**Class Quality Control Code Highlighting KEY**

**Yellow:** Object/Class types | **Blue:** Method declarations | **Underlines:** Java Keywords

**Orange/Red:** VariableIdentifiers | **Pink:** Operators | **Green:** Method Calls

package components.comp1\_languageCore.lc3\_controlOfFlow;

import java.util.Random;

public class QualityControl {

 final static int QUALITY\_TRESHOLD = 65;

 final static int MAX\_QUALITY = 100;

 final static int UNITS\_TO\_MAKE = 10000;

 static int unitQuality = 0;

 static int totalFailures = 0;

 static int totalUnitsMade = 0;

 public static void main(String[] args){

 // make a random number generator

 Random randomGenerator = new Random();

 while(totalUnitsMade < UNITS\_TO\_MAKE){

 // generate a random number between 0 and 100

 unitQuality = randomGenerator.nextInt(MAX\_QUALITY + 1);

 System.out.println("Unit Quality: " + unitQuality);

 // increment our total unit counter

 totalUnitsMade = totalUnitsMade + 1;

 if(unitQuality < QUALITY\_TRESHOLD){

 System.out.println("Unit below quality standards!");

 totalFailures = totalFailures + 1;

 } else {

 System.out.println("Unit passes quality test");

 } // close if/else

 System.out.println("Total failures: " + totalFailures +

 " out of " + totalUnitsMade + " units made");

 } // close while

 // calculate summary statistics with division

 double productionRatio = (double)totalFailures /

 (double)totalUnitsMade;

 // print out summary statistics

 System.out.println("\*\*\*PRODUCTION SUMMARY\*\*\*");

 System.out.println("Tested " + totalUnitsMade + " Units.");

 System.out.println("Failure Ratio: " + productionRatio);

 } // close main

} // close class