**44-542 Object Oriented Programming**

**Input/Output Examples**

**// Must import java.util.Scanner to use Scanner class**

**// Must import java.io.File to use File class**

**// Must include throws FileNotFoundException in header of any**

**// method attempting File operations**

**// Input from keyboard**

Scanner in = new Scanner(System.in);

If the input file is not in the root folder of the project, you must specify the full path name.

**// Input from text file**

Scanner myScanner =

new Scanner(new File("c:/0/data.txt"));

**// OR (if the data file is in the root folder of the project)**

Scanner myScanner =

new Scanner(new File("data.txt"));

Assume the file **data.txt** contains the following:

**Zelda**

**14**

**Midge**

**10**

**Carmen**

**7**

**Leonard**

**2**

**// A complete program that reads from data.txt**

**package fileinputandoutput;**

**import java.io.File;**

**import java.io.FileNotFoundException;**

**import java.util.Scanner;**

**public class FileIO**

**{**

**public static void main(String[] args) throws FileNotFoundException**

**{**

**Scanner myScanner = new Scanner(new File("data.txt"));**

**String name;**

**int age;**

**while (myScanner.hasNext())**

**{**

**name = myScanner.next();**

**age = myScanner.nextInt();**

**System.out.println(name + " is " + age + " years old.");**

**} // end while**

**myScanner.close();**

**} // end main**

**}**

**OUTPUT**

**Zelda is 14 years old.**

**Midge is 10 years old.**

**Carmen is 7 years old.**

**Leonard is 2 years old.**

// A complete program that reads data in the same way as the

// previous example, but output is directed to a file named

// dogInformation.txt.

package fileinputandoutput;

import java.io.File;

import java.io.FileNotFoundException;

import java.io.PrintWriter;

import java.util.Scanner;

public class FileIO

{

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

{

Scanner myScanner = new Scanner(new File("data.txt"));

PrintWriter myPrintWriter = new PrintWriter (

new File("dogInformation.txt"));

String name;

int age;

while (myScanner.hasNext())

{

name = myScanner.next();

age = myScanner.nextInt();

myPrintWriter.println(name + " is " + age + " years old.");

} // end while

myScanner.close();

myPrintWriter.close();

} // end main

}

Output will be the same as above, but it will not appear in the console window. Instead it will be in the file dogInformation.txt. Since we provided no path for the output file, it will be created in the root folder of the project.

**Here is the same program as above, except that both the input and output files are selected by the user.**

**package fileinputandoutput;**

**import java.io.File;**

**import java.io.FileNotFoundException;**

**import java.io.PrintWriter;**

**import java.util.Scanner;**

**import javax.swing.JFileChooser;**

**public class FileIO**

**{**

**public static void main(String[] args) throws FileNotFoundException**

**{**

**JFileChooser myChooser = new JFileChooser();**

**myChooser.showOpenDialog(null);**

**Scanner myScanner = new Scanner(myChooser.getSelectedFile());**

**myChooser = new JFileChooser();**

**myChooser.showOpenDialog(null);**

**PrintWriter myWriter = new PrintWriter(**

**myChooser.getSelectedFile());**

**String name;**

**int age;**

**while (myScanner.hasNext())**

**{**

**name = myScanner.next();**

**age = myScanner.nextInt();**

**myWriter.println(name + " is " + age + " years old.");**

**} // end while**

**myScanner.close();**

**myWriter.close();**

**} // end main**

**}**