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In [1]: import random

alphabet = 'arzhino0123456789/'
letter_to_index = dict(zip(alphabet , range(len(alphabet))))
index_to_letter = dict(zip(range(len(alphabet)) , alphabet))

In [2]: preson = {
    'name': 'zhino',
    'bro1_name': 'zhian',
    'bro2_name': 'arzhin',
    'birthday': '78/5/13',
    'bro1_birth': '86/9/14',
    'bro2_birth': '92/11/30',
}

In [3]: def generate_key(num):
    key = ''
    for num in range(num):
        key += random.choice('arzhino0123456789/')

    return key

In [4]: def encrypt(message , key):
    encrypt_message = ''
    split_message = [message[i : i + len(key)] for i in range(0 , len(message) , len(key))]

    for each_element in split_message:
        i = 0;

        for letter in each_element:
            number = (letter_to_index[letter] + letter_to_index[key[i]]) % len(alphabet)
            encrypt_message += index_to_letter[number]
            i += 1

    return encrypt_message

In [5]: def decrypt(cipher_message , key):
    split_message = [cipher_message[i : i + len(key)] for i in range(0 , len(cipher_message) , len(key))]
    decrypt_message = ''

    for each_element in split_message:
        i = 0;

        for letter in each_element:
            number = (letter_to_index[letter] - letter_to_index[key[i]]) % len(alphabet)
            decrypt_message += index_to_letter[number]
            i += 1

    return decrypt_message

In [6]: plain_text = preson['name'] + preson['bro1_name'] + preson['bro2_name'] + preson['birthday'] + preson['bro1_birth'] + preson['br
o2_birth']
key = generate_key(4)
encrypt_message = encrypt(plain_text , key)
decrypt_message = decrypt(encrypt_message , key)

print(f"key: {key} , encript_message: {encrypt_message} , decripted_message:{decrypt_message}")

key: 8882 , encript_message: /ar7h/a68983/ar7457h7n0o3761n16a7nn10i , decripted_message:zhinozhianarzhin78/5/1386/9/1492/11/30

In [7]: plain_text = preson['name'] + preson['bro1_name'] + preson['bro2_name'] + preson['birthday'] + preson['bro1_birth'] + preson['br
o2_birth']
key = generate_key(4)
encrypt_message = encrypt(plain_text , key)
decrypt_message = decrypt(encrypt_message , key)

print(f"key: {key} , encript_message: {encrypt_message} , decripted_message:{decrypt_message}")

key: 4o22 , encript_message: 6267/156402362670h1h37roon01r/0a37/1h6 , decripted_message:zhinozhianarzhin78/5/1386/9/1492/11/30

In [8]: plain_text = preson['name'] + preson['bro1_name'] + preson['bro2_name'] + preson['birthday'] + preson['bro1_birth'] + preson['br
o2_birth']
key = generate_key(4)
encrypt_message = encrypt(plain_text , key)
decrypt_message = decrypt(encrypt_message , key)

print(f"key: {key} , encript_message: {encrypt_message} , decripted_message:{decrypt_message}")

key: 6n78 , encript_message: 81azr0/r6o7981az2z6256o51i57h95o56i7n5 , decripted_message:zhinozhianarzhin78/5/1386/9/1492/11/30

In [9]: plain_text = preson['name'] + preson['bro1_name'] + preson['bro2_name'] + preson['birthday'] + preson['bro1_birth'] + preson['br
o2_birth']
key = generate_key(4)
encrypt_message = encrypt(plain_text , key)
decrypt_message = decrypt(encrypt_message , key)

print(f"key: {key} , encript_message: {encrypt_message} , decripted_message:{decrypt_message}")

key: ir6/ , encript_message: oi/i3h9hiz6aoi/ia954h2n7/a495541h2h971 , decripted_message:zhinozhianarzhin78/5/1386/9/1492/11/30

