

Screenshot program shift cipher

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Source Code :

```
/*  
    Affine Cipher  
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*/  
  
#include <iostream>  
#include <windows.h>  
#include <algorithm>  
#include <string>  
using namespace std;  
  
string encrypt(string text, int key)  
{  
    string encrypted;  
    for (int i = 0; i < text.length(); ++i)  
    {  
        if (text[i] >= 'a' && text[i] <= 'z')  
        {  
            encrypted += char(int(text[i] - 'a' + key) % 26 + 'a');  
        }  
        else if (text[i] >= 'A' && text[i] <= 'Z')  
        {  
            encrypted += char(int(text[i] - 'A' + key) % 26 + 'A');  
        }  
        else  
        {  
            encrypted += text[i];  
        }  
    }  
    return encrypted;  
}  
  
string decrypt(string text, int key)  
{  
    string decrypted;
```

```

for (int i = 0; i < text.length(); ++i)
{
    if (text[i] >= 'a' && text[i] <= 'z')
    {
        decrypted += char(int(text[i] - 'a' - key) % 26 + 'a');
    }
    else if (text[i] >= 'A' && text[i] <= 'Z')
    {
        decrypted += char(int(text[i] - 'A' - key) % 26 + 'A');
    }
    else
    {
        decrypted += text[i];
    }
}
return decrypted;
}

int main()
{
    char choice;
    int key1;
    int key2;
    string text;
    while (true)
    {
        cout << "1. Encrypt" << endl;
        cout << "2. Decrypt" << endl;
        cout << "3. Exit" << endl;
        cout << "Please chose action (1/2/3)" << endl;
        cin >> choice;
        cin.ignore();
        if (choice == '3')
        {
            cout << "BYE BYE";
            break;
        }
        else if (choice == '2')
        {
            cout << "Input text: " << endl;
            getline(cin, text);
            cout << "Input key: ";
            cin >> key1;

            cout << "Plain text: " << decrypt(text, key1) << endl

```

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        << endl;
    }
    else if (choice == '1')
    {
        cout << "Input text: " << endl;
        getline(cin, text);
        cout << "Input key: ";
        cin >> key1;

        cout << "Cipher text: " << encrypt(text, key1) << endl
             << endl;
    }
    else
    {
        cout << "Input tidak ada di pilihan" << endl;
    }
}
}

```

Running program:

```

1. Encrypt
2. Decrypt
3. Exit
Please chose action (1/2/3)
1
Input text:
nabil
Input key: 3
Cipher text: qdelo

1. Encrypt
2. Decrypt
3. Exit
Please chose action (1/2/3)
2
Input text:
qdelo
Input key: 3
Plain text: nabil

1. Encrypt
2. Decrypt
3. Exit
Please chose action (1/2/3)
3
BYE BYE

```