Soft 7004 – OOP - Labs

## LAB 4: Completion Date: 7th December 2018

## On completion please zip up your files including any documents used for drawing the class diagram etc. Upload to BlackBoard.

**Q1**

Briefly explain how the attached java code in StoreWords.java and WordReference.java works.

There are 2 classes in which storewords.java is main and second one is wordreference.

**Storeword class runs text file**

**Wordreference file looks for words in each line and also prints that word with line number that word is in.**

**Store words class run text file and read words in the text file**

**Word reference looks for a words line that which line does the word exist in arraylist and output that**

**Store word class send word to word reference class and word reference class returns line number and then storewords class prints the line number with the word.**

**For e.g : text file =**

**Line 1 = hello**

**Line 2 = james**

2

1

|  |  |
| --- | --- |
| **Key** | **Value** |
| **hello** |  |
| **James** |  |

**Q2**

Explain how you would use the code question 1 to write a java program which outputs a cross-reference listing of all the java files in a directory.

A cross-reference listing is a table of identifiers and the line numbers with associated java file name in which the identifiers occurred.

For example the cross-reference listing of the following java file is given below:

//first.java

*public class first{*

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

*String name = "Joe Bloggs";*

*System.out.println(name);*

*System.out.println("the length of name is :"+name.length());*

*}*

*}*

*public (first.java) 1 2*

*class (first.java) 1*

*first (first.java) 1*

*static (first.java) 2*

*void (first.java) 2*

*main (first.java) 2*

*String (first.java) 2 3*

*a (first.java) 2*

*name (first.java) 3 4 5 5*

*System (first.java) 4 5*

*out (first.java) 4 5*

*println (first.java) 4 5*

*length (first.java) 5*

I would change the following line File file = new File("test.txt"); to the specified directory

e.g. File file = new File().I couldn’t find a way to output all the files in a directory as if I just had the following File file = new File(path) I was getting an access denied error.

for (String key : hash.keySet()) {

WordReference w = hash.get(key);

System.out.println(key+":");

w.Print();

System.out.println("");

}

To **for** (String key : hash.keySet()) {

WordReference w = hash.get(key);

System.***out***.print(key+":" + " (" + file +") ");

w.Print();

System.***out***.println("\n");

}

This just make the output easier to read.