import pyperclip

def main():

    myMessage = input("Enter your message: ")

    myKey = 3  # Key defines the number of columns

    # Encrypt the message

    ciphertext = encryptMessage(myKey, myMessage)

    # Decrypt the message

    plaintext = decryptMessage(myKey, ciphertext)

    print("Ciphertext: " + ciphertext + '|')

    print("Decrypted text: " + plaintext + '|')

    pyperclip.copy(ciphertext)

def encryptMessage(key, message):

    # Create a list of empty strings for each column

    ciphertext = [''] \* key

    # Place characters into columns

    for col in range(key):

        position = col

        while position < len(message):

            ciphertext[col] += message[position]

            position += key

    return ''.join(ciphertext)

def decryptMessage(key, message):

    numOfColumns = key

    numOfRows = -(-len(message) // key)  # Ceiling division

    numOfShadedBoxes = (numOfColumns \* numOfRows) - len(message)

    plaintext = [''] \* numOfRows

    col = 0

    row = 0

    for symbol in message:

        plaintext[row] += symbol

        row += 1

        if (row == numOfRows) or (row == numOfRows - 1 and col >= numOfColumns - numOfShadedBoxes):

            row = 0

            col += 1

    # Now rebuild the message row by row

    result = ''

    for i in range(numOfRows):

        for j in range(numOfColumns):

            if i < len(plaintext) and j < len(plaintext[i]):

                result += plaintext[i][j]

    return result

main()

PS C:\Users\Admin\Desktop\3171\_IS> & C:/Users/Admin/AppData/Local/Programs/Python/Python313/python.exe c:/Users/Admin/Desktop/3171\_IS/is2\_3132.py Enter your message: I am going to college Ciphertext: Imogooe i lgagntcle| Decrypted text: I am going to college|