- 1. Write a program in C to find the length of a string without using library function
- 2. Write a program in C to separate the individual characters from a string.
- 3. Write a program in C to print individual characters of string in reverse order.
- 4. Write a program in C to count the total number of words in a string.

 Input the string: This is ADAM

Expected Output:

Total number of words in the string is: 3

5. Write a program in C to compare two strings without using string library functions.

Test Data:

Check the length of two strings:

Input the 1st string : aabbcc Input the 2nd string : abcdef

String1: aabbcc String2: abcdef

Expected Output: Strings are not equal.

Check the length of two strings:

.____

Input the 1st string : aabbcc Input the 2nd string : aabbcc

String1: aabbcc String2: aabbcc

Expected Output: Strings are equal.

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

Test Data:

Input the string: Welcome to w3resource.com

Expected Output:

Number of Alphabets in the string is : 21 Number of Digits in the string is : 1

Number of Special characters in the string is: 4

- 7. Write a program in C to copy one string to another string.
- 8. Write a program in C to count the total number of vowels or consonants in a string.
- 9. Write a program in C to find the maximum occurring character in a string.
- 10. Write a C program to sort a string array in ascending order.
- 11. Write a program in C to read a string through a keyboard and sort it using bubble sort.

Test Data :
Input number of strings :3
Input string 3 :
zero
one
two
Expected Output :
The strings appears after sorting :
one
two
zero

- 12. Write a program in C to extract a substring from a given string
- 13. Write a C program to check whether a given substring is present in the given string.
- 14. Write a program in C to read a sentence and replace lowercase characters by uppercase and vice-versa
- 15. Write a program in C to find the number of times a given word 'the' appears in the given string.
- 16. Write a program in C to remove characters in String Except Alphabets
 Test Data:

Input the string: google.com

Expected Output:

After removing the Output String: googlecom

17. Write a program in C to Find the Frequency of Characters

- 18. Write a program in C to Concatenate Two Strings Manually.
- 19. Write a program in C to find the largest and smallest word in a string.
- 20. Write a program in C to convert a string to lowercase
- 21. Write a program in C to check whether a character is Hexadecimal Digit or not. Use function <code>isxdigit(TestChar)</code>

Test Data:

Input a character: 7

Expected Output:

The entered character is a hexadecimal digit.

```
Implementation of hexadecimal.
void checkHex(string s)
    // Size of string
    int n = s.length();
    // Iterate over string
    for (int i = 0; i < n; i++)
        char ch = s[i];
        // Check if the character
        // is invalid
        if ((ch < '0' || ch > '9') &&
            (ch < 'A' || ch > 'F'))
            cout << "No" << endl;</pre>
            return;
        }
    // Print true if all
    // characters are valid
    cout << "Yes" << endl;</pre>
// Driver code
```

```
int main()
{
    // Given string
    string s = "BF57C";

    // Function call
    checkHex(s);

    return 0;
}
```

22. Write a program in C to replace the spaces of a string with a specific character.

Test Data:

Input a string: Be glad to see the back of Input replace character: *

Expected Output:

After replacing the space with * the new string is : Be*glad*to*see*the*back*of*

23. Write a program in C to count the number of punctuation characters that exists in a string.

Test Data:

Input a string: The quick brown fox, jumps over the, lazy dog.

Expected Output:

The punctuation characters exists in the string is: 3

- 24. Write a program in C to read a file and remove the spaces between two words of its content.
- 25. Write a program in C to check whether a character is digit or not.
- 26. Write a C programming to find the repeated character in a given string.

Test Data:

Input a string: rover

Expected Output:

Input a string: The first repetitive character is: r

27. Write a C programming to count each character in a given string.

Enter a str1ing: The count of each character in the string rovere is

- r 2
- o 1
- v 1
- e 2
- 28. Write a C programming to find the length of the longest substring of a given string without repeating characters.

Input a string: "abcddefffd"

Expected Output:

Input a string: Length of the longest substring without repeating characters: 4

29. A given string contains the bracket characters '(', ')', '{', '}', '<', '>', '[' and ']', Write a C programme to check the said string is valid or not. The input string will be valid when open brackets and closed brackets are same type of brackets

Input a string: <>()[]{}

Expected Output:

Check bracket in the said string is valid or not? 1

30. Write a C programming to reverse all the vowels present in a given string. Return the new string.

Input a string: "AEIou"

Expected Output:

Input a string: Check bracket in the said string is valid or not? "uoIEA"