

Python Strings

Introduction to Computer Science!



Review: Python Variables

```
>> x = 41
>> y = x + 1
>> x = x + y
>> y
?? (1)
>> x
??
```

What value is displayed for y at ??(1)?

- A. 41
- B. 42
- C. 83
- D. 84

x

y

Strings

- A string is a sequence of characters
- Anything within single or double quotes: E.g “UCSB”, ‘73\$505abc’
- What about an empty string?
- What if a string includes a quote e.g. UC”SB?
- How can we get the length of the string?

String operations

- Concatenation: +
- Repetition: *
- Parse and extract
- Check if some character is in a string
- Compare == != < >

String operations: Concatenate

- Concatenation: `str + str`
- What is “Hello” + “ World”?

String operations: Repetition

- Repeat: `str * int`
- What is `"Hello" * 3`?

What is the value of s after the following code runs?

```
s = 'abc'
```

```
s = 'd' * 3 + s
```

```
s = s + 'e' * 2
```

- A. 'abcd3e2'
- B. 'abcdddabc'
- C. 'dddabcee'
- D. 'abcdddabce2'
- E. Error

Parsing strings...

Parsing means extracting certain pieces from a string

```
schoolName = "UCSB"
```

- Print the first character
- Print the last character
- Print the second character

Indexing in strings

Positions in a string start at index 0

```
schoolName = "UCSB"
```

```
>>> schoolName[0]
```

```
>>> schoolName[1]
```

```
>>> schoolName[2]
```

```
>>> schoolName[4]
```

Word Play

Write code that produces the following (different) output for the inputs “Diba” and “Eric”

What is your name? Diba

Hi Dibaaaaaa !!!!

What is your name? Eric

Hi Ericccccc !!!!

Extracting substrings

- Also known as slicing!

```
>>> schoolName = "UCSB"
```

```
>>> print(schoolName[1:3])
```

```
>>> print(schoolName[:3])
```

```
>>> print(schoolName[:-1])
```

- Comparison (in, not in):

```
>>> "CS" in schoolName
```

```
>>> "CS" not in schoolName
```

More word play

Write code that produces the following (different) output for the inputs “Diba” and “Eric”

Run 1:

What is your name? Diba

Hi Dibaaaaaa !!!!

I meant hi Diiiiiba

Sorry I have a cold, Biba

Run 2:

What is your name? Eric

Hi Ericcccc !!!!

I meant hi Errrrric

Sorry I have a cold, Iric