

**CODE:**

```
#include <iostream>

#include <string>

using namespace std;

string encryptCaesarCipher(const string& text, int shift) {
    string result = "";
    for (char c : text) {
        if (isalpha(c)) {
            char base = isupper(c) ? 'A' : 'a';
            result += char((c - base + shift) % 26 + base);
        } else {
            result += c;
        }
    }
    return result;
}

string decryptCaesarCipher(const string& text, int shift) {
    return encryptCaesarCipher(text, 26 - shift);
}

int main() {
    string plaintext = "Hello, World!";
    int shift = 3;
    string encryptedText = encryptCaesarCipher(plaintext, shift);
    string decryptedText = decryptCaesarCipher(encryptedText, shift);
    cout << "Original Text: " << plaintext << endl;
    cout << "Encrypted Text: " << encryptedText << endl;
}
```

```
    cout << "Decrypted Text: " << decryptedText << endl;  
    return 0;  
}
```

**OUTPUT:**

Original Text: Hello, World!

Encrypted Text: Khood, Zruog!

Decrypted Text: Hello, World!