

Backend Coding Challenge

Task

Write an application that finds the 3 longest unique palindromes in any supplied string. For the 3 longest palindromes, report the palindrome, start index and length, in descending order of length.

Example Output

Given the example input string: `sqrrqabccbatudefggfedvwhijkllkjihxymnmzpop`, the output should be:

```
Text: hijkllkjih, Index: 23, Length: 10
```

```
Text: defggfed, Index: 13, Length: 8
```

```
Text: abccba, Index: 5, Length: 6
```

Given the example input string: `aaa`, the output should be:

```
Text: aaa, Index: 0, Length: 3
```

Deliverables

- Solution must solve the task with a plain Console application.
- Your solution should be submitted in C#.
- Please include instructions for how to build and run your code in a Readme file. You can include here any assumptions you made to resolve the task.
- Don't forget to include any tests in the package.
- The solution may be submitted as a zip via email.

Guidance

- We expect candidates to create code that is production quality.

- We prefer simple algorithms, efficiency is a plus.
- The solution should follow good practices, be correct, maintainable and reusable.
- The example outputs provide **some** of the corner cases you should consider.