| | The University of the West Indies |
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| | St. Augustine |
| | Department of Computing and Information Technology |
| | **INFO 1504 –Programming Fundamentals** |
| | **ASSIGNMENT # 3** |
| | **Date Due: 22 March, 2014 @ 12 noon** |

**Question 1.**

Write a Java program **Format.java**, to read a passage from an input file *passage.txt* and print to another file *newPassage.txt* the same passage with the following changes:

- Each sentence should be printed on a new line.
- All numbers should be removed.

The program should also keep track of and print (to the same file) how many times each vowel appears.

**Question 2.**

Write a Java program **ExtractNumber.java** to read the data via the keyboard, character by character and print the first number (with or without a decimal point) contained in the input. For example, given the input data: Mary works for $43.75 per hour, the program should print 43.75 to the screen.

**Question 3.**

A binary number is made up of only **0**s and **1**s. Write a Java program *Binary.java* that has a method *convert* that accepts an integer parameter and prints the binary equivalent of the integer. The main method should contain the code to prompt the user for the number and the call to the *convert* method. For example, if the integer parameter is **21**, the method should print "**10101**".

**Question 4.**

Create a Java method *nextLarger* that accepts two positive integer parameters *num* and *n* and returns the smallest digit within *num* that is larger than *n*. For example if num = 3875 and n = 6, your method should return 7. Write a Java program **Numbers.java** to test the method.