

# CSE 11

# Accelerated Intro to Programming

# Lecture 15

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This lecture is being recorded

# Announcements

- PA7 due today @ 11:59pm
- Lecture Quiz 6 due tomorrow @ 11:59pm
- PA4 resubmissions due Friday @ 11:59pm
  - No tutoring hours on Friday
- PA5 resubmission due next Wednesday @ 11:59pm
- Exam 2
  - Friday – releasing at 12am
    - Due Saturday @ 4pm

# Refined Class Definition

```
class Name <TypeVar1, TypeVar2, ...> {  
    ...class body...  
}
```

# Refined Method Definition

```
<TypeVar1, TypeVar2, ...> Type name(Type name, ...) {  
    ...method body...  
}
```

# Wrapper Classes

- Integer
- Boolean
- Double

# ArrayList

- Must import it from the Java util library
  - `import java.util.ArrayList;`
- <https://docs.oracle.com/en/java/javase/13/docs/api/java.base/java/util/package-summary.html#CollectionsFramework>
- <https://docs.oracle.com/en/java/javase/13/docs/api/java.base/java/util/ArrayList.html>

# Method Overloading

- Same method name has more than one signature in a class or interface

# Exceptions

- Throwing errors in order to give more specific and informative error messages
  - `throw new <something throwable>;`



# File I/O (input/output)

- `File.readString()`
  - [https://docs.oracle.com/en/java/javase/13/docs/api/java.base/java/nio/file/Files.html#readString\(java.nio.file.Path\)](https://docs.oracle.com/en/java/javase/13/docs/api/java.base/java/nio/file/Files.html#readString(java.nio.file.Path))
- `Path.get()`
  - [https://docs.oracle.com/en/java/javase/13/docs/api/java.base/java/nio/file/Paths.html#get\(java.lang.String,java.lang.String...\)](https://docs.oracle.com/en/java/javase/13/docs/api/java.base/java/nio/file/Paths.html#get(java.lang.String,java.lang.String...))

# IOException

- IOException documentation
  - <https://docs.oracle.com/en/java/javase/13/docs/api/java.base/java/io/IOException.html>

# List

- List documentation
  - <https://docs.oracle.com/en/java/javase/13/docs/api/java.base/java/util/List.html>

# Challenge

- AverageFile
  - Read in doubles from the path given as the first argument, and print out the mean of those numbers. Assume the file has one number per line.
  - What if the file had the numbers separated by spaces rather than by lines?
- Region
  - Where could we add exceptions in the Regions examples?