Scanner and PrintWriter Classes

1. In the method shown below, explain what is happening on every numbered line.

1. import java.util.Scanner;

import java.io.\*;

2. public static void IOpractice() throws FileNotFoundException,

IOException  
 {  
3. Scanner sc = new Scanner( System.in );  
4. System.out.print( "What filename? " );  
5. String filename = sc.next();  
6. Scanner infile = new Scanner( new File( filename ) );  
7. String fileout = “results.txt”;  
8. PrintWriter outfile = new PrintWriter(new FileWriter(fileout));  
9. while( infile.hasNext() )  
 {  
10. String s = infile.nextLine();  
 outfile.print( s + ", ");

}

11. outfile.close();

}

Static belongs to class not object, don’t need to instantiate it.

2. If you remember the Scanner class, write down five methods that you are likely to use. If you don’t remember, go look at its API and choose five methods that you find interesting. Hint: Google “Scanner class Java”.

hasNextLine();

nextLine();

reset();

ioException();

findAll();

3. Here is a sample dialog with a computer. The user is typing at the keyboard.

Enter your name: Marissa Mayer

You entered Marissa Mayer

Enter an integer: -2

Enter a decimal number: 2.71828

The sum is 0.71828

Using Scanner methods for keyboard input, write a complete program that reproduces the dialog above.

import java.util\*;

import java.io\*;

public class Reader throws Exception

{

public static void main (String[] args) throws Exception

{

Scanner input = new Scanner(System.in);

System.out.print(“Enter your name: “);

String name = input.nextLine().trim();

System.out.println(“You entered “ + name);

input = new Scanner(System.in);

System.out.print(“Enter an integer: “);

int i = inputint.nextInt();

input = new Scanner(System.in);

System.out.println(“Enter a decimal number: “);

double d = inputdouble.nextDouble();

int sum = i + d;

System.out.println(“The sum is “ + sum);

}

}

4. Using Scanner methods for file input, write a complete program to read the input file “datafile.txt”:

Marissa Mayer

-2

2.71828

Use the PrintWriter methods to produce an output file “processed.txt”:

Marissa Mayer

0.71828

import java.util\*;

import java.io\*;

public class Reader

{

public static void main (String[] args)

{

Scanner infile = new Scanner(new File(datafile.txt) );

Printwriter outfile =new PrintWriter(new FileWriter(“processed.txt”));

String s = infile.nextLine();

int i = infile.nextInt();

double d = infile.nextDouble();

outfile.println(s);

outfile.println(i + d);

oufile.close();

}

}