

МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ  
НАЦІОНАЛЬНИЙ ТЕХНІЧНИЙ УНІВЕРСИТЕТ УКРАЇНИ  
“Київський політехнічний інститут ім. Ігоря Сікорського”  
ФАКУЛЬТЕТ Інформатики та Обчислювальної Техніки  
КАФЕДРА Інформаційних систем та технологій

**Звіт до лабораторної роботи №1**  
**з предмету:** Обробка та Аналіз текстових даних на мові  
Python

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**Тема:** Робота з текстовими даними в Python

**Мета:** Ознайомитись з представленням тексту Python та робота з текстом за допомогою регулярних виразів.

**Варіант:** 11

**Завдання:** Знайти всі номери телефонів та замінити будь-яким символом всі цифри, крім перших двох. Файл text3.

### Код програми

```
import re

file_text = ""

with open("text3.txt", "r", encoding="utf-8") as file:
    file_text = file.read()

def task_1():
    print("Task 1")
    print("-----")
    text_splice = file_text[0:20]
    print("Splice: " + text_splice)
    print("Splice length: " + str(len(text_splice)))
    print("Number of a's in text: " + str(text_splice.count('a')))
    find_res = text_splice.find('q')
    print("Position of 'q' in text: " + str(find_res if find_res != -1 else "Not found"))
    print("Upper case: " + text_splice.upper())
    print("Replaced 'Slowly' with 'Fastly': " + text_splice.replace("Slowly", "Fastly"))
    print("Split string by symbol ' ': ", end='')
    print(text_splice.split(' '))
    print("Join previously splitted strings: " + "".join(text_splice.split(' ')))

def task_2():
    global file_text
    print("-----")
    print("Task 2")
    print("Variant 11")
    print("-----")
    print("Whole file content:")
    print(file_text)
    print("Preparing regex...")
    print("-----")
    n = re.compile(r'(?<=(?<=^)|(?<=[^\w(])\+)?\d{2,3}\)(?:\-\d{1,3}){2,3}(?<=)|(?<=[^\w-])')
    print("Blurring phone numbers...")
    start = 0
    end = len(file_text)

    while start != end:
        res = n.search(file_text, start, end)

        if res == None:
            break

        startPos = res.span()[0]
        endPos = res.span()[1]
```

```

numCount = 0

while startPos != endPos:
    if file_text[startPos].isnumeric():
        if numCount == 2:
            file_text = file_text[:startPos] + 'X' +
file_text[startPos+1:]
        else:
            numCount = numCount + 1
            startPos = startPos + 1

start = endPos

print("Done.")
print("-----")
print(file_text)

if __name__ == "__main__":
    task_1()
    task_2()

```

## Результат роботи програми

### Task 1

```

-----
Splice: Slowly and solemnly
Splice length: 20
Number of a's in text: 1
Position of 'q' in text: Not found
Upper case: SLOWLY AND SOLEMNLY
Replaced 'Slowly' with 'Fastly': Fastly and solemnly
Split string by symbol ' ': ['Slowly', 'and', 'solemnly', '']
Join previously splitted strings: Slowlyandsolemnly
-----

```

### Task 2

#### Variant 11

```

-----
Whole file content:
Slowly and solemnly he was borne into Briony Lodge 145a and laid out in the
principal room, while I (094)-44-33 still observed the proceedings from my post
by the window 12/15/1892. The lamps had been lit, but the blinds had not been
drawn, so that I could see Holmes sh_holmes221@mail.uk as he lay upon the couch.
I do not
know whether he was seized with compunction at that moment for the part
he was playing, but I know that I never felt more heartily ashamed of
myself in my life 34-34-32 than when I saw the beautiful creature against whom
I wston23@mymail.com was conspiring, or the grace and kindness with which she
waited
upon the injured man. And yet it would be the blackest treachery to 1895-11-17
Holmes to draw back now from the part which he had intrusted to me Avenue 123.

```

I hardened my heart Wtason Street 45b, and took the smoke-rocket from under my ulster.

After all, 344-21-01 I thought, we are not injuring her. We are but preventing her from injuring another adlerrr@mail.com.

Preparing regex...

-----

Blurring phone numbers...

Done.

-----

Slowly and solemnly he was borne into Briony Lodge 145a and laid out in the principal room, while I (09X)-XX-XX still observed the proceedings from my post by the window 12/15/1892. The lamps had been lit, but the blinds had not been drawn, so that I could see Holmes sh\_holmes221@mail.uk as he lay upon the couch. I do not

know whether he was seized with compunction at that moment for the part he was playing, but I know that I never felt more heartily ashamed of myself in my life 34-XX-XX than when I saw the beautiful creature against whom I wston23@mymail.com was conspiring, or the grace and kindness with which she waited

upon the injured man. And yet it would be the blackest treachery to 1895-11-17 Holmes to draw back now from the part which he had intrusted to me Avenue 123. I hardened my heart Wtason Street 45b, and took the smoke-rocket from under my ulster.

After all, 34X-XX-XX I thought, we are not injuring her. We are but preventing her from injuring another adlerrr@mail.com.