



# Lesson 8

Review



# Warmup Coding Bat Questions

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Logic - 2: roundSum, closeFar

String - 2: repeatEnd, repeatFront, repeatSeparator

AP - 1: scoresIncreasing

Array - 1: maxEnd3



# Variables Review

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- A piece of memory that can contain data
- Each variable has a data type that determines what can be stored in it
- Primitive Variables: The most common types of variables, stores simple information
  - Types include boolean, byte, char, short, int, long, float, double



# String & Index Review

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- A variable type that is a collection of characters
  - Not primitive
- `.length()` returns the length of the string
- `.equals()` checks if two strings are equal
- `.indexOf()` returns the index where the substring is found & -1 if not found
  - Index starts at 0
- `.substring()` returns the string from the starting index to the ending index (if present)



# Logic Review

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- Relational operators are symbols that compare the value of two numbers
  - Includes ==, !=, >=, <=, >, and <
- Logical operators compare boolean values. Some examples are && (and), || (or), and ! (not)
- If and else statements can execute code if a certain condition is true
- For loops repeatedly run statements a certain number of times



# Methods Review

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- A group of code that performs a certain action
- Method headers are in the format: access modifier, return type, method name (parameters)
  - Types of access modifiers include public and private
  - Parameters are values that are passed into the function
  - Return type indicate what will be returned from the method call
  - Methods are called like so: `methodName (parameter) ;`
  - Main method is a special method in the form `public static void main (String [] args){}` used to call methods.



# Array Review

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- An array is a list of elements
  - Declaration: `(type) [] (name) = new (type) [size];`
- There are two ways to store a value in an array
  - Ex: `int[] list = new int[5];`  
`int number = 2;`
  - `list[0] = number;`



# ArrayList Review

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- Similar to arrays, but have adjustable lengths
  - Declaration: `ArrayList<String> newArr = new ArrayList<String>();`
- ArrayList methods include `.add()`, `.contains()`, `.get()`, `.indexOf()`, `.lastIndexOf()`, `.size()`, `.remove()`, `.set()` and `.subList()`;
- ArrayList is part of the `java.util` package. To use ArrayLists, you have to import the `ArrayList` class using the command `import java.util.ArrayList;`





# Gimkit

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Go to [gimkit.com/play](https://gimkit.com/play) and join the game:

This is like a cumulative final ;)

[Final \(CP103 L4\)](#)



# Feedback!

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Thank you so much for taking this class!

Please fill this form before class ends, and I hope you enjoyed your experience here.

<https://forms.gle/D9R7nnqGQ3VMTZAG8>



# Questions?

Contact us here:

Email:

[codingpower101@gmail.com](mailto:codingpower101@gmail.com)

Website:

[codingpower.org](http://codingpower.org)