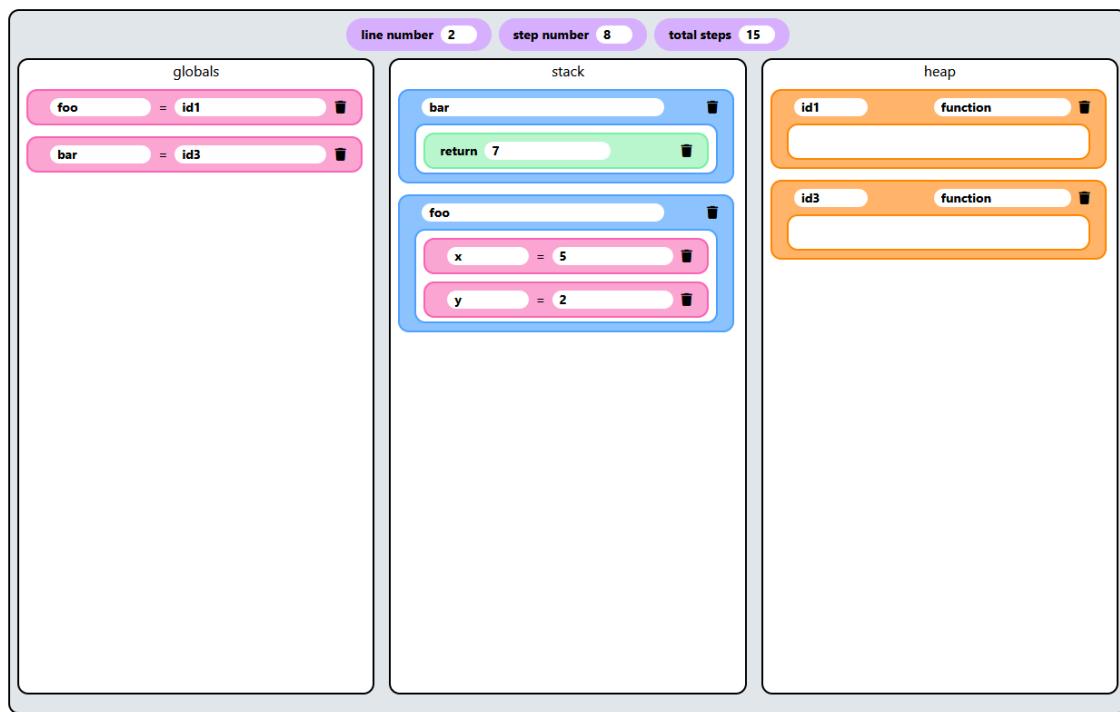
Example 1 Step 6

Example 1 Solution — Step 7



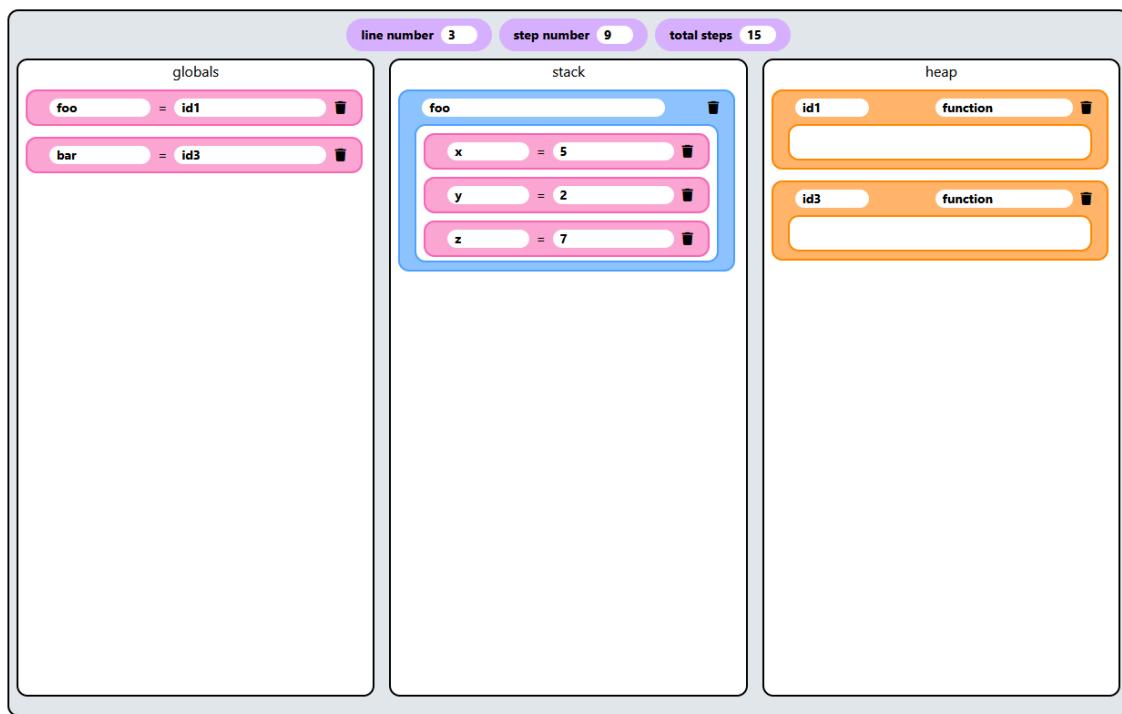
Example 1 Step 7

Example 1 Solution — Step 8



