



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)

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News

- Midterms returned before break
 - get yours after class if you didn't already

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Recap: While Loop Example

```
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");
  }
}
```

- while version

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Recap: For Loop Example

```
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

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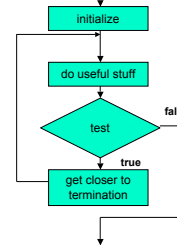
Recap: Do Loop Example

```
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

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Recap: Do Statement



- Body always executed at least once

order of four things can change, but need them all

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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

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Flipping Coins

- while version

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Flipping Coins

- for version

10