Topic 1: The Java Programming Language

Part 4: String Formatting and Collections

String Formatting and Collections

Formatted Printing

- Use `printf()` to print formatted numbers:
  `System.out.printf(<format string>, <arg0>, ...);`
- **Format String**: text and conversion specifiers
- **Arguments**: Extra data to print.

Common Conversion Specifiers

`%d`	`decimal (int)`
`%x`	`hexadecimal`
`%f`	`float`
`%s`	`String`
`%b`	`boolean`
`%n`	`new line (like \n)`

Formatted Printing (2)

- Formatting floats and columns
- Round to 2 decimal-point places: `%.2f`
- Use at least 5 columns to print: `%5d`
- Print with comma groupings: `%,d`

(Ex1dStringFormatting.java)

Wrappers with Collections

- Primitive data types cannot be use when you need a class (such as in an ArrayList).

- Wrapper: Class that holds primitive values

- Java has immutable wrappers for primitive data types:
Integer, Double, Boolean, Character, etc

- If we wanted to create an ArrayList of integers, we would need to use the `Integer` wrapper class

(Ex1dShuffle.java)