## **Practice Problem Set 7**

1. Write a C program to find the length of a string.

Examples

| Input       | Output |
|-------------|--------|
| Hello World | 11     |

2. Write a C program to toggle case of each character in a string.

Examples

| Input       | Output      |
|-------------|-------------|
| Hello WoRlD | hELLO wOrLd |

3. Write a C program to count total number of alphabets, digits and special characters in a string.

Examples

| Input                        | Output                 |
|------------------------------|------------------------|
| Hello 123 &/_ How are *** 45 | Alphabets: 11          |
|                              | Digits: 5              |
|                              | Special Characters: 12 |

4. Write a C program to count total number of vowels and consonants in a string.

Examples

| Input            | Output       |
|------------------|--------------|
| Do it Just Do it | Vowel: 5     |
|                  | Consonant: 7 |

5. Write a C program to count the frequency of all characters in a string.

Examples

| Input       | Output   |
|-------------|--|
| Hello World | H = 1, e = 1, l = 3, l = 3, o = 2, ', = 1, W = 1, o = 2, r = 1, l = 3, d=1 |

6. Write a C program to check if a string is palindrome or not.

Examples

| r     |                  |
|-------|------------------|
| Input | Output           |
| abba  | Palindrome       |
| hello | Not a palindrome |

7. Write a C program to find the prefixes of a string

Examples

| Input      | Output     |  |
|------------|------------|--|
| helloworld | h          |  |
|            | he         |  |
|            | hel        |  |
|            | hell       |  |
|            | hello      |  |
|            | hellow     |  |
|            | hellowo    |  |
|            | hellowor   |  |
|            | helloworl  |  |
|            | helloworld |  |

8. Write a C program to find the suffixes of a string Examples

| Input      | Output     |
|------------|------------|
| helloworld | helloworld |
|            | helloworl  |
|            | hellowor   |
|            | hellowo    |
|            | hellow     |
|            | hello      |
|            | hell       |
|            | hel        |
|            | he         |
|            | h          |