Assignment 5 - Strings

1. Take as input S, a string. Write a function that returns true if the string is a palindrome and false otherwise. Print the value returned.
2. Take as input S, a string. Write a function that returns the count of substrings of this string which are palindromes. Print the value returned.
3. Take as input S, a string. Write a function that toggles the case of all characters in the string. Print the value returned.
4. Take as input S, a string. Write a function that replaces every odd character with the character having just higher ascii code and every even character with the character having just lower ascii code. Print the value returned.
5. Take as input S, a string. Write a function that inserts between each pair of characters the difference between their ascii codes. Print the value returned.
6. Take as input S, a string. Write a function that prints all its subsequences.
7. Take as input S, a string. Write a function that prints all its permutations.
8. Take as input S, a string. Write a function that returns the character with maximum frequency. Print the value returned.
9. Take as input S, a string. Write a function that removes all consecutive duplicates. Print the value returned. E.g. for input "aabccba" print "abcba".
10. Take as input S, a string. Write a function that does basic string compression. Print the value returned. E.g. for input “aaabbccds” print out a3b2c2ds.