**package** reading\_with\_exceptions;

**import** java.io.FileInputStream;

**import** java.io.FileNotFoundException;

**import** java.io.FileOutputStream;

**import** java.io.PrintStream;

**import** java.util.Scanner;

**public** **class** Reading\_With\_Exceptions {

**void** process(String inputFilename)

{

Scanner scanner = **null**;

PrintStream printStream = **null**;

String outputFileName = "";

// Here is where your work goes ... Steps that you will need to do:

// 1.) Create a Scanner from the inputFilename. Catch exceptions from errors.

**try** {

FileInputStream fi = **new** FileInputStream(inputFilename);

scanner = **new** Scanner(fi);

// 2.) Read the first String from the file and use it to create a PrintStream

// catching appropriate exceptions

outputFileName = scanner.next();

FileOutputStream fo = **new** FileOutputStream(outputFileName);

printStream = **new** PrintStream(fo);

printStream.printf("Output name: %s%n%n", outputFileName);

// 3.) Using hasNextInt and nextInt, carefully read the count integer.

// I recommend -1 for a count value if it is bad to indicate reading ALL

**int** intCount = 0;

**if** (scanner.hasNextInt() == **true**)

intCount = scanner.nextInt();

**else**

intCount = -1;

// 4.) Use copyNumbers method described below to complete the job

copyNumbers(scanner, printStream, intCount);

} **catch** (FileNotFoundException e) {

System.***out***.println("Filename '" + inputFilename + "' not found!");

}

// 5.) Close Scanner and PrintStream objects

**finally** {

**if** (scanner != **null**)

scanner.close();

**if** (printStream != **null**)

printStream.close();

}

// 6.) Call printToScreen to copy the output file to the screen

printToScreen(outputFileName);

}

// The following routine is called to complete the job of copying integers to

// the output file:

// scan - a Scanner object to copy integers from

// ps - A PrintStream to write the integers to

// numIntsToRead - number of integers to read. A value of -1 ==> read all integers

**void** copyNumbers(Scanner scan, PrintStream ps, **int** numIntsToRead)

{

// hasNext() can be used to see if the scan object still has data

// Note that hasNextInt() can be used to see if an integer is present

// nextInt() will read an integer

// next() can be used to skip over bad integers

**int** counter = 0;

**while** (scan.hasNext()) {

**try** {

**if** (numIntsToRead == -1) {

**int** i = scan.nextInt();

ps.printf("%3d", i);

counter += 1;

**if** ((counter % 10) == 0)

ps.println("");

}

**if** (counter >= 0 && counter < numIntsToRead) {

**int** i = scan.nextInt();

ps.printf("%3d", i);

counter += 1;

**if** ((counter % 10) == 0)

ps.println("");

}

} **catch** (Exception e) {

System.***out***.println("Skipped bad data");

scan.next();

}

**if** (numIntsToRead == counter)

**break**;

}

}

**public** **static** **void** main(String[] args) {

Reading\_With\_Exceptions rwe = **new** Reading\_With\_Exceptions();

**for** (**int** i=0; i < args.length; i++)

{

System.***out***.println("\n\n=========== Processing "+ args[i] + " ==========\n");

rwe.process(args[i]);

}

}

// For the last step, we Copy the contents of the file to the screen

**private** **void** printToScreen(String filename)

{

Scanner scan = **null**;

**try** {

FileInputStream fis = **new** FileInputStream(filename);

scan = **new** Scanner(fis);

**while** (scan.hasNextLine())

{

System.***out***.println(scan.nextLine());

}

}

**catch** (FileNotFoundException e)

{

System.***out***.println("printToScreen: can't open: " + filename);

}

**finally**

{

**if** (scan != **null**)

scan.close();

}

}// end of printToScreen

} // end of class