COMP1039 – PGP - Java
Lab 4

5.1

Use the **Scanner** to read an integer from the keyboard (use the method **nextInt()**) and then output its value to the console. For example, after executing your java program, the following string should appear:

“Enter an integer number:”

You then need to type in an integer number, e.g, 5. The corresponding output should be:

“The input integer number is 5”

You will also need to handle potential exceptions, for example, if a string or any other primitive type data is received by the scanner then an **InputMismatchException** will arise and you need to catch that exception and output the following string to the console:

“The input should be an integer.”

Don’t’ forget to import the **java.util** package as both the scanner class and the InputMismatchException are defined in this package.

5.2

Modify the program you have for task 5.1, such that it continuously read integers from the keyboard until 0 is received. It then output the total summation value to the console. As in 5.1, any potential exceptions should be handled. For example, if a string is passed to the scanner, the program will ask the user to type in another integer number rather than halt immediately.

Note, if you use nextInt() to read a non-integer value, an exception will arise and the current cursor will remain at the same position until this non-integer value is read.

5.3

Use the **BufferedReader** to read an integer from the keyboard. Other requirements are the same as in task 5.1. Remember you need to import package java.io to use the BufferedReader class. Use the integer type wrapper to translate a string to an integer will potentially cause the NumberFormatException.

5.4

Use the **BufferedReader** class to finish task 5.2.

5.5

Read the content of a file called input.txt, make all the alphabetic letters to uppercase and then write the results to a file called output.txt. You may find the java built-in method toUpperCase() useful, which is defined in the class String.

For example, if “se li As Tum 23” is stored in the input file, then we should write “SE LI AS TUM 23” to the output file.