

CNS LAB

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Assignment 2

Aim - Given a Cipher text , encrypted caesar using , Using Crypt analysis find the plain text

Caesar Cipher

It is a substitution cipher, i.e., each letter of a given text is replaced by a letter with a fixed number of positions down the alphabet

We will decrypt using all the possible key , and find the most relative plain text

Code:

```
import enchant
d = enchant.Dict("en_US")
#encrypted message
message = 'RKPRYYRAG'
LETTERS = 'ABCDEFGHIJKLMNOPQRSTUVWXYZ'
actualText=""
actualKey=0
no_of_words=len(message.split())
words=[]
for key in range(len(LETTERS)):
    translated = ""
    word=""
    for symbol in message:
        if symbol in LETTERS:
            num = LETTERS.find(symbol)
            num = num - key
            if num < 0:
                num = num + len(LETTERS)
            translated = translated + LETTERS[num]
        word=word+LETTERS[num]
    else:
```

```

    if d.check(word):
        words.append(word)
    else:
        words.clear()
    word=""
if d.check(word):
    words.append(word)
if len(words)==no_of_words:
    actualText=translated
    actualKey=key
    words.clear()
print('Plain text with %s: %s' % (key, translated))
print('Actual plain text is %s with key:%s' % (actualKey,actualText))

```

TestCases:

```

PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  JUPYTER
[Running] python -u "d:\4th_year\CNS\Ass2.py"
Plain text with 0: RKPRYYRAG
Plain text with 1: QJOQXXQZF
Plain text with 2: PINPWMPYE
Plain text with 3: OHMOVVOXD
Plain text with 4: NGLNUUNWC
Plain text with 5: MFKMTTMVB
Plain text with 6: LEJLSSLUA
Plain text with 7: KDIKRRKTZ
Plain text with 8: JCHJQQJSY
Plain text with 9: IBGIPPIRX
Plain text with 10: HAFHOHQW
Plain text with 11: GZEGNNGPV
Plain text with 12: FYDFMMFOU
Plain text with 13: EXCELLENT
Plain text with 14: DWBDKKDMS
Plain text with 15: CVACJJCLR
Plain text with 16: BUZBIIBKQ
Plain text with 17: ATYAHHAJP
Plain text with 18: ZSXZGGZIO
Plain text with 19: YRWYFFYHN
Plain text with 20: XQVXEEXGM
Plain text with 21: WPUWDDWFL
Plain text with 22: VOTVCCVEK
Plain text with 23: UNSUBBUDJ
Plain text with 24: TMRTAATCI
Plain text with 25: SLQSZZSBH
Actual plain text is 13 with key:EXCELLENT

[Done] exited with code=0 in 6.43 seconds

```