Count Occurrences

Write a function that counts the occurrences of each character in some arbitrary text.

Although the code examples here are given in Java, you may use any programming language you would like.

Here is an example Java function signature for this problem.

```
CharacterOccurrences[] countOccurrences(String text)
```

`CharacterOccurrences` is a simple object (optionally defined as a `record`)

```
record CharacterOccurrences(char character, int numberOfOccurrences) {
}
```

Input

The function should take one parameter: a String containing some arbitrary text. Assume the input only contains characters in the standard ASCII set of characters. Specifically, character codes 0 through 127.

Output

The function should return an array of `CharacterOccurrences` objects (as defined above) representing the number of times each distinct character in the input text occurred. It should be returned in ASCII code order. Do not include `CharacterOccurrences` entries for characters with zero occurrences.

Example

Input

```
"Typical Sentence"
```

Output

```
new CharacterOccurrences[]{
        new CharacterOccurrences(' ', 1),
        new CharacterOccurrences('S', 1),
        new CharacterOccurrences('T', 1),
        new CharacterOccurrences('a', 1),
        new CharacterOccurrences('c', 2),
        new CharacterOccurrences('e', 3),
        new CharacterOccurrences('i', 1),
        new CharacterOccurrences('l', 1),
        new CharacterOccurrences('n', 2),
        new CharacterOccurrences('p', 1),
        new CharacterOccurrences('t', 1),
        new CharacterOccurrences('y', 1)
}
```