CS1073 Lab 4

February 16, 2011

Loops

1. Recall from homework 1 that we can approximate π by computing the sum of the following infinite series:

$$\pi = 4 \times (1 - \frac{1}{3} + \frac{1}{5} - \frac{1}{7} + \frac{1}{9} - \frac{1}{11} + \frac{1}{13} \ldots)$$

   Write a program that takes a value of n from the user and approximates π using n terms of the series given above. Suppose the value obtained for n is 3, then your program should compute

$$\pi = 4 \times (1 - \frac{1}{3} + \frac{1}{5})$$

   Feel free to use the pseudocode algorithm provided in the solution to homework 1.

2. (a) Name your file Lab4*yourname*.java.
   (b) Use standard input, i.e. use a Scanner object to get information from the keyboard
   (c) Use standard output to display the message, i.e. send the message to the screen