**Lab – Nursery Rhymes**

Sometimes we don’t want an /exact/ copy of statements, but we want something very similar. We still use methods to reuse code, but we add **parameters** to the methods so that we can pass pieces of information to be used. We will practice this in this lab.

If you haven’t noticed, many nursery rhymes are a tad repetitive. We are going to write code to produce a few popular nursery rhymes. However, even though the rhymes are repetitive, we are going to make sure our code is not. Yay!

1. You are to complete the three methods provided
2. You should invoke each of the methods (farm, monkeys, and hickory\_dickory) one more time, with new parameters
3. Write the new methods described below

public class NurseryRhymes  
{   
   public static void main(String[] args)  
   {  
      farm("cow","moo");  
      farm("duck","quack");

//TODO: add another animal to the farm here  
      monkeys(10);  
      monkeys(9);

//TODO: remove a monkey from the bed here  
      hickory\_dickory(1);  
      hickory\_dickory(2);

//TODO: make the clock strike three here

//TODO: call your new methods here (you must write them first!)  
   }  
    
   public static void farm(String animal, String sound)  
   {  
      //TODO: write your code here  
   }  
     
   public static void monkeys(int number)  
   {  
      //TODO: write your code here  
   }  
     
   public static void hickory\_dickory(int time)  
   {  
      //TODO: write your code here  
   }

   //TODO: add your new methods here  
}

Your new methods should be:

1. a method called milk

The method should take an integer parameter that represents the number of bottles on the wall. i.e. If the call milk(99) was made, the results should be:

99 bottles of milk on the wall

99 bottles of milk

Take one down and pass it around

98 bottles of milk on the wall

1. a method called hokey\_pokey

The method should take a String parameter that represents a part of the body. i.e. If the call hokey\_pokey(“booty”) is made, the result should be:

You put your booty in

You put your booty out

You put your booty in

And you shake it all about

You do the Hokey Pokey

And you turn yourself about

That’s what it’s all about!

1. a  method called bingo  
   The method should take a String parameter that represents the “bingo” part of the song. i.e. If the call bingo(“(clap)-I-N-G-O”) is made, the result should be:

There was a farmer who had a dog

And Bingo was his name-o

(clap)-I-N-G-O

(clap)-I-N-G-O

(clap)-I-N-G-O

And Bingo was his name-o

1. a method called frogs

The method should take an integer parameter that represents the number of speckled frogs sitting on the log.  i.e. If the call frogs(3) is made, the result should be:

   3 little speckled frogs

sitting on a speckled log

eating the most delicious bugs

yum, yum

one jumped into the pool

where it is nice and cool

now there are 2 little speckled frogs!

ribbit, ribbit

Sample output:

  Old MacDonald had a farm   
     e-i-e-i-o   
     And on that farm he had a cow  
     e-i-e-i-o   
     With a moo moo here   
     And a moo moo there   
     Here a moo, there a moo  
     Everywhere a moo moo  
     Old MacDonald had a farm   
     e-i-e-i-o  
       
     Old MacDonald had a farm   
     e-i-e-i-o   
     And on that farm he had a duck  
     e-i-e-i-o   
     With a quack quack here   
     And a quack quack there   
     Here a quack, there a quack  
     Everywhere a quack quack  
     Old MacDonald had a farm   
     e-i-e-i-o  
       
     10 little monkeys jumping on the bed   
     One fell off and bumped his head   
     Mama called the doctor, and the doctor said   
     "No more monkeys jumping on the bed!"  
       
     9 little monkeys jumping on the bed   
     One fell off and bumped his head   
     Mama called the doctor, and the doctor said   
     "No more monkeys jumping on the bed!"  
       
     Hickory dickory dock   
     The mouse ran up the clock   
     The clock struck 1  
     The mouse ran down   
     Hickory dickory dock  
       
     Hickory dickory dock   
     The mouse ran up the clock   
     The clock struck 2  
     The mouse ran down   
     Hickory dickory dock