

Name: Mohan Ramchandra Patil

Reg. No : 19141267

IS Exp1.A - The Ceaser Cipher Technique

```
#include<bits/stdc++.h>
using namespace std;
```

//code for encryption

```
string encrypt(string s,int k)
{
    string res="";
    for(int i=0;i<s.length();i++)
    {
        if(s[i]==32)
            res+=s[i];
        else{
            if(isupper(s[i]))
                res+=char(int(s[i]-65+k)%26 +65);
            else
                res+=char(int(s[i]-97+k)%26 +97);
        }
    }
    return res;
}
```

//code for decryption

```
string decrypt(string s,int k)
{
    string res="";
    for(int i=0;i<s.length();i++)
    {
        if(s[i]==32)
            res+=s[i];
        else{
            if(isupper(s[i]))
                res+=char(int(s[i]-65-k)%26 +65);
            else
                res+=char(int(s[i]-97-k)%26 +97);
        }
    }
    return res;
}
```

```
int main()
{
    string s;
    cout<<"Program of ceaser cipher!!!"<<endl;
    int ch,k;
    cout<<"Enter text: ";
    getline(cin,s);
    cout<<"Enter key: ";
    cin>>k;
    cout<<"1.encryption"<<endl;
    cout<<"2.decryption"<<endl;
```

```
cout<<"3.exit"<<endl;
cout<<"Enter your Choice: ";
cin>>ch;
switch(ch)
{
    case 1:
        cout<<"Plane text: "<<s<<endl;
        cout<<"Key for Encryption: "<<k<<endl;
        cout<<"Cipher text :"<<encrypt(s,k)<<endl;
        break;
    case 2:
        cout<<"Cipher text: "<<s<<endl;
        cout<<"Key for Decryption: "<<k<<endl;
        cout<<"Plane text :"<<decrypt(s,k)<<endl;
        break;
    case 3:
        cout<<"Exit.."<<endl;
        break;
    default:
        cout<<"Wrong choice.";
}
return 0;
}
```

Output:

```
Enter a message to encrypt: HELLO MOHAN
Enter key: 3
Encrypted message: KHOOR PRKDQ
```

```
Enter a message to decrypt: KHOOR PRKDQ
Enter key: 3
Decrypted message: HELLO MOHAN
```