In [10]: plain_text = preson['name'] + preson['bro1_name'] + preson['bro2_name'] + preson['birthday'] + preson['bro1_birth'] + preson['br
o2_birth']
key = generate_key(4)
encrypt_message = encrypt(plain_text , key)
decrypt_message = decrypt(encrypt_message , key)

print(f"key: {key} , encript_message: {encrypt_message} , decripted_message:{decrypt_message}")

key: 2/in , encript_message: 4z138r022aio4z13n7h/107zi9zi/3z7105iro , decripted_message:zhinozhianarzhin78/5/1386/9/1492/11/30

In [11]: plain_text = preson['name'] + preson['bro1_name'] + preson['bro2_name'] + preson['birthday'] + preson['bro1_birth'] + preson['br
o2_birth']
key = generate_key(4)
encrypt_message = encrypt(plain_text , key)
decrypt_message = decrypt(encrypt_message , key)

print(f"key: {key} , encript_message: {encrypt_message} , decripted_message:{decrypt_message}")

key: 20o2 , encript_message: 4337822621o34337ninh189oioi1/aia1871r7 , decripted_message:zhinozhianarzhin78/5/1386/9/1492/11/30

In [12]: plain_text = preson['name'] + preson['bro1_name'] + preson['bro2_name'] + preson['birthday'] + preson['bro1_birth'] + preson['br
o2_birth']
key = generate_key(4)
encrypt_message = encrypt(plain_text , key)
decrypt_message = decrypt(encrypt_message , key)

print(f"key: {key} , encript_message: {encrypt_message} , decripted_message:{decrypt_message}")

key: 58zo , encript_message: 7ao4a/n359z07ao415ra4n5h07anz1a84n3nii , decripted_message:zhinozhianarzhin78/5/1386/9/1492/11/30

In [13]: plain_text = preson['name'] + preson['bro1_name'] + preson['bro2_name'] + preson['birthday'] + preson['bro1_birth'] + preson['br
o2_birth']
key = generate_key(4)
encrypt_message = encrypt(plain_text , key)
decrypt_message = decrypt(encrypt_message , key)

print(f"key: {key} , encript_message: {encrypt_message} , decripted_message:{decrypt_message}")

key: 2o0n , encript_message: 42438132200o4243nho/17/zinni//n7178ir6 , decripted_message:zhinozhianarzhin78/5/1386/9/1492/11/30

In [14]: plain_text = preson['name'] + preson['bro1_name'] + preson['bro2_name'] + preson['birthday'] + preson['bro1_birth'] + preson['br
o2_birth']
key = generate_key(4)
encrypt_message = encrypt(plain_text , key)
decrypt_message = decrypt(encrypt_message , key)

print(f"key: {key} , encript_message: {encrypt_message} , decripted_message:{decrypt_message}")

key: 6zn6 , encript_message: 8n2ari1/6hn78n2a2/i053831rh5h6hi5365n2 , decripted_message:zhinozhianarzhin78/5/1386/9/1492/11/30

In [15]: plain_text = preson['name'] + preson['bro1_name'] + preson['bro2_name'] + preson['birthday'] + preson['bro1_birth'] + preson['br
o2_birth']
key = generate_key(4)
encrypt_message = encrypt(plain_text , key)
decrypt_message = decrypt(encrypt_message , key)

print(f"key: {key} , encript_message: {encrypt_message} , decripted_message:{decrypt_message}")

key: 4422 , encript_message: 6767/65645236767011h3rroo301ri0a3r/1ha , decripted_message:zhinozhianarzhin78/5/1386/9/1492/11/30

In [16]: plain_text = preson['name'] + preson['bro1_name'] + preson['bro2_name'] + preson['birthday'] + preson['bro1_birth'] + preson['br
o2_birth']
key = generate_key(4)
encrypt_message = encrypt(plain_text , key)
decrypt_message = decrypt(encrypt_message , key)

print(f"key: {key} , encript_message: {encrypt_message} , decripted_message:{decrypt_message}")

key: irrh , encript_message: oin13hi0izrioin1a9a8h24a/a/z55/5h22z71 , decripted_message:zhinozhianarzhin78/5/1386/9/1492/11/30

In [ ]:
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