**Vigenere Cipher code**

#include <iostream>

#include <string>

using namespace std;

class Vigenere

{

public:

string key;

Vigenere(string key)

{

for (int i = 0; i < key.size(); ++i)

{

if (key[i] >= 'A' && key[i] <= 'Z')

this->key += key[i];

else if (key[i] >= 'a' && key[i] <= 'z')

this->key += key[i] + 'A' - 'a';

}

}

string encrypt(string text)

{

string out;

for (int i = 0, j = 0; i < text.length(); ++i)

{

char c = text[i];

if (c >= 'a' && c <= 'z')

c += 'A' - 'a';

else if (c < 'A' || c > 'Z')

continue;

out += (c + key[j] - 2 \* 'A') % 26 + 'A';

j = (j + 1) % key.length();

}

return out;

}

string decrypt(string text)

{

string out;

for (int i = 0, j = 0; i < text.length(); ++i)

{

char c = text[i];

if (c >= 'a' && c <= 'z')

c += 'A' - 'a';

else if (c < 'A' || c > 'Z')

continue;

out += (c - key[j] + 26) % 26 + 'A';

j = (j + 1) % key.length();

}

return out;

}

};

int main()

{

Vigenere cipher("VIGENERECIPHER");

string original =

"Quickheal Academy";

string encrypted = cipher.encrypt(original);

string decrypted = cipher.decrypt(encrypted);

cout << original << endl;

cout << "Encrypted: " << encrypted << endl;

cout << "Decrypted: " << decrypted << endl;

}