

第三次作业

第一题

```
class Caesar_cipher:

    def __init__(self, string: str, mode: int) -> None:
        if mode == 1:
            self.original = string # 加密
        elif mode == 0:
            self.encrypted = string # 解密

    def encipher(self, k: int) -> str:
        self.encrypted = ''.join([(chr((ord(i)+k)-((ord(i)+k-90) > 0)*26)) if (65 <= ord(i) <= 90) else (chr((ord(i)+k)-((ord(i)+k-122) > 0)*26)) if (97 <= ord(i) <= 122) else i) for i in self.original])
        return self.encrypted

    def decipher(self, k: int) -> str:
        self.original = ''.join([(chr((ord(i)-k)+((ord(i)-k-65) < 0)*26)) if (65 <= ord(i) <= 90) else (chr((ord(i)-k)+((ord(i)-k-97) < 0)*26)) if (97 <= ord(i) <= 122) else i) for i in self.encrypted])
        return self.original

ori = input("请输入原文: ")
k = int(input("请输入K: "))
cc = Caesar_cipher(ori, 1)
print("加密后的字符串是:", cc.encipher(k))
print("解密后的字符串是:", cc.decipher(k))
```

```
请输入原文: Lorem ipsum dolor sit amet, consectetur adipisicing elit,
请输入K: 20
加密后的字符串是: Filyg cjmog xifil mcu ugyn, wihmywnynol uxcjcmwcha yfcu,
解密后的字符串是: Lorem ipsum dolor sit amet, consectetur adipisicing elit,
```