Loops III

Lecture 20, Fri Mar 5 2010

borrowing from slides by Kurt Eiselt

http://www.cs.ubc.ca/~tmm/courses/111-10
Reading

- Reading question for Chap 6 due today

- Next week:
  - Chap 7: 7.1, 7.5-7.7. Topics 7.3 and 7.4 (3rd ed)
  - Chap 8: 8.1, 8.5-8.7. Topics 6.3 and 6.4 (2nd ed)
News

- Midterms returned before break
  - get yours after class if you didn't already
public class WhileDemo {
    public static void main (String[] args) {
        int limit = 3;
        int counter = 1;
        while (counter <= limit) {
            System.out.println("The square of " + counter + " is " + (counter * counter));
            counter = counter + 1;
        }
        System.out.println("End of demonstration");
    }
}
Recap: For Loop Example

```java
public class ForDemo {
    public static void main (String[] args) {
        for (int counter = 1; counter <= 3; counter = counter + 1) {
            System.out.println("The square of "+ counter + " is "+ (counter * counter));
        }
        System.out.println("End of demonstration");
    }
}
```

- **for version**
Recap: Do Loop Example

public class DoDemo
{
    public static void main (String[] args)
    {
        int limit = 3;
        int counter = 1;
        do
        {
            System.out.println("The square of " + counter + " is " + (counter * counter));
            counter = counter + 1;
        } while (counter <= limit);
        System.out.println("End of demonstration");
    }
}

- **do** version
Recap: **Do** Statement

- **initialize**
- **do useful stuff**
- **test**
- **get closer to termination**

- Body always executed at least once

Order of four things can change, but need them all
Practice Problem

- Write program using loop to simulate flipping a coin one million times
  - keep track of how many times it’s heads up and how many heads down
  - print results
- Make version for each loop type
  - while, for, do
Flipping Coins

- while version
Flipping Coins

for version