ComS 207: Programming I

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http://www.cs.iastate.edu/~alex/classes/2006_Fall_207/

Introduction and First Program

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Outline

• Questionnaire
• Class Overview
• Syllabus
• First Program

Questionnaire

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

Language Acquisition

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 it's popularity has grown quickly since
Reserved Words

• The Java reserved words:

abstract   else   int   strictfp
boolean   enum   interface   super
break   extends   long   switch
byte   false   native   synchronized
case   final   new   this
catch   finally   null   throw
char   float   package   throws
class   for   private   transient
const   goto   protected   true
continue   if   public   try
default   implements   return   void
do   import   short   volatile
double   instanceof   static   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

What this class will NOT cover

• 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:
  • http://www.cs.iastate.edu/~alex/classes/2006_Fall_207/

REQUrrTED TEXTBOOK

THE TEXTBOOK from last semester is also OK.

Recitations

• W 8:00-8:50 IN ATANSFF B0029
• W 9:00-9:50 IN ATANSFF B0029
• W 10:00-10:50 IN GILMAN 1810

Night Exams

• Tue. Oct. 17 6:30-7:45 p.m.
• Wed. Nov. 18 6:30-7:45 p.m.
• Tue. Sep. 19 6:30-7:45 p.m.
• Wed. Nov. 24 6:30-7:45 p.m.
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
package MyProgram;

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

Comments can be placed almost anywhere