**Software Development Report**

for

# CSC 121: Programming I: Spring 2022

**Arrays and counting keywords**

by

**Manel Casado Garrigues**

**Problem summary:**

The program is to count the number of occurrences of different keywords on a file

**Problem Requirements:**

* First command line argument is a text file with the keywords in it, separated by space, can have multiple lines
* Second command line argument is a text file with the text that has to be counted
* Assume punctuation and numbers
* Ignore difference between upper and lower case
* Each file can only be read once
* Output number of times each word appears in a result file specified by the third command line argument

**Sistem design:**

* Limit keywords to 1000 max
* Define arguments
* Method to load keywords from first file (separated by space)
* Method to count the number of occurrences of the keywords in the second file (lower case and upper case are equal)
* Method to print in the results file the number of times each keyword appears in the second file
* Exceptions

**Testing Report**

**Keywords file:**

public class

int double

string

**Text file:**

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  
 \* Author: Dr. Cathy Bareiss  
 \* Modifier: Manel Casado Garrigues  
 \* Course: CSC 121  
 \* Assignment: Second Lab -> Pay demo  
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/  
  
import java.io.\*;  
import java.util.\*;  
  
public class Pay {  
 public static void main(String[] args) {  
 Scanner keyboard;  
 int cost\_price;  
 int selling\_price;  
 int profit;  
   
 keyboard = new Scanner(System.in);  
 System.out.print("Which is the costs price? ");  
 cost\_price = keyboard.nextInt();  
 keyboard = new Scanner(System.in);  
 System.out.print("Which is the selling price? ");  
 selling\_price = keyboard.nextInt();  
 profit = selling\_price - cost\_price;   
 if (profit > 0)  
 System.out.println("The person made profit. He made " + profit + " dollars.");  
 if (profit == 0)  
 System.out.println("The person didn't make any money, he stayed at the same.");  
 if (profit < 0)  
 System.out.println("The person dind't make profit. He lost " + -profit + " dollars.");  
 }  
}

**Output:**

Loading keywords from keywords.txt  
Adding: public class  
Adding: int double  
Adding: string  
Loaded 5 keywords  
Analyzing: C:/Users/csstudent/Downloads/Profit.java  
/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  
 \* Author: Dr. Cathy Bareiss  
 \* Modifier: Manel Casado Garrigues  
 \* Course: CSC 121  
 \* Assignment: Second Lab -> Pay demo  
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/  
  
import java.io.\*;  
import java.util.\*;  
  
public class Pay {  
Found a keyword occurrence  
Found a keyword occurrence  
 public static void main(String[] args) {  
Found a keyword occurrence  
Found a keyword occurrence  
 Scanner keyboard;  
 int cost\_price;  
Found a keyword occurrence  
 int selling\_price;  
Found a keyword occurrence  
 int profit;  
Found a keyword occurrence  
   
 keyboard = new Scanner(System.in);  
 System.out.print("Which is the costs price? ");  
Found a keyword occurrence  
 cost\_price = keyboard.nextInt();  
Found a keyword occurrence  
 keyboard = new Scanner(System.in);  
 System.out.print("Which is the selling price? ");  
Found a keyword occurrence  
 selling\_price = keyboard.nextInt();  
Found a keyword occurrence  
 profit = selling\_price - cost\_price;   
 if (profit > 0)  
 System.out.println("The person made profit. He made " + profit + " dollars.");  
Found a keyword occurrence  
 if (profit == 0)  
 System.out.println("The person didn't make any money, he stayed at the same.");  
Found a keyword occurrence  
 if (profit < 0)  
 System.out.println("The person dind't make profit. He lost " + -profit + " dollars.");  
Found a keyword occurrence  
 }  
}

**Result file:**

2 public

1 class

10 int

0 double

1 string

**Time Spent**

This program and development report took me about 8/9 hours in total.

**Outside resources used**

Resources from the lectures, labs, and a friend from Spain were used to develop this program.

**Security report**

* No security problems

**Ethical report**

* There are no ethical issues with this software.

**Future Improvements**

* No keyword limits and maybe output the results reading the file

# Lessons learned

* How to use argument properly
* More arrays
* Getting better with methods