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Course :- BSC IT 6th Sem

Subject :- Information Security & Cyber Law

OS2

C Program of OTP

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

String One_timepad_Encription ( String plaintext, String key)
{
    String withoutspace_plaintext = "";
    String without_space_key_value = "";

    for (int i = 0; i < plainText.size(); i++)
    {
        if ((plainText[i] >= 'A' && plaintext[i] <= 'Z')
            || (plaintext[i] >= 'a' && plaintext[i] <= 'z'))
        {
            without space plaintext += to upper(Plaintext[i]);
        }
    }
}
```

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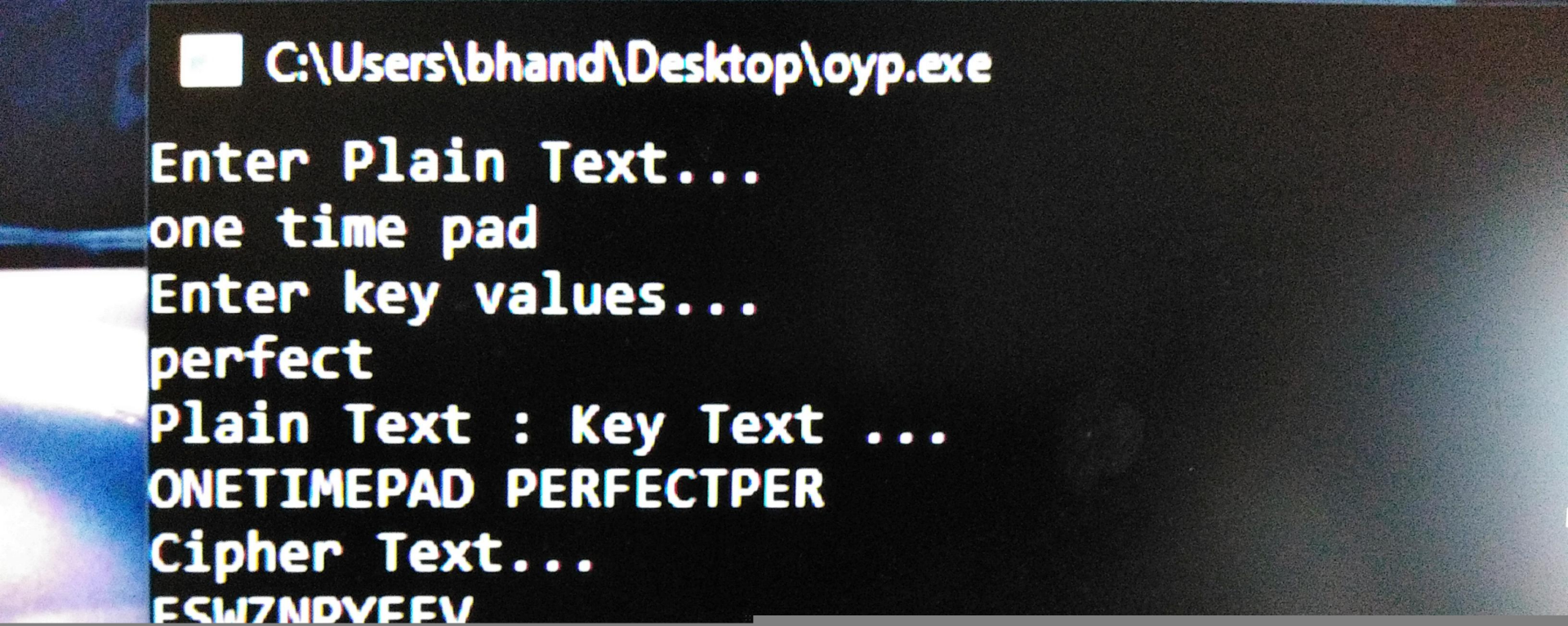
```
for(int i=0; i<keyvalue.size(); i++)
{
  if((keyvalues[i] >= 'A' && keyvalue[i] <= 'Z')
  || (keyvalue[i] >= 'a' && keyvalue[i] <= 'z'))
  {
    withoutspacekeyvalue += toupper(keyvalue[i]);
  }
}
int ln1 = withoutspacePlaintext.size();
int ln2 = withoutspacekeyvalue.size();
string newKeyValue = "";
String finalKeyVal = "";
if (ln1 > ln2)
{
  int extra = ln1 - ln2;
  int extratime = extra / ln2;
  if (extra % ln2 != 0)
  { extratime++; }
  int cnt = 0; // for count.
```

Shuss

```
while ( cnt <= extrafine)
{
    for(int i=0; i<ln2; i++)
    {
        newKeyValues += withoutSpaceKeyVals[i];
        cnt++;
    }
}

for (int i=0; i<ln1; i++)
{
    finalKeyValues += newKeyVals[i];
}
}
else if (ln1 <= ln2)
{
    for ( int i=0; i<ln1; i++)
    {
        finalKeyValue += withoutSpace-
                         KeyVal[i];
    }
}
String ansCiphertext = " ";
for (int i=0; i<ln1; i++)
{
```

```
int sum = ((withoutSpacePlaintTesct[i] - 'A')
        + (FinalKeyValue[i] - A) + 1) % 26;

ansCipertesct += (sum + 'A');
}

cout << "Plaint Tesct : Key Tesct --" << endl;
cout << withoutSpacePlaintTesct << " " finalKeyvar <<
        endl;

return ansCiphe Tesct;

} // function end

int main()
{
    string plaintesct, Key value;
    cout << "Enter Pault xt " << endl;
    getline (cin, plaintesct);

    cout << "Enter Key << endl;
    getlin (cin, Keyvalue);

    string ans = One_time_Pad_Encript_i(plaittesct, Keyvar);
    cout << "Ciphertesct << ans ;
}
```

Shaanosh


C:\Users\bhand\Desktop\oyp.exe
Enter Plain Text...
one time pad
Enter key values...
perfect
Plain Text : Key Text ...
ONETIMEPAD PERFECTPER
Cipher Text...