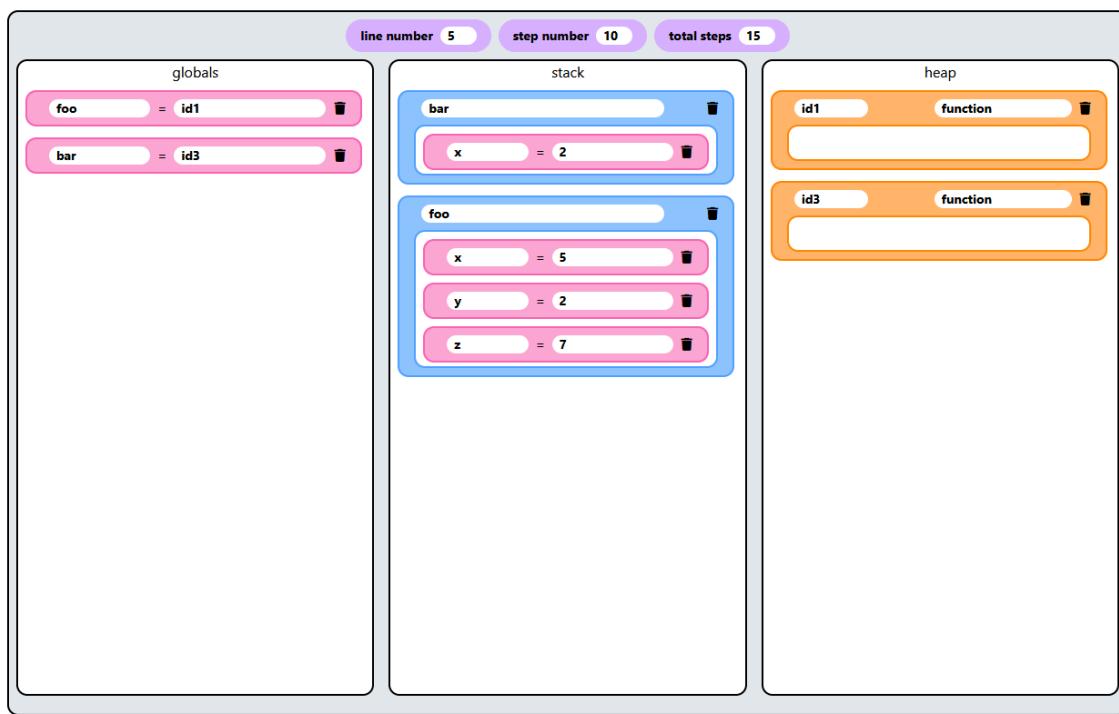
Example 1 Step 8

Example 1 Solution — Step 9



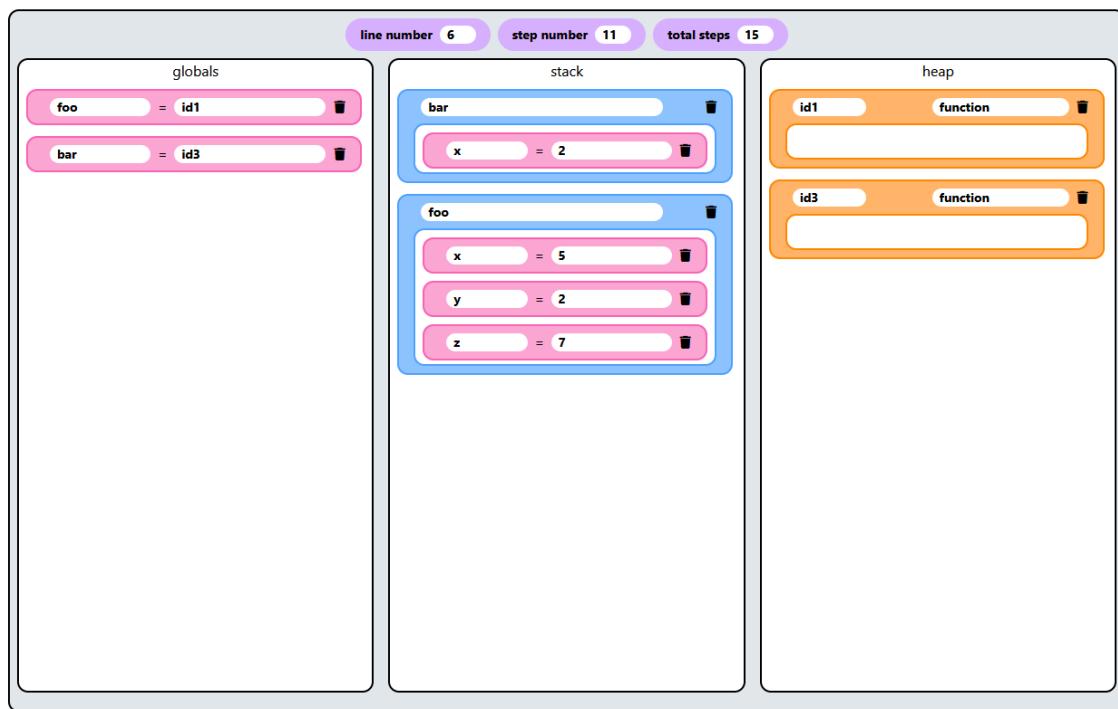
Example 1 Step 9

