Java → Implementation of basic algorithms → Searching a substring in Java

Java → Non-overlapping occurrences

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📊 Hard   🕐 7 minutes   ❓

Code Challenge — Write a program

Let i and j are starting and ending indexes of a substring s in some string, i' and j' are starting and ending indexes of a substring s' in the same string. s and s' are called non-overlapping if $i \leq j < i' \leq j'$.

Given two strings, a pattern and a text. Write a program that finds all non-overlapping occurrences of the pattern in the text.

Input: two strings, a pattern and a text, each is on a separate line.

Output: the first line should contain the number of non-overlapping occurrences of the pattern in the text. The second line should contain all indexes of such occurrences separated by space. For two overlapping substrings, consider as occurrence the one that has the least starting index. If there are no occurrences output only one line with 0.

NB: the empty string is a substring for any string (see the second test case).

Sample Input 1:

```
aba
abababababab
```

Sample Output 1:

```
2
0 4
```

Sample Input 2:

```
abc
```

Sample Output 2:

```
1
0
```

Sample Input 3:

```
aba
```

Sample Output 3:

```
0
```

Code Editor   **IDE**

🧊 Solve in IDE

✔ **IDE is responding** IntelliJ IDEA 2019.3

✔ **Plugin is responding** 3.2-2019.3-3686

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SK   Share something, Sergey Kubatko

[Post]   Please do not post solutions here

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KP   **Konstantin Proskurnya** about 1 month ago   Report

for test 5 - where pattern and empty text - return just 0 and nothing else. So wierd.
Please describe all corner cases in description.

♡ 0   **Reply**

V   **VagrantOS** 5 months ago   Report

f you stumble at the annoying test where the text is an empty string and the pattern is empty,
then simply print "1" as the number of times it occurs and "0" as the index (I know it doesn't make any sense). And don't waste your time guessing what the output should be. It is so annoying.

♡ 0   **Reply**

V   **VagrantOS** 5 months ago   Report

You should state the expected output when both the pattern and text are empty or blank.
The expected case should be similar to sample input number 2, but apparently you want something else.
Please clarify.

♡ 0   **Reply**

U1   **User 149604** 6 months ago   Report

Downloaded test file is empty (#3).

♡ 0   **Reply**

J   **JoyceS** 6 months ago   Report

need to clarify on more empty string cases:
1. what if both text and pattern are empty
2. what if text is empty but pattern is not
3. what if pattern is empty but text is not (mentioned)

♡ 0   **Reply**

U   **usr** 11 months ago   Report

Also no examples or description with empty substring ("") and non empty string.

♡ 0   **Reply**

U   **usr** 11 months ago   Report

ok, here is example: substring "aa" and string "aaaaaa". so for i = 0 indexes will be only 0 2? or maybe 0 2 4? But it's also possible 0 3 and 0 4. And what should i print in this case?
And for i = 1 there are other possible results, should i count them too?
According to task description "The second line should contain all indexes of such occurrences separated by space". And ALL means ALL.

♡ 0   **Reply**