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Welcome (/en/Welcome) / Basic String Operations

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## **Basic String Operations**

Strings are bits of text. They can be defined as anything between quotes:

```
script.py()

1  | bstring = "Hello world!"

2  astring2 = 'Hello world!'

Run
```

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As you can see, the first thing you learned was printing a simple sentence. This sentence was stored by Python as a string. However, instead of immediately printing strings out, we will explore the various things you can do to them. You can also use single quotes to assing a string. However, you will face problems if the value to be assigned itself contains single quotes. For example to assign the string in these bracket(single quotes are ' ') you need to use double quotes only like this

```
script.py()

1 | pstring = "Hello world!"
2 | print("single quotes are ' '")
3 | print(len(astring))

Run
```

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That prints out 12, because "Hello world!" is 12 characters long, including punctuation and spaces.

```
script.py()

1  | astring = "Hello world!"
2  print(astring.index("o"))

Run
```

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That prints out 4, because the location of the first occurrence of the letter "o" is 4 characters away from the first character. Notice how there are actually two o's in the phrase - this method only recognizes the first.

But why didn't it print out 5? Isn't "o" the fifth character in the string? To make things more simple. Python (and most other programming languages) start things at 0 instead of 1. So the index of "@opgright © LearnPython.org. Read our Terms of Use (/tos) and Privacy Policy (/privacy)

<pre>script.py() 1</pre>	In [1]:	(https://github.com/datacamp/datacamp-light)	
Run •			
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For those of you using silly fonts, that is a lowercase L, not a new	umber one. This counts the number of I's i	n the string. Therefore, it should print 3.	
<pre>script.py() 1   astring = "Hello world!" 2   print(astring[3:7])</pre>	IPython Shell () In [1]:	(https://github.com/datacamp/datacamp-light)	
Run •			
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This prints a slice of the string, starting at index 3, and ending a math inside those brackets easier.	at index 6. But why 6 and not 7? Again, mo	ost programming languages do this - it makes doing	
f you just have one number in the brackets, it will give you the you a slice from the start to the number you left in. If you leave	•	•	
You can even put negative numbers inside the brackets. They a 3rd character from the end".	are an easy way of starting at the end of the	ne string instead of the beginning. This way, -3 means	
<pre>script.py() 1  astring = "Hello world!" 2  print(astring[3:7:2])</pre>	IPython Shell () In [1]:	(https://github.com/datacamp/datacamp-light)	
Run •			
Powered by DataCamp (https://www.datacamp.com)  This prints the characters of string from 3 to 7 skipping one cha	racter. This is extended slice syntax. The	general form is [start:stop:step].	
<pre>script.py() 1</pre>	IPython Shell () In [1]:	(https://github.com/datacamp/datacamp-light)	
Run •			
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Note that both of them produce same output  There is no function like strrev in C to reverse a string. But with	the above mentioned type of slice syntax	you can easily reverse a string like this	
<pre>script.py() 1   astring = "Hello world!" 2   print(astring[::-1])</pre>	IPython Shell () In [1]:	(https://github.com/datacamp/datacamp-light)	
Run •			
Powered by DataCamp (https://www.datacamp.com)  This			
<pre>script.py() 1    astring = "Hello world!" 2    print(astring.upper()) 3    print(astring.lower())</pre>	IPython Shell () In [1]:	(https://github.com/datacamp/datacamp-light)	
Run ●			
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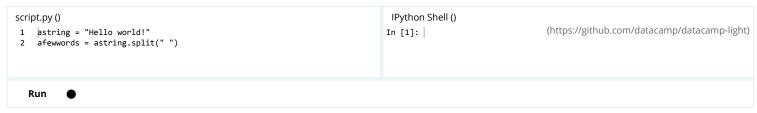
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These make a new string with all letters converted to uppercase and lowercase, respectively.



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This is used to determine whether the string starts with something or ends with something, respectively. The first one will print True, as the string starts with "Hello". The second one will print False, as the string certainly does not end with "asdfasdfasdf".

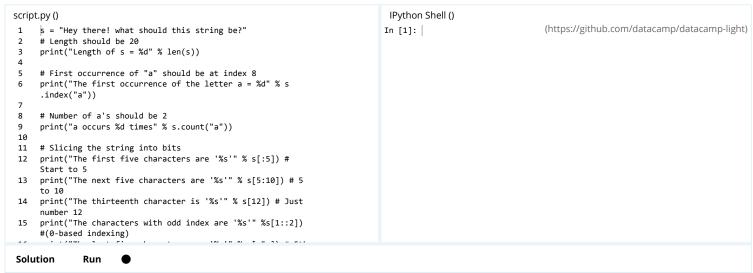


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This splits the string into a bunch of strings grouped together in a list. Since this example splits at a space, the first item in the list will be "Hello", and the second will be "world!".

## **Exercise**

Try to fix the code to print out the correct information by changing the string.



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