

```
1 #include <iostream>
2 #include <string>
3
4 using namespace std;
5
6 // Function to encrypt text using Caesar Cipher
7 string caesarEncrypt(const string& text, int shift) {
8     string result = "";
9     for (char c : text) {
10         // Encrypt uppercase letters
11         if (isupper(c)) {
12             result += char((c - 'A' + shift) % 26 + 'A');
13         }
14         // Encrypt lowercase letters
15         else if (islower(c)) {
16             result += char((c - 'a' + shift) % 26 + 'a');
17         }
18         else {
19             result += c; // Non-alphabetical characters are not changed
20         }
21     }
22     return result;
23 }
24
25 // Function to decrypt text using Caesar Cipher
26 string caesarDecrypt(const string& text, int shift) {
27     string result = "";
28     for (char c : text) {
29         // Decrypt uppercase letters
30         if (isupper(c)) {
31             result += char((c - 'A' - shift + 26) % 26 + 'A');
32         }
33         // Decrypt lowercase letters
34         else if (islower(c)) {
35             result += char((c - 'a' - shift + 26) % 26 + 'a');
36         }
37         else {
38             result += c; // Non-alphabetical characters are not changed
39         }
40     }
41     return result;
42 }
43
44 int main() {
45     string text;
46     int shift = 3; // Shift value for encryption
47     int choice;
48
49     // Ask the user what they want to do
```

```
50     cout << "Choose an option:" << endl;
51     cout << "1. Encrypt text" << endl;
52     cout << "2. Decrypt text" << endl;
53     cout << "Enter choice (1 or 2): ";
54     cin >> choice;
55     cin.ignore(); // To ignore the newline character left by cin
56
57     if (choice == 1) {
58         // Encrypt mode
59         cout << "Enter text to encrypt: ";
60         getline(cin, text);
61         string encrypted = caesarEncrypt(text, shift);
62         cout << "Encrypted text: " << encrypted << endl;
63     }
64     else if (choice == 2) {
65         // Decrypt mode
66         cout << "Enter the encrypted text to decrypt: ";
67         getline(cin, text);
68         string decrypted = caesarDecrypt(text, shift);
69         cout << "Decrypted text: " << decrypted << endl;
70     }
71     else {
72         cout << "Invalid choice! Please enter 1 or 2." << endl;
73     }
74
75     return 0;
76 }
77
```