



ITEC 120

Lecture 3
Strings

Review

- Questions?
- Editors / Compilers
- Input, Output, Compute

Strings

Objectives

- Tutors in lab
- Text
- Operations
- Problem
- Solution

Strings

Text

- “Hello World”
- Making programs usable
 - Enter price for item:
 - 3.45
 - Enter quantity of item:
 - 2
- Bills

Strings

Tasks

- Adding (concat)
 - concat "Hello" + "World"
- Find (contains)
 - Does "Hello World" contain ello
- Specific characters
 - Get the first letter of the first name
- Comparison (equals/not equal)
 - Username and password

Strings

Tasks

- Replacement
- How long is it (length)
- Need the first three letters of the first name
 - Substring

Strings

Representation

String temp;
temp = "Hello World";

H	e	l	l	o		W	o	r	l	d
0	1	2	3	4	5	6	7	8	9	10

charAt returns a String representing a character at the corresponding position

What is charAt 0? 3? 10?

substring returns a String containing the characters in the specified range. It does not include the last character in the range.

What is substring(0,5)

Strings

Finding characters

H	e	l	l	o		W	o	r	l	d
0	1	2	3	4	5	6	7	8	9	10

- indexOf
- lastIndexOf
- int num = str.indexOf('H');
- How do you find the first o and last o?

Strings

Conversion

```

Integer:
int a = Integer.valueOf("123");

Doubles:
double b = Double.valueOf("3.45");

Backwards:
String a = String.valueOf(123);
String b = String.valueOf(3.45);

```

Strings

Example

- Find the first character in the first name and store it in a string called formatted
- Print out "Welcome" then print out the value of formatted then a . then a space then the last name

Andrew Ray → A. Ray

Strings

Other examples

```

Adding strings together
String one;
String two;
one="Hello";
two=" World";
String three;
three = one + two;
one= one.concat(two);
one = Hello World
three = Hello World

Equality
String one;
String two;
one="Hello";
two=" World";
Boolean test;
test=one.equals(two);
test = false

if (test)
{
}
else if (one.equals(two))
{
}

Substring
String one;
String destination;
one="Hello";
destination= one.substring(0,3);
destination=Hel

```

Strings

Example Code

```

What does this do?
String hw;
hw = "Hello World";
String mystery;
mystery = hw.substring(3,8);
System.out.println(mystery);

```

Strings

What steps do you have to do to run this?

Example Code

What does this do?

```
String hw;
double mystery;
Scanner input = new Scanner(System.in);
hw = input.nextLine();
mystery = Double.valueOf(hw);
mystery = mystery + 10.5;
System.out.println(mystery);
```

Strings

Example Code

What does this do?

```
String hw;
hw = "Hello World";
hw.toUpperCase();
System.out.println(hw);
hw.toLowerCase();
System.out.println(hw);
```

Strings

Example Code

What does this do?

```
String hw;
hw = "Entered: ";
double input;
Scanner scan = new Scanner(System.in);
input = scan.nextDouble();
hw.concat(String.valueOf(input));
System.out.println(hw);
```

Strings

Problem

- How do we get two numbers out of "300|400"?
- Why?
- What about 300|400|500?

Strings

Review

- Strings
 - Basic operations
 - Problems
 - Solutions

Strings