Introduction and First Program
August 20, 2007

Outlines
• Class Overview
• Syllabus
• First Program

A silly question
• How many of you know how to read and write?

Well, this was not always the case

A silly question
• How many of you know how to read and write?
Today programming is becoming a required skill for many jobs

Java

- A programming language specifies the words and symbols that we can use to write a program.
- A programming language employs a set of rules that dictate how the words and symbols can be put together to form valid program statements.
- The Java programming language was created by Sun Microsystems, Inc.
- It was introduced in 1995 and its popularity has grown quickly since.

Reserved Words

- The Java reserved words:
  - abstract
  - boolean
  - byte
  - char
  - class
  - const
  - continue
  - default
  - do
  - double
  - else
  - enum
  - extends
  - final
  - finally
  - for
  - goto
  - if
  - implements
  - import
  - instanceof
  - int
  - interface
  - new
  - null
  - package
  - private
  - protected
  - public
  - static
  - strictfp
  - super
  - switch
  - synchronized
  - this
  - throw
  - throws
  - transient
  - true
  - try
  - void
  - volatile
  - while
Focus of the Course

• This is an intro to programming class (that uses the Java programming language)

• The focus is on
  • the logic of programming
  • problem solving
  • program design, implementation, and testing
  • object-oriented concepts
    • classes
    • Objects
    • methods

Focus of the Course

• This class is geared for non-Computer Science majors.

• If your major is CS you should take ComS 208.

• However, this does not mean that this is an easy class...

In other words, this class is NOT

• We will not go into details of programming GUIs

• We will not cover many of the libraries and classes that ship with the Java language

• Currently there are > 2,500 classes in these libraries

• We will not cover some advanced Object-Oriented concepts

Warning

• Learning how to program takes a lot of time!

• It also requires a lot of patience.

• You cannot learn how to program by just reading a textbook. You have to spend long hours in front of the computer.

• If you want to learn how to program well you will have to take at least 2-3 classes. This class alone is not enough.

Syllabus

• Posted on the Class Web Page:
REQUIRED TEXTBOOK

THE TEXTBOOK from last semester is also OK.

THIS ONE IS NOT OK.

Recitations

- W 8:00-8:50 IN Pearson 0109
- W 9:00-9:50 IN Pearson 0109
- W 10:00-10:50 IN Pearson 0109

Night Exams

- Tue. Sep. 18 6:30-7:45 p.m.
- Tue. Oct. 23 6:30-7:45 p.m.

WebCT

- Submission of Homeworks
- Discussion threads
- Anonymous Course Feedback
First Program

Java Program Structure

- In the Java programming language:
  - A program is made up of one or more classes
  - A class contains one or more methods
  - A method contains program statements
- These terms will be explored in detail throughout the course
- A Java application always contains a method called `main`

```java
public class MyProgram {
    // comments about the class
    public static void main (String[] args) {
        System.out.println("Hello World!");
    }
    // comments about the method
}
```

Comments can be placed almost anywhere

```
// comments about the class
public class MyProgram {
    class header
    class body
}
// comments about the method
method header
method body
```

```
// comments about the class
public class MyProgram {
    public static void main (String[] args) {
        System.out.println("Hello World!");
    }
    // comments about the method
}
```
Questions/Comments?

THE END