Example 1 Solution — Step 10



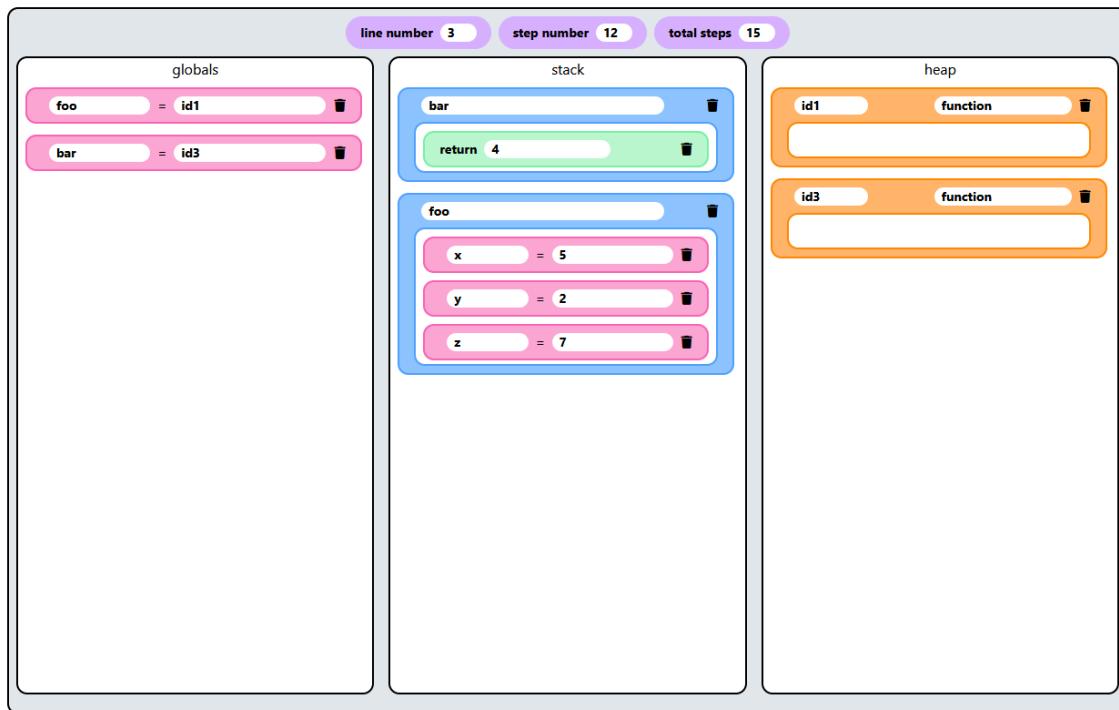
Example 1 Step 10

Example 1 Solution — Step 11



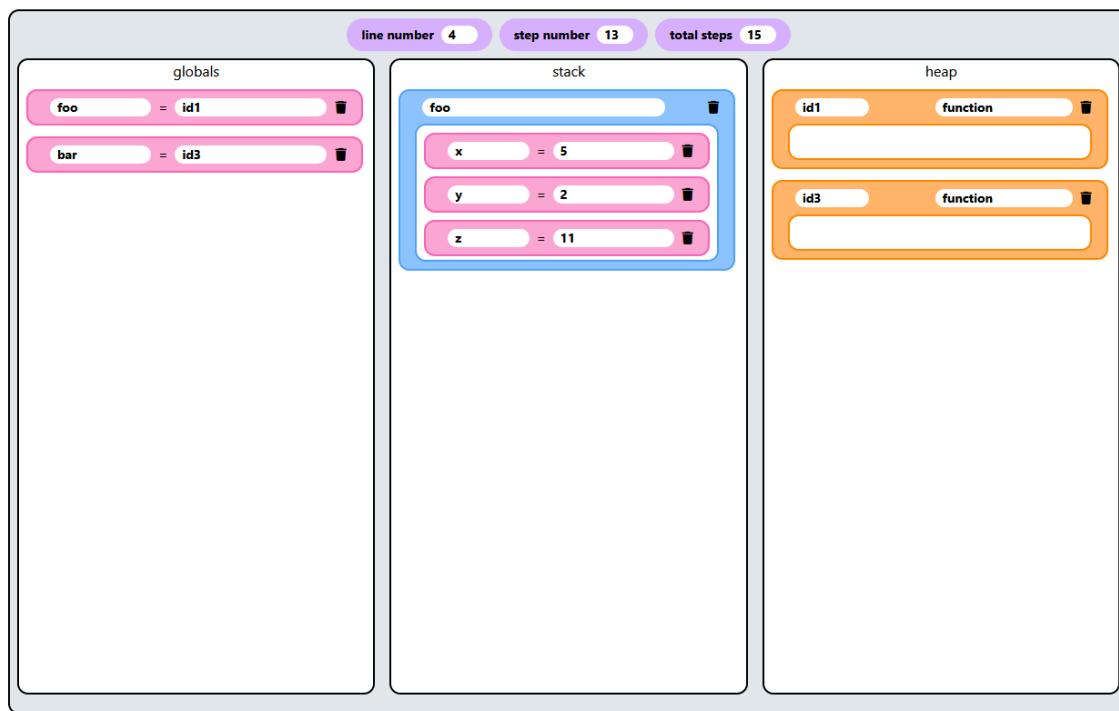
