121 Discussion #5 10/2/2008
Announcements:
Midterm: Wednesday 10/15, 7-8:15, Thompson 102,106
Old Midterm up
OWL hand-in for program #3; next OWL assignment up

Tuesday’s class: method mechanics; method design principles; What to make of “this”; will do parameter passing, call by value, on Thursday.

Method writing –

Infant work first:

Write an Infant method that returns an Infant’s age in years (so: an 18 month kid is 1.5 years old).

    public double years(){return age/12.0;}

Write an Infant method that returns an Infant’s age in days, where 1 month = 30 days (so: a 3 month kid is 90 days old).

    public int days(){return age*30;}

Rewrite the Infant constructor using “this”. (see Infant definition on other side – fix lines 7,8)

    Missing lines: this.age = age; this.name = name;

Write a method that’s passed two double values and writes the greater of the two to the console.

    public double bigger(double a, double b)
    {if (a > b) return a; else return b;}

Write a method that’s passed a String, an integer, and a character, and returns true if the character actually appears at the indicated integer (position) in the String.

    How would you trap for out-of-bounds int values?

    public Boolean what(String s, int n, char c){
      if (n < 0) return false;
      if (n >= s.length()) return false;
      char ch = s.charAt(n);
      return (ch == c);
    }
Below find the Person class. Not much too it, but: write a setAge method.

```java
public void setAge(int age){this.age = age;}
```

Write a makeSibling method — two parameters: a first name, and an age (assume last name is the same). Should return another Person — a sibling!

```java
public Person makeSibling(String f, int age){
    String last = this.lastName;
    Person p = new Person(f, last, age);
    return p;
}
```

```java
public class Person{
    private String firstName;
    private String lastName;
    private int age;  // in years

    public Person(String first, String last, int age){
        firstName = first;
        lastName = last;
        this.age = age;
    }

    public String getFirst(){return firstName;}
    public String getLast(){return lastName;}
    public int getAge(){return age;}
}
```

```java
public class Infant{
    private String name;
    private int age;  // age in months

    public Infant(String name, int age){
        ??
        ??
    }

    public String getName(){return name;}
}
```
public int getAge(){
    return age;
}

public void anotherMonth(){
    age = age + 1;
}

Notes on programming project 3:

How would you write a one-class program that reads in a string, and the prints it twice to the console? Make sure you can do this! (Not sure: use similar code from lecture, book!)

boolean which = Character.isLetterOrDigit('a'); - this is a static method, like the ones in the Math class