

**Walchand College Of Engineering, Sangli**  
**Department of Computer Science and Engineering**  
**Subject: C&NS Lab**

**Batch: B4**

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**PRN:2020BTECS00210**

**Assignment 2**

**Title:** Cryptanalysis on Caesar cipher.

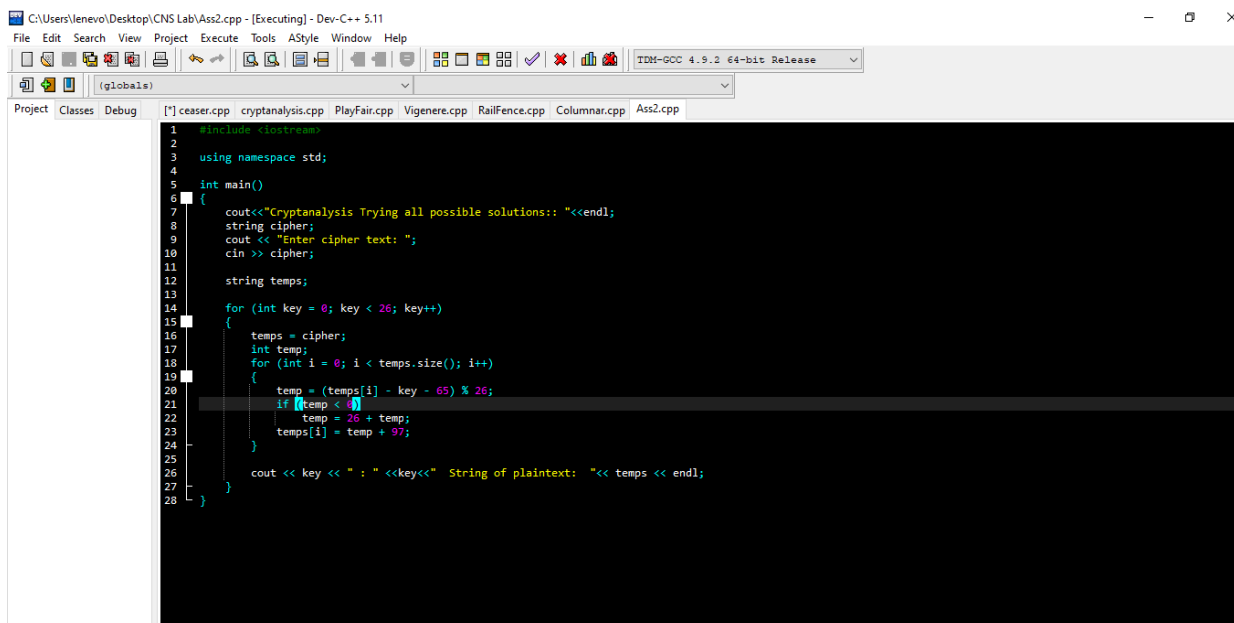
**Introduction:**

Cryptanalysis is the art of breaking codes and ciphers. The Caesar cipher is probably the easiest of all ciphers to break. Since the shift has to be a number between 1 and 25, (0 or 26 would result in an unchanged plaintext) we can simply try each possibility and see which one results in a piece of readable text.

Code:

Link: <https://github.com/gayatrig21/Cryptology-practicals/tree/Assignment-2>

Screenshots:



```
1 #include <iostream>
2
3 using namespace std;
4
5 int main()
6 {
7     cout<<"Cryptanalysis Trying all possible solutions:: "<<endl;
8     string cipher;
9     cout << "Enter cipher text: ";
10    cin >> cipher;
11
12    string temps;
13
14    for (int key = 0; key < 26; key++)
15    {
16        temps = cipher;
17        int temp;
18        for (int i = 0; i < temps.size(); i++)
19        {
20            temp = (temps[i] - key - 65) % 26;
21            if (temp < 0)
22                temp = 26 + temp;
23            temps[i] = temp + 97;
24        }
25        cout << key << " : " <<key<<" String of plaintext: "<< temps << endl;
26    }
27 }
28 }
```

## Output:

```
C:\Users\lenevo\Desktop\CNS Lab\Ass2.exe
Cryptanalysis Trying all possible solutions::
Enter cipher text: ICACVTK
0 : 0 String of plaintext: icacvtk
1 : 1 String of plaintext: hbzbusj
2 : 2 String of plaintext: gayatri
3 : 3 String of plaintext: fzxzsqh
4 : 4 String of plaintext: eywyrpg
5 : 5 String of plaintext: dxvxqof
6 : 6 String of plaintext: cuuwpne
7 : 7 String of plaintext: bvtvond
8 : 8 String of plaintext: ausunlc
9 : 9 String of plaintext: ztrtmkb
10 : 10 String of plaintext: ysqslja
11 : 11 String of plaintext: xpprkiz
12 : 12 String of plaintext: wqoqjhy
13 : 13 String of plaintext: vnpigix
14 : 14 String of plaintext: uomohfw
15 : 15 String of plaintext: tnlngcv
16 : 16 String of plaintext: smkmfdu
17 : 17 String of plaintext: rljlect
18 : 18 String of plaintext: qkikdbz
19 : 19 String of plaintext: pjhjar
20 : 20 String of plaintext: oigibzq
21 : 21 String of plaintext: nhfhayp
22 : 22 String of plaintext: mgegexo
23 : 23 String of plaintext: lfdfywn
24 : 24 String of plaintext: kecexvm
25 : 25 String of plaintext: jdbdwul

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Process exited after 3.98 seconds with return value 0
Press any key to continue . . .
```