



6.1: A STRING IS A SEQUENCE



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A string is a sequence of characters. You can access the characters one at a time with the bracket operator:

```
>>> fruit = 'banana'
>>> letter = fruit[1]
```

The second statement extracts the character at index position 1 from the fruit variable and assigns it to the letter variable.

The expression in brackets is called an *index*. The index indicates which character in the sequence you want (hence the name).

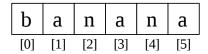
But you might not get what you expect:

```
>>> print(letter)
a
```

For most people, the first letter of "banana" is b, not a. But in Python, the index is an offset from the beginning of the string, and the offset of the first letter is zero.

```
>>> letter = fruit[0]
>>> print(letter)
b
```

So b is the 0th letter ("zero-eth") of "banana", a is the 1th letter ("one-eth"), and n is the 2th ("two-eth") letter.



String Indexes

You can use any expression, including variables and operators, as an index, but the value of the index has to be an integer. Otherwise you get:

```
>>> letter = fruit[1.5]
TypeError: string indices must be integers
```