Example 1 Step 11

Example 1 Solution — Step 12



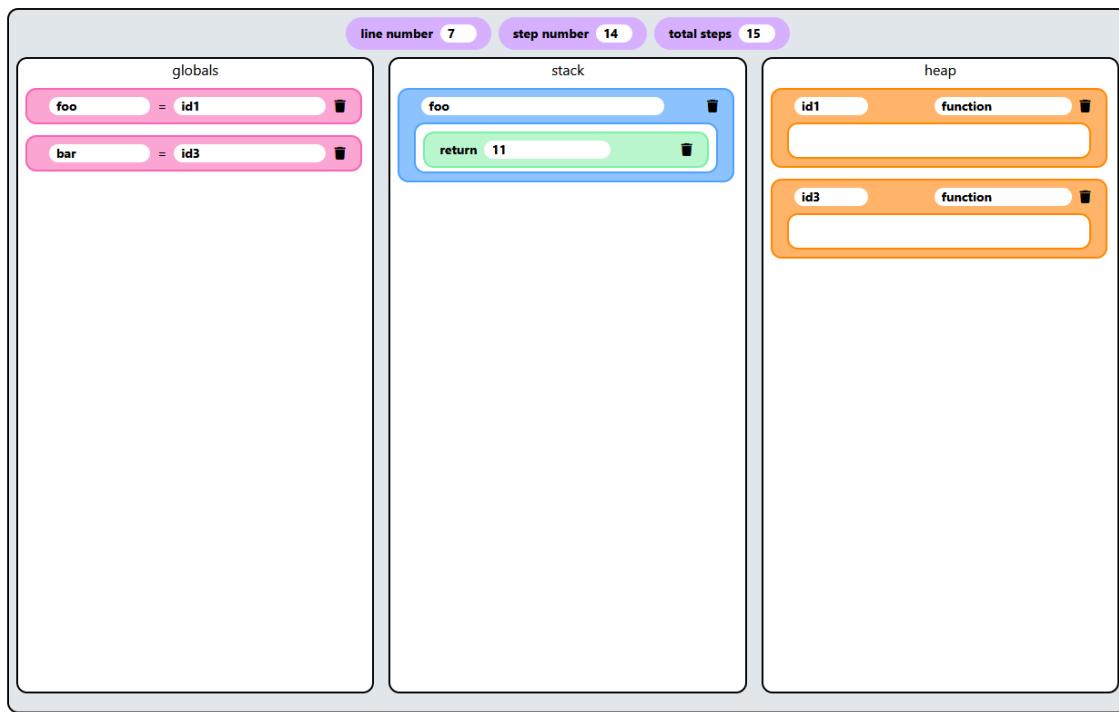
Example 1 Step 12

Example 1 Solution — Step 13



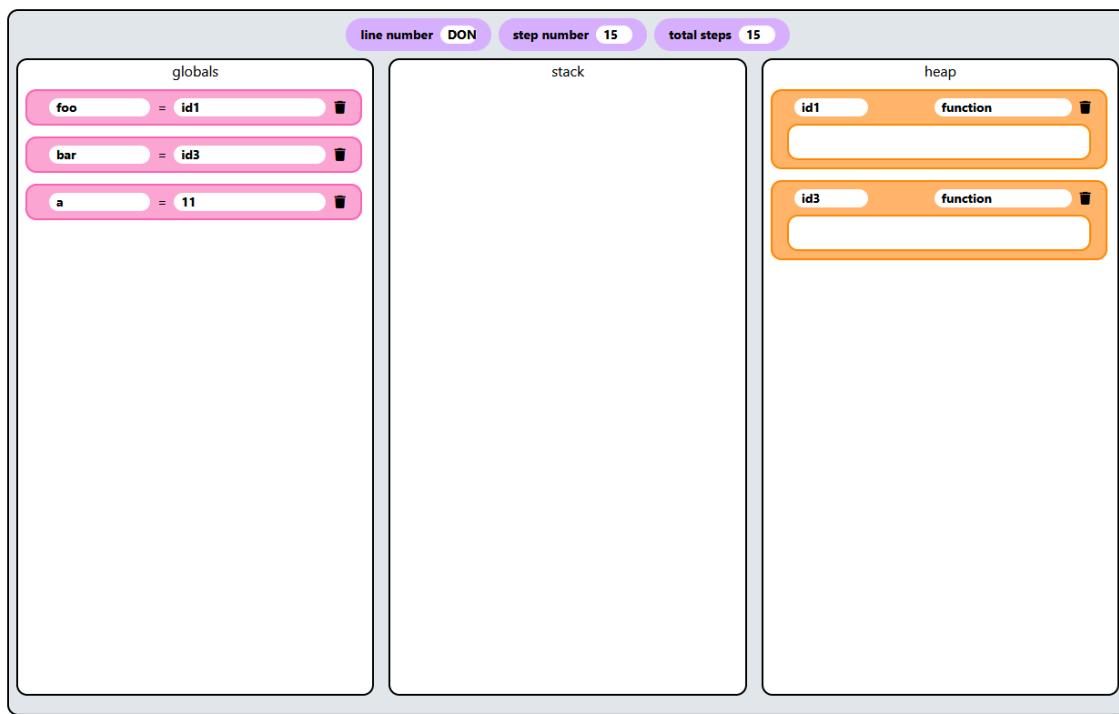
