

**GTS123**  
**Homework 5 (HW5)**

Only the accurately formatted filename will be graded. Please submit a Python file using the format "6601234567\_HW5.py" (\*\*StudentID\*\*\_HW5.py).

**Instruction:**

Write a Python program that prompts the user to input a paragraph line by line. The program should continue accepting lines until the user enters "END" (compare in case-insensitive and not include in statistic). Once finished, the program should analyze the entire paragraph and print out statistics on the following topics:

1. The number of words that appear once or twice
2. The number of words that appear three and four times
3. The number of words that appear more than four times

The program should compare words in a case-insensitive manner. Important: The program must remove punctuation (periods('.') and commas(',')) from the text before calculating statistics.

The program's input/output is formatted exactly as shown in the examples below.

**Example1 (The text in bold with underlining represents input for the program.)**

```
Enter a line (or 'END' to finish): Baa, baa black sheep
Enter a line (or 'END' to finish): Have you any wool
Enter a line (or 'END' to finish): Yes sir, yes sir
Enter a line (or 'END' to finish): Three bags full.
Enter a line (or 'END' to finish): One for my master
Enter a line (or 'END' to finish): And one for my dame
Enter a line (or 'END' to finish): And one for the little boy
Enter a line (or 'END' to finish): Who lives down the lane.
Enter a line (or 'END' to finish): end
1. Number of words that appear once or twice: 23
2. Number of words that appear three and four times: 2
3. Number of words that appear more than four times: 0
```

**Example2 (The text in bold with underlining represents input for the program.)**

```
Enter a line (or 'END' to finish): bat
Enter a line (or 'END' to finish): ant
Enter a line (or 'END' to finish): CAT BAT
Enter a line (or 'END' to finish): cat
Enter a line (or 'END' to finish): dog
Enter a line (or 'END' to finish): BaT
Enter a line (or 'END' to finish): END
1. Number of words that appear once or twice: 3
2. Number of words that appear three and four times: 1
3. Number of words that appear more than four times: 0
```

**Example3 (The text in bold with underlining represents input for the program.)**

```
Enter a line (or 'END' to finish): Old MacDonald had a farm, E I E I O.
Enter a line (or 'END' to finish): And on his farm he had a cow, E I E I O.
Enter a line (or 'END' to finish): With a moo moo here and a moo moo there,
Enter a line (or 'END' to finish): Here a moo, there a moo, everywhere a moo moo.
Enter a line (or 'END' to finish): Old MacDonald had a farm, E I E I O.
Enter a line (or 'END' to finish): end
1. Number of words that appear once or twice: 11
2. Number of words that appear three and four times: 3
3. Number of words that appear more than four times: 4
```

**Example4 (The text in bold with underlining represents input for the program.)**

Enter a line (or 'END' to finish): **A b c d**  
Enter a line (or 'END' to finish): **d c b a**  
Enter a line (or 'END' to finish): **AA a A**  
Enter a line (or 'END' to finish): **c c d d e f**  
Enter a line (or 'END' to finish): **end end**  
Enter a line (or 'END' to finish): **END**

1. Number of words that appear once or twice: 5
2. Number of words that appear three and four times: 3
3. Number of words that appear more than four times: 0