

# CSE222 – HW5

ELIFNUR KABALCI

1801042617

## OUTPUTS

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*** Vigenere Cipher ***
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[A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z]
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A | [A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z]  
B | [B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A]  
C | [C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B]  
D | [D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C]  
E | [E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D]  
F | [F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E]  
G | [G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F]  
H | [H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G]  
I | [I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H]  
J | [J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I]  
K | [K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J]  
L | [L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K]  
M | [M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L]  
N | [N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M]  
O | [O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N]  
P | [P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O]  
Q | [Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P]  
R | [R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q]  
S | [S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R]  
T | [T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S]  
U | [U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T]  
V | [V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U]  
W | [W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V]  
X | [X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W]  
Y | [Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X]  
Z | [Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y]
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Text: cse
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Key: gtu
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Preprocessed Text: CSE
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Preprocessed Key: GTU
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ENCRYPTION
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Plaintext: CSE
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Keystream: GTU
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Ciphertext: ILY
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DECRYPTION
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Ciphertext: CSE
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Keystream: GTU
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Plaintext: WZK
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A | [A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z]
B | [B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A]
C | [C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B]
D | [D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C]
E | [E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D]
F | [F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E]
G | [G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F]
H | [H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G]
I | [I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H]
J | [J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I]
K | [K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J]
L | [L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K]
M | [M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L]
N | [N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M]
O | [O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N]
P | [P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O]
Q | [Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P]
R | [R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q]
S | [S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R]
T | [T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S]
U | [U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T]
V | [V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U]
W | [W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V]
X | [X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W]
Y | [Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X]
Z | [Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y]

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Text: GTU

Key: CSE222-DATA

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Preprocessed Text: GTU

Preprocessed Key: CSEDATA

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ENCRYPTION

Plaintext: GTU

Keystream: CSE

Ciphertext: ILY

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DECRYPTION

Ciphertext: GTU

Keystream: CSE

Plaintext: EBQ

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\*\*\* Vigenere Cipher \*\*\*

[A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z]

A | [A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z]  
B | [B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A]  
C | [C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B]  
D | [D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C]  
E | [E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D]  
F | [F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E]  
G | [G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F]  
H | [H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G]  
I | [I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H]  
J | [J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I]  
K | [K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J]  
L | [L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K]  
M | [M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L]  
N | [N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M]  
O | [O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N]  
P | [P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O]  
Q | [Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P]  
R | [R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q]  
S | [S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R]  
T | [T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S]  
U | [U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T]  
V | [V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U]  
W | [W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V]  
X | [X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W]  
Y | [Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X]  
Z | [Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y]

Text: data structures

Key: java...

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Preprocessed Text: DATASTRUCTURES

Preprocessed Key: JAVA

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ENCRYPTION

Plaintext: DATASTRUCTURES

Keystream: JAVAJAVAJAVAJA

Ciphertext: MAOABTMULTPRNS

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DECRYPTION

Ciphertext: DATASTRUCTURES

Keystream: JAVAJAVAJAVAJA

Plaintext: UAYAJTWUTTZRVS

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add500112 (2017-08-26) test1
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*** Vigenere Cipher ***
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[A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z]
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A | [A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z]
B | [B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A]
C | [C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B]
D | [D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C]
E | [E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D]
F | [F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E]
G | [G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F]
H | [H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G]
I | [I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H]
J | [J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I]
K | [K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J]
L | [L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K]
M | [M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L]
N | [N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M]
O | [O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N]
P | [P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O]
Q | [Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P]
R | [R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q]
S | [S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R]
T | [T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S]
U | [U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T]
V | [V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U]
W | [W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V]
X | [X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W]
Y | [Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X]
Z | [Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y]
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Text: alg1or,ith m
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Key: data3 456
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Preprocessed Text: ALGORITHM
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Preprocessed Key: DATA
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ENCRYPTION
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Plaintext: ALGORITHM
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Keystream: DATADATAD
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Ciphertext: DLZUIMHP
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DECRYPTION
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Ciphertext: ALGORITHM
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Keystream: DATADATAD
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Plaintext: XLNOOIAHJ
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\*\*\* Vigenere Cipher \*\*\*

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      [A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z]
-----
A | [A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z]
B | [B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A]
C | [C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B]
D | [D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C]
E | [E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D]
F | [F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E]
G | [G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F]
H | [H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G]
I | [I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H]
J | [J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I]
K | [K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J]
L | [L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K]
M | [M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L]
N | [N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M]
O | [O, P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N]
P | [P, Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O]
Q | [Q, R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P]
R | [R, S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q]
S | [S, T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R]
T | [T, U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S]
U | [U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T]
V | [V, W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U]
W | [W, X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V]
X | [X, Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W]
Y | [Y, Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X]
Z | [Z, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y]
```

Text: algorithm

Key: 2 3 4 ! , ü

Given input is not proper. Please try again.

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