Example 1 Step 13

Example 1 Solution — Step 14



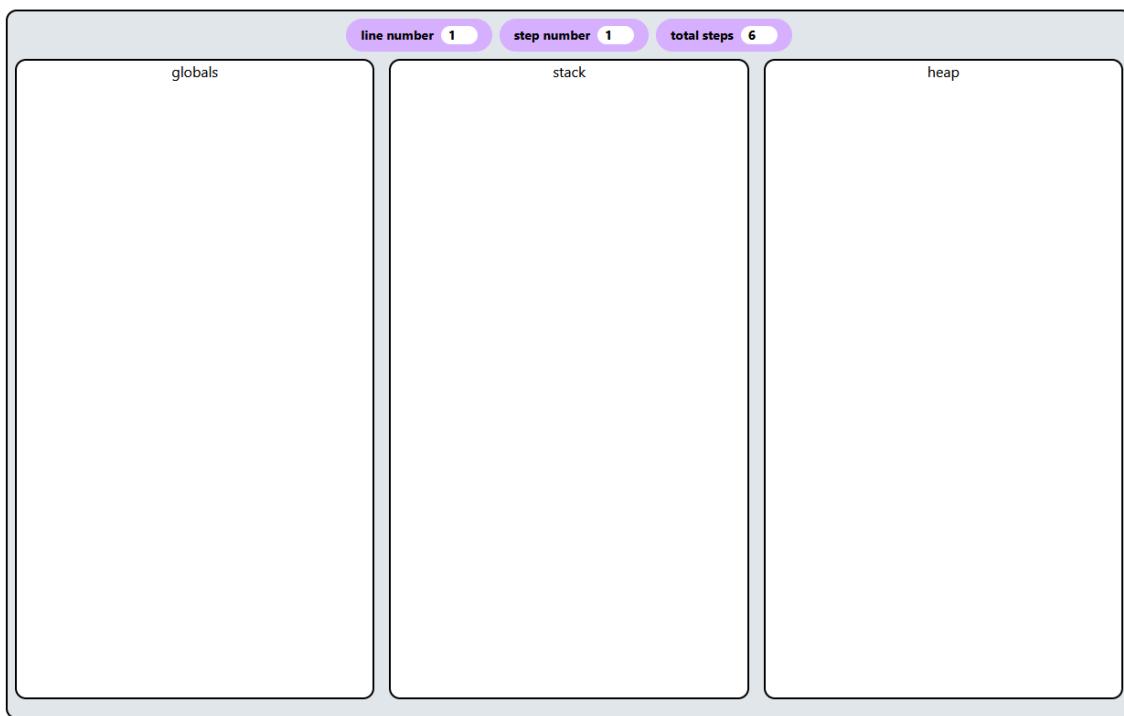
Example 1 Step 14

Example 1 Solution — Step 15 (DONE)



