C H A P T E R 8

Strings

(some parts)

starting out with >>> **PYTHON**®

THIRD EDITION

TONY GADDIS

Topics

- **Basic String Operations**
- **String Slicing**
- **Testing, Searching, and Manipulating Strings**

Basic String Operations

- **Many types of programs perform operations on strings**
- **In Python, many tools for examining and manipulating strings**
  - Strings are sequences, so many of the tools that work with sequences work with strings

Accessing Individual Character in a String

- **To access an individual character in a string:**
  - Use a **for** loop

    for *character* **in** *string*:

    ```
    name = "Juliet"
    for ch in name:
          print(ch)
    ```

  - Use **while** loop with indexing
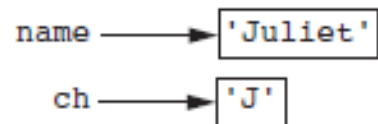   - Each character has an index specifying its position in the string, starting at 0
    - Format: *character = my_string[i]*

      ```
      name = "Juliet"
      index = 0
      while index <= len(name)-1
            print(name[index])
            index += 1
      ```

Figure 9-1 Iterating over the string `'Juliet'`

1st Iteration

```
for ch in name:
    print(ch)
```

name ⟶ `'Juliet'`

ch ⟶ `'J'`

Figure 9-2 String indexes

```
'R o s e s   a r e   r e d'
 ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑
 0 1 2 3 4 5 6 7 8 9 10 11 12
```

```
name = "Roses are red"
index = 0
while index < len(name)
    print(name[index])
    index += 1
```

```
OUTPUT:
R  -> index 0
o  -> index 1
s
e
s
   -> index 5
a          .
r          .
e          .

r
e
d    -> index 12
```

demo_stringLoops.py