Check Substring: Given two strings, write a method to decide if one is a substring of the other.

Example:

str1: car str1Len = 3

str2: racecar str2Len = 7

initial idea:

1) find the first instance of the shorter string's first letter in the longer string (if both string's lengths are the same this doesn't matter).
2) Have a counter to keep track of the number of consecutive matching letters between the two.
3) Reset the counter if the letters don't match.
4) when the counter is the length of the shorter string, return true.

Implementation:

```
isSubstring (str1, str2) {
    let shortStr, longStr;
    if (str1.length < str2.length){
        shortStr = str1;
        longStr = str2;
    } else if( str1.length > str2.length){
        shortStr = str2;
        longStr = str1;
    } else if (str1 === str2){
        return true;
    } else {
```

```
        return false;
    }

    let subCounter = 0;

    for (let i=0; i < longStr.length; i++) {
        if ( longStr[i] === shortStr[subCounter]) {
            subCounter++;
            if(subCounter = shortStr.length){
                return true;
            }
        } else {
            subCounter = 0;
        }
    }
    return false;
}
```

Complexity:

Time: O(n), where n is the length of the longer input string

Space: O(m+n), the combined lengths of the input strings. Ideally this should be constant...