CNS LAB

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Assignment 4

Aim - Given the plain text, encrypt it using Vigenere Encryption Algorithm

Vigenere Cipher Encryption Algorithm

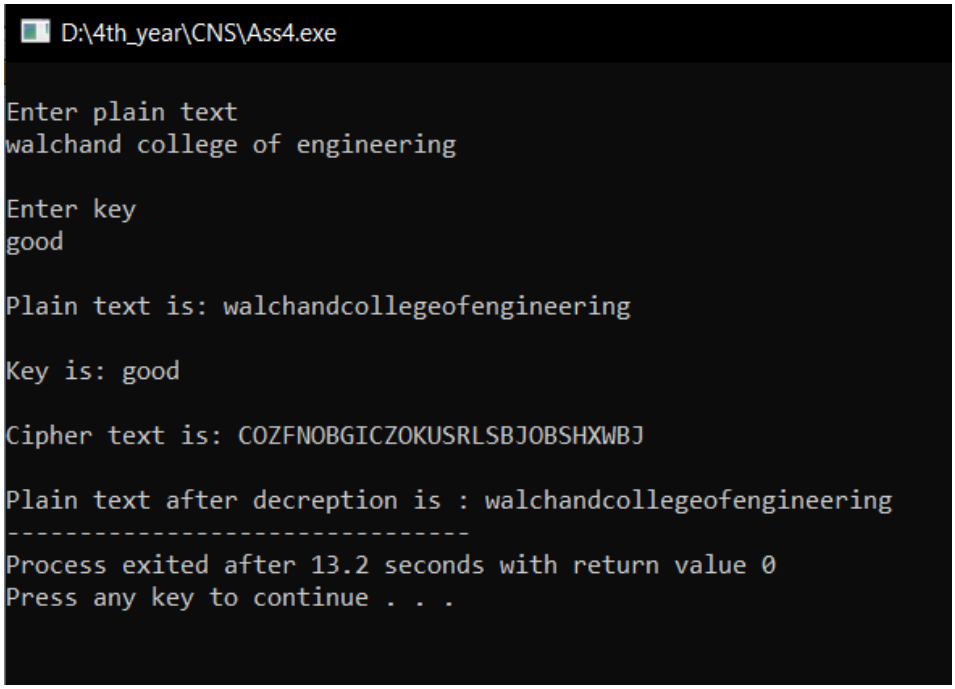
It uses a simple form of polyalphabetic cipher
In this cipher we add the respective character of a key in the plain text and substitute the character.

Code:

```
string s;
cout << "Enter plain text" << endl;
getline(cin, s);

string x;
for (int i = 0; i < s.length(); i++)
if (s[i] != ' ')
x += s[i];
s = x;



string k;
cout << "Enter key" << endl;
cin >> k;

cout << "\nPlain text is: " << s << endl; cout
<< "Key is: " << k << endl;


int point = 0;
int ks = k.size();
```

```
for (int i = 0; i < s.length(); i++)
{

int val = s[i] - 'a' ;
int val2 = k[point] - 'a' ;

point = (point + 1) % ks;

val += val2;
val = val % 26;
char ch = 'a' + val;
s[i] = ch;
}

string cip = s;
transform(cip.begin(), cip.end(), cip.begin(), ::toupper); cout

<< "\nCipher text is: " << cip;



point = 0;
for (int i = 0; i < s.length(); i++)
{

int val = s[i] - 'a' ;
int val2 = k[point] - 'a' ;

point = (point + 1) % ks;

val -= val2;
val = (val + 26) % 26;

char ch = 'a' + val;
s[i] = ch;
}

cout << "\n\nPlain text after decreption is : " << s;
```

TestCases :


D:\4th_year\CNS\Ass4.exe
Enter plain text
walchand college of engineering
Enter key
good
Plain text is: walchandcollegeofengineering
Key is: good
Cipher text is: COZFNOBGICZOKUSRLSBJOBSHXWBJ
Plain text after decreption is : walchandcollegeofengineering
Process exited after 13.2 seconds with return value 0
Press any key to continue . . .