1. **Check if a given string is palindrome or not.**

   Code:-

```
#include <iostream>
#include <string>
using namespace std;

bool isPalindrome(const string& str) {
    int start = 0, end = str.length() - 1;

    while (start < end) {
        if (str[start] != str[end]) {
            return false; // Not a palindrome
        }
        start++;
        end--;
    }
    return true; // It's a palindrome
}

int main() {
    string input;
    cout << "Enter a string: ";
    cin >> input;

    if (isPalindrome(input)) {
        cout << "\"" << input << "\" is a palindrome." << endl;
```

```
    } else {
        cout << "\"" << input << "\" is not a palindrome." << endl;
    }

    return 0;
}
```

2.Count the number of vowels, consonants, spaces in string.

Code:-

```
#include <iostream>
#include <string>
using namespace std;

void countCharacters(const string& str, int& vowels, int& consonants,
int& spaces) {
    vowels = consonants = spaces = 0;

    for (char ch : str) {
        if (isalpha(ch)) { // Check if it's a letter
            char lower = tolower(ch);
            if (lower == 'a' || lower == 'e' || lower == 'i' || lower == 'o' ||
lower == 'u') {
                vowels++;
            } else {
                consonants++;
            }
        } else if (isspace(ch)) { // Check if it's a space
```

```
            spaces++;
        }
    }
}

int main() {
    string input;
    cout << "Enter a string: ";
    getline(cin, input); // Read the entire line, including spaces

    int vowels, consonants, spaces;
    countCharacters(input, vowels, consonants, spaces);

    cout << "Number of vowels: " << vowels << endl;
    cout << "Number of consonants: " << consonants << endl;
    cout << "Number of spaces: " << spaces << endl;

    return 0;
}
```

3.Find the ASCII value of character.

Code:-

```
#include <iostream>
using namespace std;

int main() {
```

```
    char character;
    cout << "Enter a character: ";
    cin >> character;

    int asciiValue = static_cast<int>(character);
    cout << "The ASCII value of '" << character << "' is: " << asciiValue << endl;

    return 0;
}
```

4.Remove all vowels from a string.

Code:-

```
#include <iostream>
#include <string>
using namespace std;

string removeVowels(const string& str) {
    string result = "";
    for (char ch : str) {
        char lower = tolower(ch);
        if (lower != 'a' && lower != 'e' && lower != 'i' && lower != 'o' && lower != 'u') {
            result += ch; // Add non-vowel characters to the result
        }
    }
    return result;
}

int main() {
    string input;
    cout << "Enter a string: ";
```

```
    getline(cin, input); // Read the entire line, including spaces

    string result = removeVowels(input);
    cout << "String after removing vowels: " << result << endl;

    return 0;
}
```

4.Remove space from a string.

Code:-

```
#include <iostream>
#include <string>
using namespace std;

string removeSpaces(const string& str) {
    string result = "";
    for (char ch : str) {
        if (!isspace(ch)) { // Check if the character is not a space
            result += ch;
        }
    }
    return result;
}

int main() {
    string input;
    cout << "Enter a string: ";
    getline(cin, input); // Read the entire line, including spaces

    string result = removeSpaces(input);
    cout << "String after removing spaces: " << result << endl;

    return 0;
}
```