Think Python:
Chapters 8 & 9

What is output by the interactive Python session below?

```
>>> title = "Hush, Hush, Sweet Charlotte"
>>> title[1]
```

What is output by the interactive Python session below?

```python
>>> title = "Hush, Hush, Sweet Charlotte"
>>> title[1]
```

'u'

What is the name for the *1* inside the square brackets?

```
>>> title = "Hush, Hush, Sweet Charlotte"
>>> title[1]
```

What is the name for the 1 inside the square brackets?

```
>>> title = "Hush, Hush, Sweet Charlotte"
>>> title[1]
```

index

What type can an index be?

What type can an index be?

integer

What is output by the interactive Python session below?

```
>>> title = "Hush, Hush, Sweet Charlotte"
>>> title[-1]
```

What is output by the interactive Python session below?

```
>>> title = "Hush, Hush, Sweet Charlotte"
>>> title[-1]
```

'e'

What is output by the interactive Python session below?

```
>>> title = "Hush, Hush, Sweet Charlotte"
>>> title[len(title)]
```

What is output by the interactive Python session below?

```
>>> title = "Hush, Hush, Sweet Charlotte"
>>> title[len(title)]
```

```
Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
IndexError: string index out of range
>>>
```

What's the smallest fix that could be made to the second line below in order to access the last character of title?

```
>>> title = "Hush, Hush, Sweet Charlotte"
>>> title[len(title)]
```

What's the smallest fix that could be made to the second line below in order to access the last character of title?

```
>>> title = "Hush, Hush, Sweet Charlotte"
>>> title[len(title)]
```

```
>>> title[len(title)-1]
'e'
```

What's the term for a segment of a string?

What's the term for a segment of a string?

slice

What is output by the interactive Python session below?

```
>>> title = "Hush, Hush, Sweet Charlotte"
>>> title[4:8]
```

What is output by the interactive Python session below?

```
>>> title = "Hush, Hush, Sweet Charlotte"
>>> title[4:8]
```

', Hu'

What is output by the interactive Python session below?

```python
>>> title = "Hush, Hush, Sweet Charlotte"
>>> title[:10]
```

What is output by the interactive Python session below?

```
>>> title = "Hush, Hush, Sweet Charlotte"
>>> title[:10]
```

'Hush, Hush'

What is output by the interactive Python session below?

```
>>> title = "Hush, Hush, Sweet Charlotte"
>>> title[18:]
```

What is output by the interactive Python session below?

```
>>> title = "Hush, Hush, Sweet Charlotte"
>>> title[18:]
```


'Charlotte'

What is output by the interactive Python session below?

```
>>> title = "Hush, Hush, Sweet Charlotte"
>>> title[12:12]
```

What is output by the interactive Python session below?

```
>>> title = "Hush, Hush, Sweet Charlotte"
>>> title[12:12]
```

```
"
```

What's the minimal fix to make the following session display the S?

```
>>> title = "Hush, Hush, Sweet Charlotte"
>>> title[12:12]
```

What's the minimal fix to make the following session display the S?

```
>>> title = "Hush, Hush, Sweet Charlotte"
>>> title[12:12]




>>> title[12:13]
'S'
>>>
```

Strings are _____, meaning they cannot be changed.

```
>>> title = "Hush, Hush, Sweet Charlotte"
>>> title[12] = 's'
Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
TypeError: 'str' object does not support item assignment
>>>
```

Strings are _____, meaning they cannot be changed.

```
>>> title = "Hush, Hush, Sweet Charlotte"
>>> title[12] = 's'
Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
TypeError: 'str' object does not support item assignment
>>>
```

immutable

What's output by this code?

```
>>> title = "Hush, Hush, Sweet Charlotte"
>>> title.find('S')
```

What's output by this code?

```
>>> title = "Hush, Hush, Sweet Charlotte"
>>> title.find('S')
```

12

What's the term for *find* in this code?

```
>>> title = "Hush, Hush, Sweet Charlotte"
>>> title.find('S')
```

What's the term for *find* in this code?

```
>>> title = "Hush, Hush, Sweet Charlotte"
>>> title.find('S')
```

method

A(n) _____ is a method call.