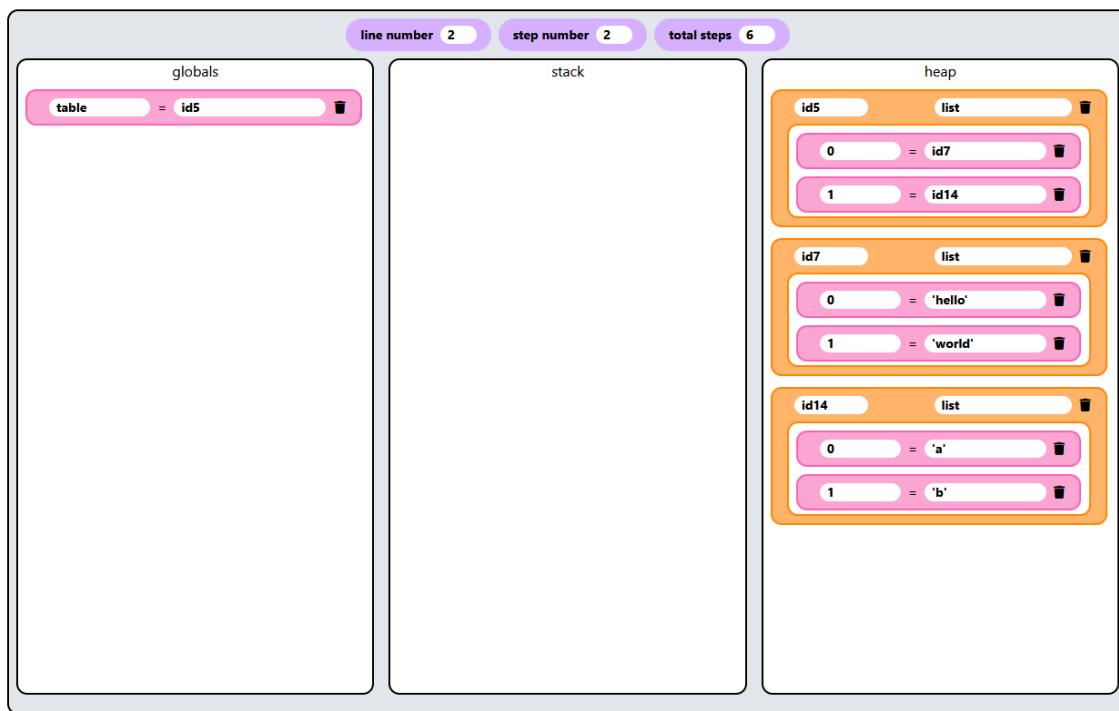
Example 1 Step 15

Example 2 Solution — Step 1



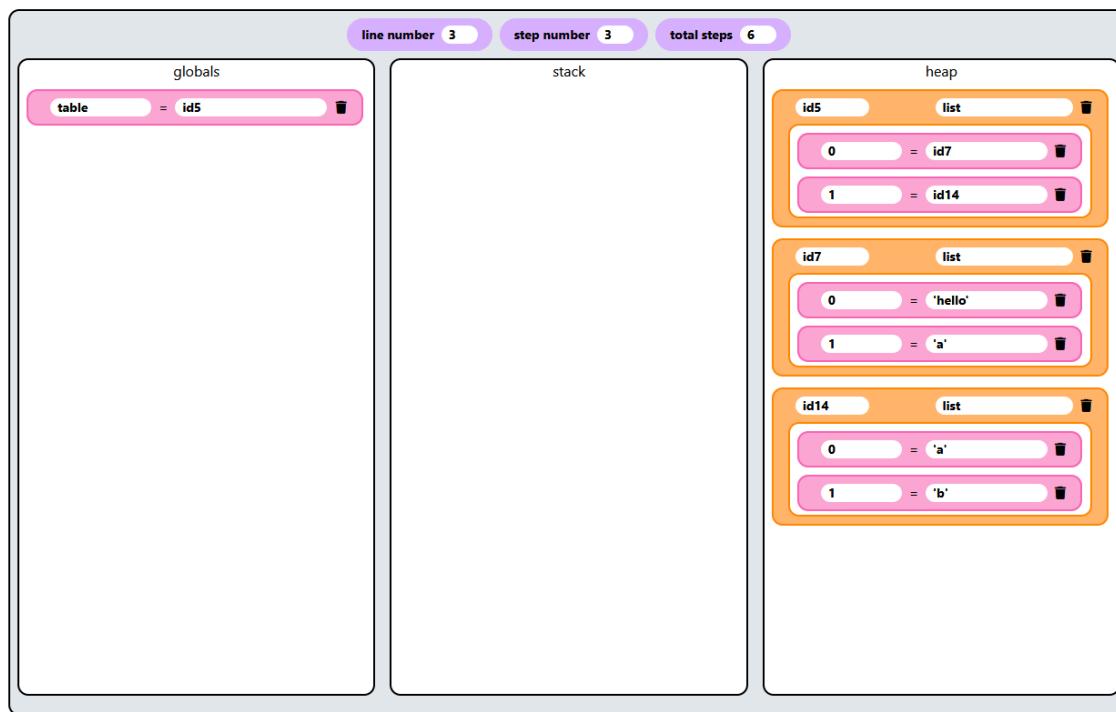
Example 2 Step 1

Example 2 Solution — Step 2



