

Lesson 22:

String Functions

String Functions

How Strings Work

The letters in Strings are stored as individual characters

Each is given an address

String Functions

How Strings Work

The addresses start at **zero**

You can find the length using `.length()`

`word.length()`

String Functions

Concatenation:

add Strings

```
word3 = word1 + word2;
```

The + symbol is **overloaded**

This means it has multiple uses depending on the situation

String Functions

Tools for working on Strings

Since Strings are classes they have data and tools to change that data.

We call these tools **methods**.

String Functions

How do we test if two Strings are equal?

Can't use ==

.equals()

This method is built into String

It tests if the contents are equal

String Functions

.charAt ()

tells us what letter is at a spot in the String

the first spot is 0

```
String w = "variable";  
System.out.println(w.charAt(2));
```

→ prints the letter 'r'

String Functions

.indexOf(c)

put in a character, tells where it is

```
String w = "variable";
```

```
System.out.println(w.indexOf('i'));
```

prints 3

String Functions

.substring(start, stop)

pulls off a section of a string from **start** to **stop - 1**

String w = "variable";

System.out.print(w.substring(2, 5));

prints **ria**

String Functions

.substring(start)

pulls off a section of a string from start to the end of the array

```
String w = "variable";
```

```
System.out.print(w.substring(4));
```

prints **able**

example of **overloading** - two methods with the same name

String Functions

.toUpperCase()

Changes the String to all upper case letters

```
s = s.toUpperCase();
```

There is also

```
s = s.toLowerCase();
```

these aren't tested but can be handy

String Functions

.compareTo(other)

Compares two strings alphabetically

```
String s = "ardvark";  
System.out.print(s.compareTo("zebra"));
```

Outputs -25

Look at the Quick Reference guide

String Functions

There are more:

[http://download.oracle.com
/javase/6/docs/api/java/lang/String.html](http://download.oracle.com/javase/6/docs/api/java/lang/String.html)