



Cryptography

Section 6

Transposition Cipher

A simple example for a transposition cipher is columnar transposition cipher where each character in the plain text is written horizontally with specified alphabet width. The cipher is written vertically, which creates an entirely different cipher text.

Example

- Consider the plain text “**hello world**”, the **key = 4**, and let us apply the simple columnar transposition technique as shown below:

h	e	l	l
o		w	o
r	l	d	

The plain text characters are placed horizontally and the cipher text is created with vertical format as : **hore llwdlo**. Now, the receiver has to use the same table to decrypt the cipher text to plain text.

Encryption using Transposition Cipher

```
plaintext = "hello world"
key = 4
ciphertext = [''] * key

for column in range(key):
    pointer = column

    while pointer < len(plaintext):
        ciphertext[column] += plaintext[pointer]
        pointer += key

print("The Cipher Text is: ", ''.join(ciphertext))
```

Task

By using transposition cipher, decrypt the cipher text “**hore llwdlo**” using **key = 4**



Thank
you

