

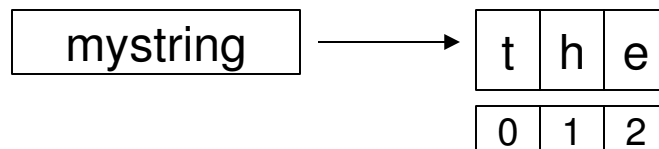
Strings

Strings

- A string is a series of *characters*
- Characters can be referenced by using brackets
- The first character is at position 0

mystring = "the"

letter = mystring[2] #letter becomes 'e'



length

- The len function returns the length of a string

```
mystring="bob"  
len(mystring) #3  
len("adam") #4  
length=len(mystring)  
last = mystring[len-1] #retrieves last char
```

for loops

```
mystring = "CS is cool!"  
for c in mystring:  
    print c
```

```
index=0  
while index < len(mystring):  
    print mystring[index]  
    index += 1
```

Slices

- Select a segment of a string
- Specify [start:end]
 - include start but do not include end
 - if you do not specify start slice starts from the beginning
 - if you do not specify end slices goes to end

```
mystring="CS is cool"  
print mystring[6:10]  
print mystring[2:7]  
print mystring[:4]  
print mystring[:]
```

String Comparison/in

- `==` tests to see if strings are the same
- `>`, `<` compares strings alphabetically
- The `in` operator tests whether a given character appears in a given string
 - `'c' in "chocolate" #true`
 - `'z' in "chocolate" #false`

Immutability

- Strings are immutable
 - they cannot be changed

string module

- Contains useful methods for strings
<http://docs.python.org/lib/string-methods.html>
- Dot notation allows us to call a method on a string object

```
import string
mystring="adam"
string.find(mystring, "a") #returns index of first instance found
mystring="CS is cool"
mystring.split() #result ['CS','is','cool']
newstring = mystring.replace("CS", "Econ")
```