5 Strings

Jin Wang,

MSIS, Rutgers

- 5 Strings
- 1. A string is a sequence
 - len function
 - String slices
- 2. Strings are immutable
 - 3. String methods
 - strip()
 - .title()
 - upper()
 - split()
- 4. Traversal with a for loop
- 5. Application 1: Searching
- 6. Application 2: Looping and counting
- 7. Practice questions

1. A string is a sequence

String in Topic 1

- Values in Quotation marks
- Small problem with quotation marks
- String concatenation
- String Repetition

Bracket operator

```
>>> s = "Hello"
>>> letter = s[1]
>>> letter
```

Which is the value of letter

len function

```
>>> s = "Hello"
>>> len(s)
5
```

String slices

```
>>> s = "Hello, Jin!"
>>> s[0:5]
```

2. Strings are immutable

3. String methods

.strip()

• strip all whitespaces on the left and right of a string.

.title()

• Capitalize the first letter of each word

.upper()

• Capitalize all letters

.split()

• split a string into a list

4. Traversal with a for loop

5. Application 1: Searching

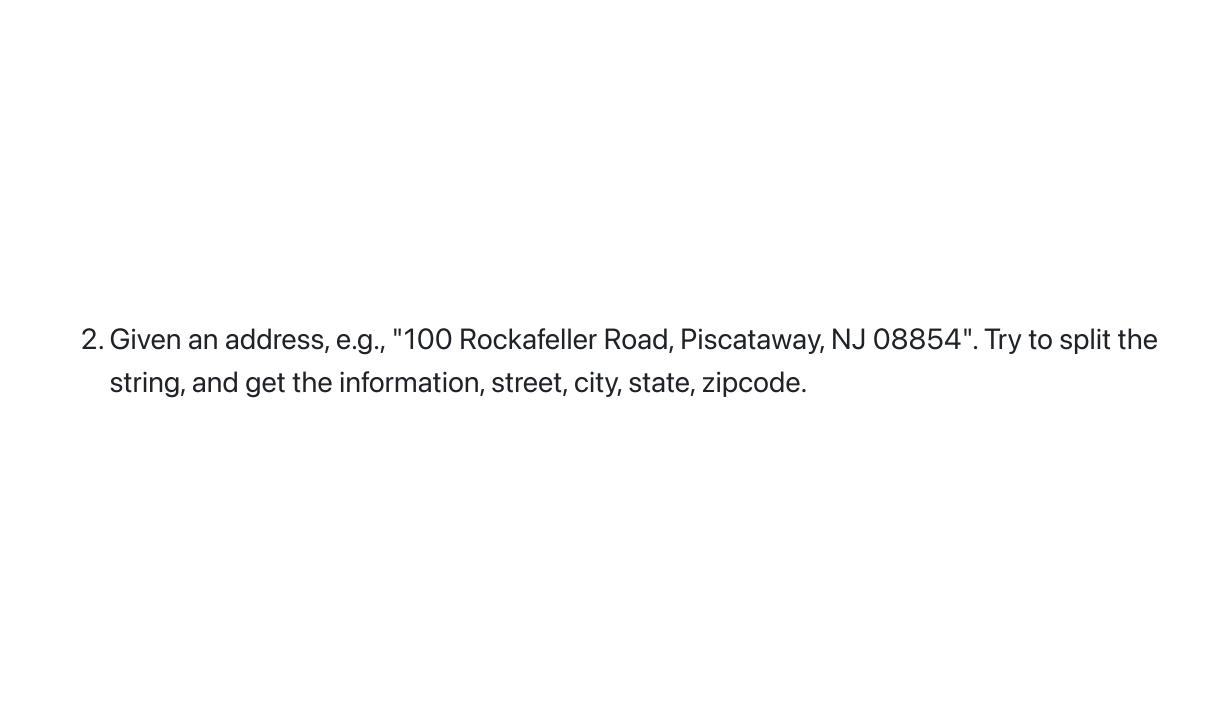
• find out whether there is a particular character in a string

6. Application 2: Looping and counting

• count the number of times a letter appears in a string.

7. Practice questions

1. Use two input function twice, one for inputing first name and another one for last name. Use <code>.strip()</code> and <code>.title()</code> methods to correct user's input. Then print "Last name, First name". For example, input: "jin" as first name, "wang" as last name, the output would be "Wang, Jin".



3. Create a function, which takes a list of names and print "Hello, " together with each name. For example, taking a list, ['Mark', 'Peter', 'John'], the function would print

```
Hello, Mark
Hello, Peter
Hello, John
```

4. Create a function, named find_repetition, to find out whether there are repetitive letters in a word. For example, For the word "Rutgers", the function returns True since the letter 'r' is repeated. (So it means we need to ignore the cases, 'R' is considered as a repetition of 'r'.) For the word "RBS", the function returns False.