

Strings in Python

October 4, 2021

Administrative Notes

Go over HW 4

- One of the problems relies on material we'll cover today
-

Topics

Split

Join

List slicing

Split, again

Converts a string to a list

```
news = input("Please enter today's headlines")  
  
#get rid of extra whitespace  
  
news = news.strip()  
  
words = news.split()
```

Gets rid of the character on which you split

The opposite of split is join

Remember the split statement

- Takes a string, and returns a list
- Breaks on whatever character you specify; breaks on whitespace by default
- Gets rid of the character on which you split

“Join” is the opposite

- Input is a list
- Result is a string, with the elements of the lists combined into a string
- Elements separated by the character(s) you identify in the statement
- Syntax:

```
str = “sep”.join(l)
```

.join - Notes

- The separator “sep” can be any string you want
 - Blank spaces, commas, and periods are fairly common
- If you want no separator, specify an empty string and the list elements will be run together
- Note: this ONLY works if the list is made up of strings
 - If you have a list of ints, you cannot join them!!

Using .split and .join to edit a string

```
s = “alpha,beta,gamma,delta,sigma”
```

replace all of the commas with blank spaces - using split and join

Nested loops

```
for i in range(10):  
    for j in range(5):  
        print( i, " * ", j, " is ", i*j)  
        Input ("hit Enter to continue")
```

```
i = 0  
while i < 10:  
    j = 0  
    while j < 5:  
        print( i, " * ", j, " is ", i*j)  
        input ("hit Enter to continue")  
        j += 1  
    i += 1
```

Note how this works. The inner loop - where j is the iterator - goes through its entire sequence for each different value of i

- You can't use the same variable as the iterator in both loops

Let's play around with the formatting of that previous example

```
i = 0
while i < 10:
    j = 0
    while j < 5:
        print( i, " * ", j, " is ", i*j)
        input ("hit Enter to continue")
        j += 1
    i += 1
```

```
i = 0
while i < 10:
    j = 0
    while j < 5:
        print( i, " * ", j, " is ", i*j, end = " ")
        input ("hit Enter to continue")
        j += 1
    print("\n")
    i += 1
```