Coin Toss Simulator

1. Create Java Project ; Assignment2
2. Create Package ; Part2
3. Create Class ; CTS

package Part2;

import java.util.Random;

public class CTS {

class Coin {

private String sideUp;

/\*\*

\* Default constructor

\*/

public Coin() {

// initialize sideUp

toss();

}

/\*\*

\* This method will simulate the tossing of a coin. It should set the

\* sideUp field to either "heads" or "tails".

\*/

public void toss() {

Random rand = new Random();

// Get a random value, 0 or 1.

int value = rand.nextInt(2);

if (value == 0) {

this.sideUp = "Head";

} else {

this.sideUp = "Tail";

}

}

/\*\*

\*

\* @return The side of the coin facing up.

\*/

public String getSideUp() {

return sideUp;

}

}

static final int NUMBER\_OF\_TOSSES = 20;

public static void main(String args[]) {

// Create an instance of the Coin class.

CTS coinTossSimulator = new CTS();

Coin myCoin = coinTossSimulator.new Coin();

// Display initial toss

System.out.println("The side is now facing up: "

+ myCoin.getSideUp());

// Toss the coin repeatedly.

System.out.println("Now I will toss the coin " + NUMBER\_OF\_TOSSES

+ " times.\n");

int headCount = 0;

for (int i = 0; i < NUMBER\_OF\_TOSSES; i++) {

// Toss the coin.

myCoin.toss();

// Display the side facing up.

System.out.println("Results: " + myCoin.getSideUp());

if ("Head".equals(myCoin.getSideUp())) {

headCount++;

}

}

System.out.println("\nHeads facing up: " + headCount);

System.out

.println("Tail is facing up: " + (NUMBER\_OF\_TOSSES - headCount));

}

}