E5 – P20

The department of Motor Traffic (DMT) is responsible for issuing vehicle number plates. They want you to develop a Python program to determine the next vehicle number, when the previous (last released) number is given as input. You have to output the next number to the screen and to a text file. Assume that vehicle type are three wheelers, cars and motor bikes, and their valid number ranges are as follows:

- Three wheelers: AAA-0001 to AZZ-9999
- Cars: CAA-0001 to CZZ-9999
- Motor bikes: BAA-0001 to BZZ-9999

Note that a vehicle number contains only upper-case alphabetical letters, digits 0-9 and "-". If the previous number is CAB-9999 the next number should be CAC-0001. Assume that next number does not exceed the valid range.

Special requirement: You must <u>define at least 2 functions</u> and <u>use them</u> in your code.

Format:

<u>Input</u>:   file_name (the file contains the previous vehicle number in each line)

<u>Output</u>: Display on screen and write to the output file named "Output.txt" the next vehicle number for each previous number in the input, such that each output number is on a separate line.

Sample:

<u>Case 1</u>
Input: test_file1.txt
Content: AAA-0098
                    CAD-9999
                    BAZ-9999

Output: Output.txt
Content: AAA-0099
                    CAE-0001
                    BBA-0001

<u>Case 2</u>
Input: test_file2.txt
Content: ACA-0098
                    CAD-0098
                    BAA-0098

Output: Output.txt
Content: ACA-0099
                    CAD-0099
                    BAA-0099