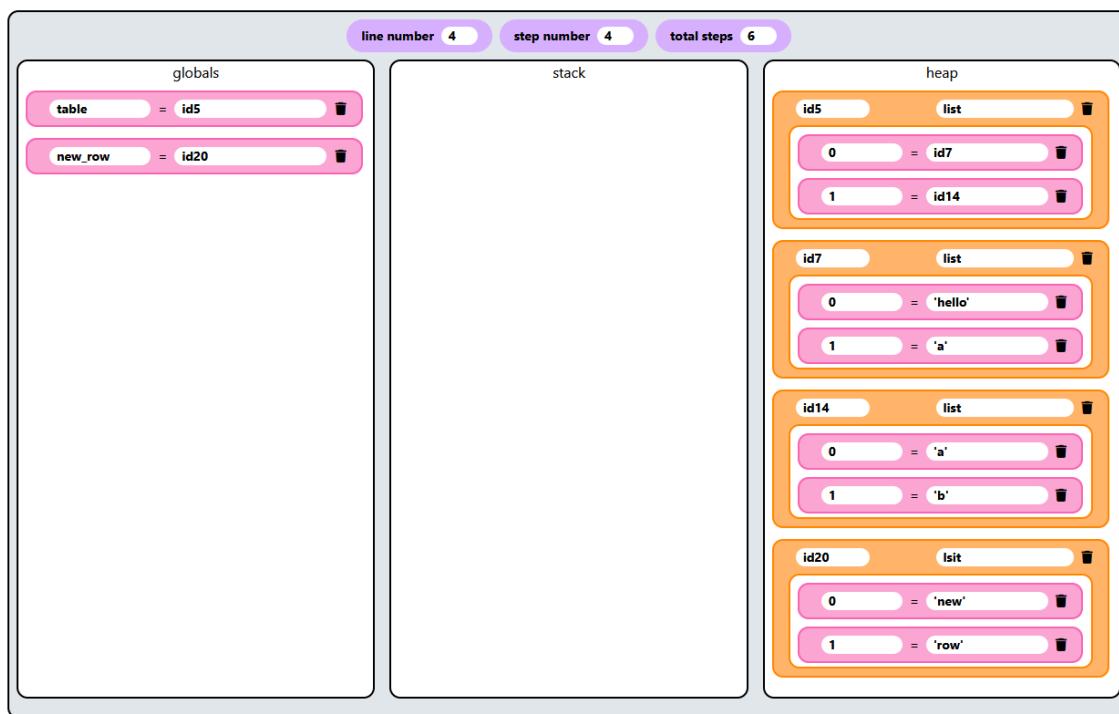
Example 2 Step 2

Example 2 Solution — Step 3



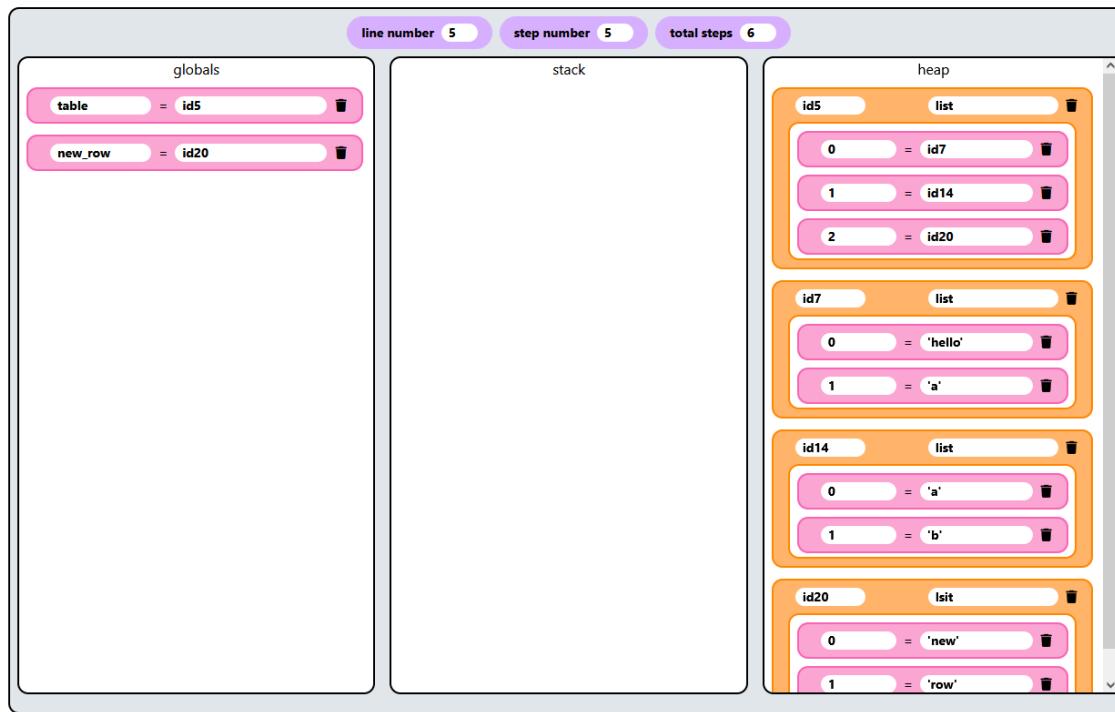
Example 2 Step 3

Example 2 Solution — Step 4



