

4.12 ARRAYS

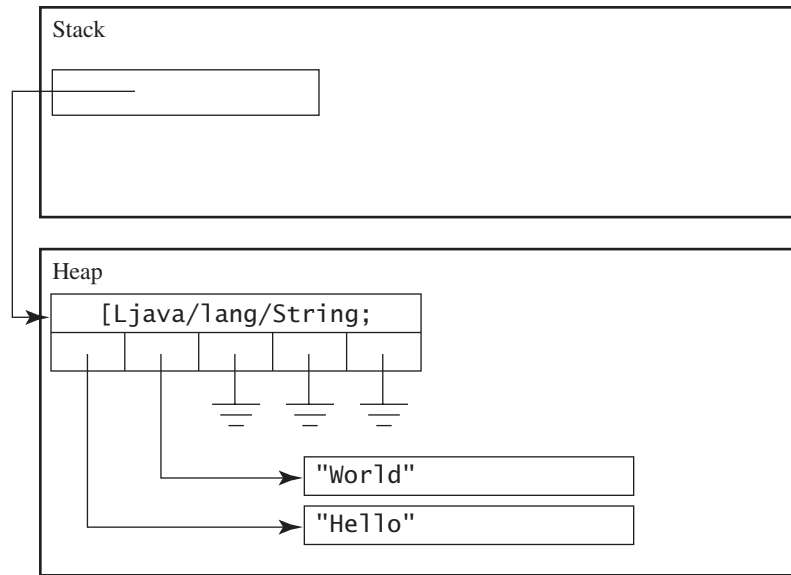


FIGURE 4.9: After setting array slots 0 and 1

```

dup                ; Dup the array reference
ldc "Hello"        ; Store hello
iconst_0           ; Into slot 0
aastore

; The array reference is still on the stack
dup
ldc "World"        ; Store hello
iconst_1           ; Into slot 1
aastore

```

To get elements out of the array, you use `aaload`. To get the reference to "World" on the stack, use

```

iconst_1           ; Push int 1
aaload             ; Load array slot 1

```

Now the memory picture looks like the diagram in Figure 4.10. The top of the stack has been replaced with a reference to the `World` string.

You can think of an array as being a little like an object whose fields have numbers instead of names. Whenever you store into an array, you must meet the