Announcements

- Final exam
  - Friday, Dec 16, 9am-12 in LSRC D106
- Checkoffs must be done by
  - Monday, Dec 12, 5pm!
  - There are office hours every day til then
  - Prof Rodger will have extended hours on Monday, from 3-5pm
- See get help page for office hours for next week, Prof. Rodger is available everyday

Grades

- From the Course Web page:
  - classwork 20%
  - reading quizzes 5%
  - assignments/homework 20%
  - two exams 30%
  - final exam 25%

- Reading Quizzes – 175 points total
  - 150 and above will be 100% (drop 25 points)
- Classwork – no drops, you can still turn in until Monday, Dec 12, 5pm.

Chap. 11 – What’s Next? Java

- Java – object-oriented programming language
  - Classes, objects, inheritance
  - Control structures (if, while)
  - Functions, methods
  - Data types (integers, doubles, strings, arrays, lists)
- Sound familiar?
Java vs Alice

• Syntax (rules for writing statements) is different
• Call a method to assign a value
  – Java
    ```java
    a.set(value, 0);
    ```
  – Alice
    ```text
    a set value to 0
    ```

Java vs Alice

• Method and function signature is different
  – Java
    ```java
    public Number Mystery (Number[] lotsOfValues) {
    ```
  – Alice
    ```text
    public function world.Mystery(lotsOfValues)
    ```

  – What are the parts?

Java Function Signature

• public – accessible by all other methods
• Number – type of value returned
• Mystery – name of function
• Number [] lotsOfValues
  – Array of numbers

What does this Java function do?

```java
public Number Mystery (Number[] lotsOfValues) {
    Number a = 0;
    a.set(value, 0);
    for (int index = 0; index < lotsOfValues.length; index++) {
        if (lotsOfValues[index] > a) {
            a.set(value, lotsOfValues[index]);
        } else {
            Do Nothing
        }
    }
    return a;
}
```
Same function in Alice

```java
world.Mystery

world.Mystery [ lotsOfValues ]

(a) = 0

Loop
- index from 0 to (but not including) size of lotsOfValues
- incrementing by 1

If
- index from lotsOfValues
- > a

Else
- set value to index from lotsOfValues

Return a
```

Alice code in java

- Select Edit Preferences

![Preferences](image)

- Must restart Alice

Final Exam

- Covers Chapters 1-2, 4-7, 8.1, 9-11
- HTML is not on the final exam
- Mix of MC, short answer, write code
  - Similar format to tests 1 and 2
- Closed books, closed notes
- Will give list of properties, methods, functions for an object

How to Study

- Reading Quizzes – will put on Blackboard
- Classwork – review, try to write code on paper
- Assignments – review (especially Asg. 6)
- Research Study survey – has test questions
  - Will be emailed to you this week
  - See Camelia in LSRC D230 if still want to join
- Practice writing code – if, loop, array, list, etc.