# **Palindrome Substring Coding Challenge**

# Task

Palindrome - is a word, number, phrase, or other sequence of characters which reads the same backward as forward, such as 'madam' or 'racecar'. Note that a single character is also a palindrome, for example "a", "b" etc., as they also read the same backward and forward.

Write a function that accepts a string and returns the longest possible palindromic <u>substring</u> of the string.

NB: you can assume that there will be only one longest palindromic substring.

### Sample Input

string = "wrtfawmnoonmz"

# **Sample Output**

"mnoonm"

# Hints

- Try generating all possible substrings and check their palindrome characteristics.
- Remember that a palindrome is a string that is 'mirrored' and is symmetrical with respect to
  its centre (the centre can be a char odd length or an empty string even length). Therefore,
  it is possible to check 'palindromicity' of a string by expanding from its centre and checking
  whether the left and the right sides are mirrored.