Reading:

1. Deitel & Deitel, Chapter 10 & 11

Objectives:

1. Midterm Exam Solution
2. Continue discussing Object Oriented Programming
3. Refresh Strings

Concepts:

1. Midterm Exam Solution
2. Inheritance
3. Packages

References:

2. http://java.sun.com/j2se/1.4.2/docs/api/
1. Inheritance
   - Definition
     o Deriving an object from an existing class. In the other words, Inheritance is the process of inheriting all the features from a class.
   - Superclasses & Subclasses
     o Superclasses – A class from which a particular class is derived, perhaps with one or more classes in between.
     o Subclasses – A class that is derived from a particular class, perhaps with one or more classes in between.
     o Relationships – The Subclasses inherits methods from the Superclasses. A Subclass can override the Superclasses methods.
     o Protected - It signifies that the method or variable can only be accessed by elements residing in its class, subclasses, or classes in the same package.

2. Strings
   - String
     o Numerical Representation
     o Comparison

3. Midterm
   Refer to CS 201: Week 10 – Midterm
Objectives:
1. Further use of Strings
2. Further use of Methods

Assignment:
Create a method that takes two parameters a character and a string. The method should count how many times the character is present in the string and concatenate to the end the corresponding ASCII character with numerical representation equal to the total count plus the offset of 65. Output the message.

For example having character “A” and string “BAZAAR” should output BAZAARC.

```java
class CountCon {
    public static void main(String args[]) {
        String conChar = “A”;
        String conString = “BAZAAR”;
        ConOut(conChar, conString);
    }

    public void ConOut(String ch, String message) {
        int offset = 65;
        int count = 0;
        int length = message.length();
        for(int i = 0; i < length; i++) {
            if( ch = message.substring(i, i))
                count++;
        }
        count = count + offset;
        String temp = count;
        System.out.println(message + temp);
    }
}
```