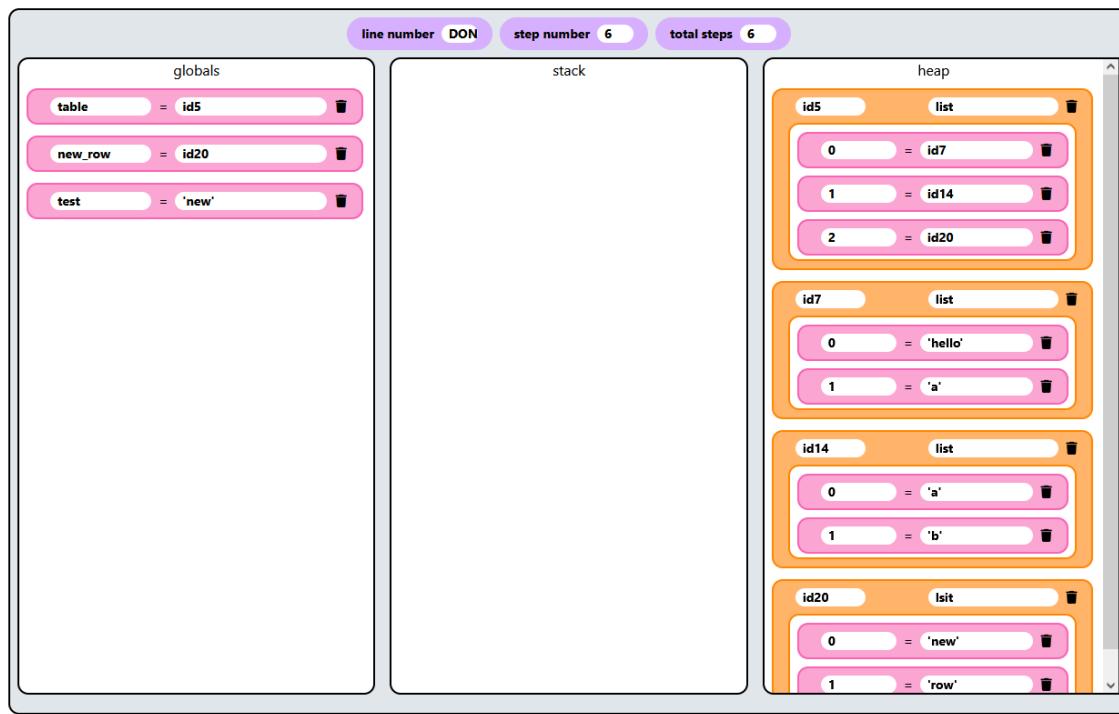
Example 2 Step 4

Example 2 Solution — Step 5



Example 2 Step 5

Example 2 Solution — Step 6 (DONE)



Example 2 Step 6