A(n) _____ is a method call.

invocation

What is output by the code below?

```
>>> title="Hush, Hush, Sweet Charlotte"
>>> 'Hush' in title
```

What is output by the code below?

```
>>> title="Hush, Hush, Sweet Charlotte"
>>> 'Hush' in title
```

True

What is output by the code below?

```
>>> title="Hush, Hush, Sweet Charlotte"
>>> 'A' in title
```

What is output by the code below?

```
>>> title="Hush, Hush, Sweet Charlotte"
>>> 'A' in title
```
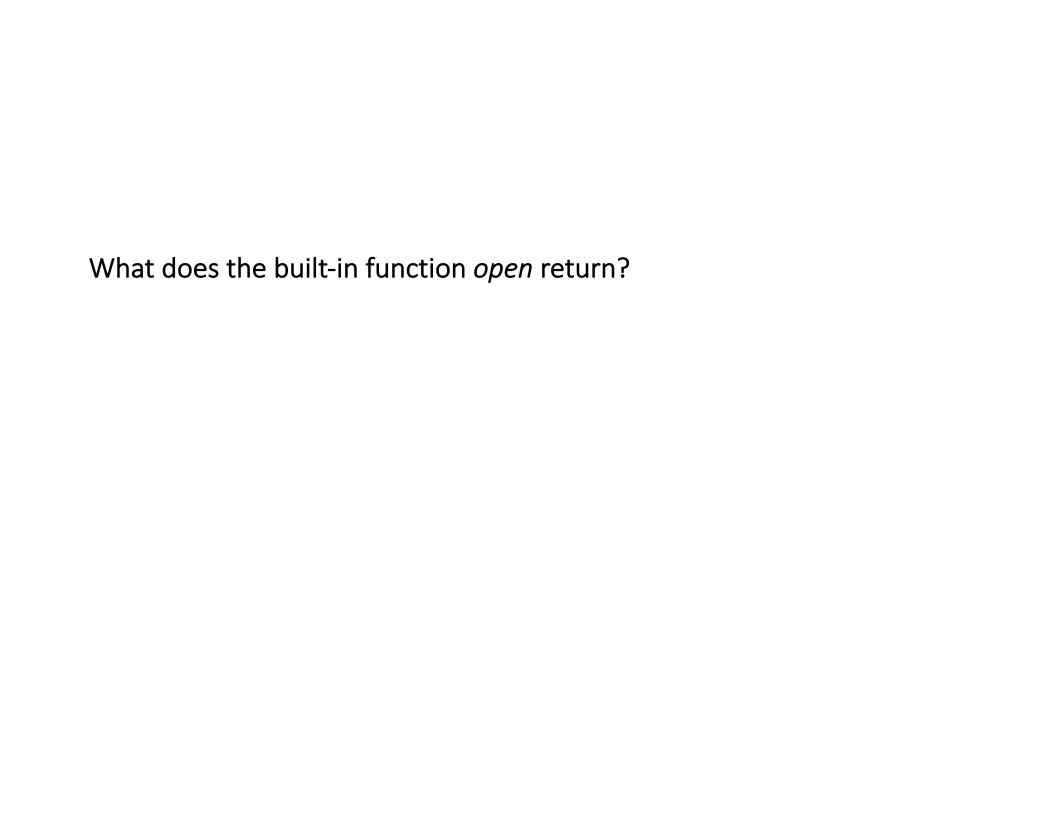
False

In-class exercise: Rewrite our Boolean palindrome function to accept a single string of any length as an argument rather than five single-char string arguments. Volunteer needed to be our keyboarder up front!

In-class exercise: Rewrite our Boolean palindrome function to accept a single string of any length as an argument rather than five single-char string arguments.

```python
def palindrome(string):
    i=len(string)-1
    reverse = ""
    while (i >= 0):
        reverse = reverse + string[i]
        i = i - 1
    return string == reverse



s = input("Enter a string :")
print(palindrome(s))
```

What does the built-in function *open* return?

What does the built-in function *open* return?

A file object

What method reads a single line of a file?

What method reads a single line of a file?

readline()

What method can be used to remove white space (blanks, carriage returns, newline chars, etc.) from a string?

What method can be used to remove white space (blanks, carriage returns, newline chars, etc.) from a string?

strip