Q3. Finding Vocabularies (30 marks):

During an English writing lesson, students are given a paragraph selected from a story book. Suppose that the number of words in the paragraph is not more than 100. Students need to find out all the vocabularies that contain at least three vowels, and then convert these vocabularies in uppercase and show them on the whiteboard. The students are also required to count the number of vocabularies found in this category. Note that combining two words with a hyphen (-) or apostrophe (') is considered as one word. Moreover, repeated vocabulary must be ignored and not counted.

(**Hint**: The word "competition" contains 5 vowels. Meanwhile, "bed-time" and "they've" are respectively considered as one word.)

Write a program to

Input, a paragraph selected from a story book which consists of *n* words, where $1 \leq n \leq 100$.

Output, in sequence

(1) the list of vocabularies from the paragraph that contain at least three vowels (vowels can be duplicated); note that these vocabularies must be shown **in uppercase** and listed in the sequence as how they appear in the selected paragraph.
(2) the number of vocabularies found in this category.

Note:
1. Hyphen (-) and apostrophe (') are considered as part of the word, and thus they must not be removed.
2. Repeated vocabulary **must** be ignored and not counted.

试题 3. 寻找词汇（30 分）：

在英文写作课上，老师从一本故事书里挑选了一个段落供学生阅读。 已知段落中的字数不超过 100 字。 学生需要在段落里找出所有包含至少三个元音的词汇，再以大写的形式把这些词汇写在白板上，并把这类型的词汇的数量算出来。 请注意，若两个单词被连字符（-）或撇号（'）组合在一起时，这个组合词被视为一个单词。此外，重复的词汇必须忽略不计。

（**提示**："competition" 一词包含了 5 个元音。同时，"bed-time" 和 "they've" 分别被视为一个单词。）

试写一程式以

输入 选自故事书里的一个段落；已知此段落包含了 *n* 个单词，其中 $1 \leq n \leq 100$。

依序输出，
   (1)   按照它们在段落中出现的顺序，**以大写形式**列出所有包含至少三个元音（元音可以重复）的词汇。
   (2)   以上类型的词汇的数量。

请注意，
   1. 连字符 (-) 和撇号 (') 被视为单词的一部分，因此不能被删除。
   2. 重复的词汇**必须**忽略不计。

Test Cases:

Input (输入)	Output (输出)
I am sorry to say that Peter was not very well during the evening. His mother put him to bed, and made some camomile tea; and she gave a dose of it to Peter! "One table-spoonful to be taken at bed-time."	EVENING CAMOMILE TABLE-SPOONFUL BED-TIME 4
"Someone's been sitting in my chair and they've broken it to pieces," cried the Baby bear. They decided to look around some more and when they got upstairs to the bedroom, "Someone's been sleeping in my bed and she's still there!" exclaimed the Baby bear.	SOMEONE'S PIECES DECIDED AROUND UPSTAIRS BEDROOM SLEEPING EXCLAIMED 8
We approached the last hundred metres. I was only half a motorcycle's length behind him. With a final flick, we crossed the finish line. We looked up at the giant screen. A camera replay was being shown. It was too close to call a winner. "And the winner is Will!" the commentator boomed through the sound system.	APPROACHED MOTORCYCLE'S LOOKED CAMERA COMMENTATOR BOOMED 6
They say that a fool and his money are soon parted. Thus, I would be very careful with how I spend my money. I would invest my money with my parents' advice and keep some for rainy days.	CAREFUL ADVICE 2
The other, astonished to be addressed so familiarly by this common woman, did not recognize her. She stammered: "But, madame, I don't know. You must have made a mistake."	ASTONISHED ADDRESSED FAMILIARLY RECOGNIZE STAMMERED MADAME MISTAKE 7
Input (输入)	Output (输出)
He was a round-faced, jovial man and he ran the coal business, and people were sorry for him because he had no children and his wife was a scold. When he arrived in the square, carrying the black wooden box, there was a murmur of conversation among the villagers, and he waved and called. "Little late today, folks."	ROUND-FACED JOVIAL BUSINESS PEOPLE BECAUSE ARRIVED SQUARE WOODEN

4	CONVERSATION VILLAGERS 10
"The three bushes' branches were all broken. " "The elephants' trunks splashed in the water."	ELEPHANTS' 1
I immediately called my chief programming officer. A sore looking, depressed, fat guy entered my cabin. "Take that look off your face at once," I exclaimed. "I've found the solution to our problem!" I shouted happily.	IMMEDIATELY PROGRAMMING OFFICER LOOKING DEPRESSED ENTERED EXCLAIMED SOLUTION SHOUTED 9