

Додаток 1
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Звіт
з лабораторної роботи № 1 з дисципліни «Основи програмування»
«Робота з текстовими файлами»
Варіант 12

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Лабораторна робота №1

Тема: Текстові файли

Постановка задачі

Створити текстовий файл. Визначити в кожному його рядку слова, які починаються на задану літеру. Зберегти знайдені слова у новому текстовому файлі. Як роздільники між словами застосовувати пробіли

Код:

Файл - main.py

```
import utils

def main():
    input_text = utils.get_text()

    filename = input("Enter the file name: ")
    input_mode = input("Would you like to append the text or replace the old
one? Enter 'a' for appending or 'w' for replacing: ")
    utils.fill_file(filename, input_mode.strip(), input_text)
    print("The file has been modified! Open {}".format(filename))

    print('-----')
    print('Input text: {}'.format(input_text))
    print('-----')

    searching_char = input("Enter the searching character: ")
    case_sensitive_result = input("Should the filter be case sensitive? Enter
'y' for yes or 'n' for no: ")
    is_case_sensitive = True if case_sensitive_result.strip() == 'y' else False
    new_filename = input("Enter the file name where the result will be stored:
")
    output_mode = input("Would you like to append the text or replace the old
one? Enter 'a' for appending or 'w' for replacing: ")
    filtered_words = utils.filter_words(input_text, searching_char.strip(),
is_case_sensitive)
    utils.fill_file(new_filename, output_mode, filtered_words)
```

```

print("The file has been modified! Open {}".format(new_filename))
print('-----')
print('Output text: {}'.format(filtered_words))
print('-----')

main()

```

Файл: utils.py

```

def get_text():
    lines = []
    terminating_key = input("Enter the key that will finish the input: ")
    print("Enter the text. To finish entering press '{}' and
Enter".format(terminating_key))
    while True:
        line = input()
        if line.find(terminating_key) != -1:
            lines.append(line[0:-2])
            break
        else:
            lines.append(line)
    return "\n".join(lines)

def fill_file(filename, mode, content):
    file = open(filename, mode)
    file.write(content)
    file.close()
    return file

def filter_words(text, filtering_char, is_case_sensitive):
    filtered = []
    words = text.split()
    for word in words:
        current_word = word
        if not is_case_sensitive:
            current_word = word.lower()
            filtering_char = filtering_char.lower()

        if current_word.startswith(filtering_char):
            filtered.append(word)
    return " ".join(filtered) + " "

```

Консоль:

```
/Users/Kostia/Documents/Programming/kpi/programming-basics/Python/bachelor/year-1/semester-2/lab-1/venv/bin/python
Enter the key that will finish the input: &&
Enter the text. To finish entering press '&&' and Enter
hello world
how are you
see you at home&&
Enter the file name: input.txt
Would you like to append the text or replace the old one? Enter 'a' for appending or 'w' for replacing: w
The file has been modified! Open input.txt
-----
Input text: hello world
how are you
see you at home

-----

Enter the searching character: h
Should the filter be case sensitive? Enter 'y' for yes or 'n' for no: y
Enter the file name where the result will be stored: output.txt
Would you like to append the text or replace the old one? Enter 'a' for appending or 'w' for replacing: w
The file has been modified! Open output.txt
-----
Output text: hello how home
-----

Process finished with exit code 0
|
```

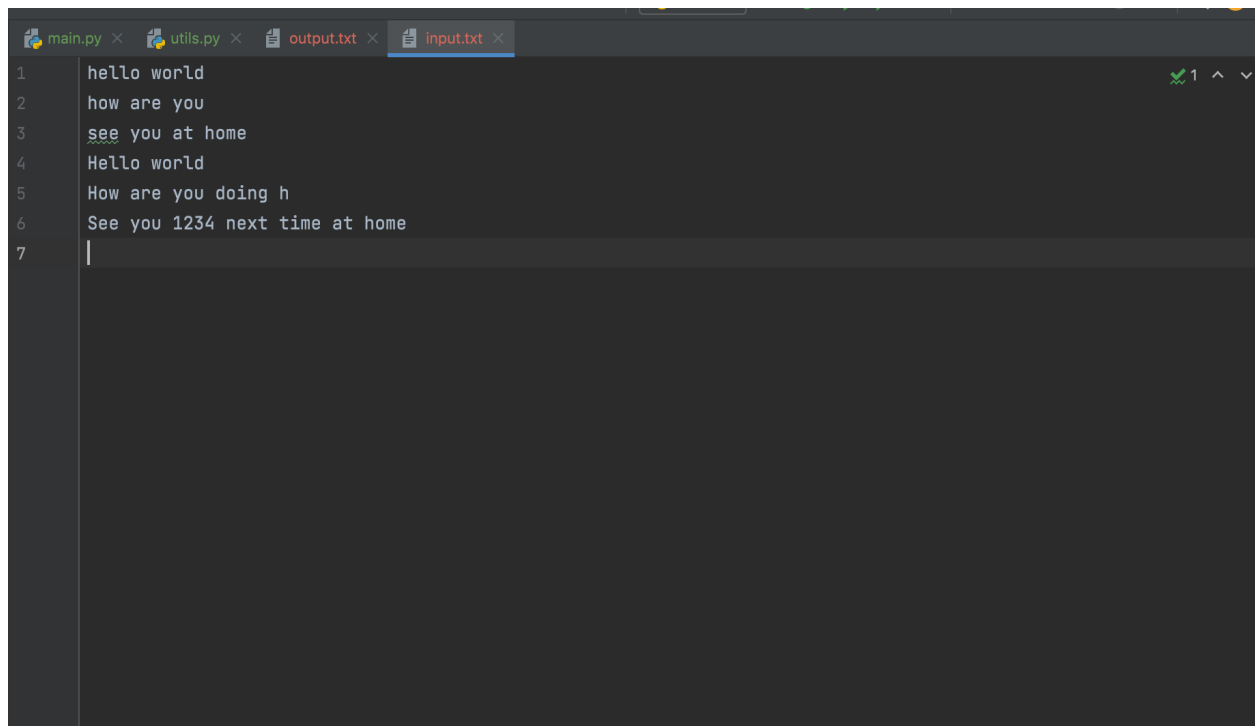
```
Run: main x
/Users/Kostia/Documents/Programming/kpi/programming-basics/Python/bachelor/year-1/semester-2/lab-1/venv/bin/python /Users/Kostia/Documents/Programmi
Enter the key that will finish the input: &&
Enter the text. To finish entering press '&&' and Enter
hello world
how are you doing h
see you 1234 next time at home
&&
Enter the file name: input.txt
Would you like to append the text or replace the old one? Enter 'a' for appending or 'w' for replacing: w
The file has been modified! Open input.txt
-----
Input text: Hello world
How are you doing h
See you 1234 next time at home

-----

Enter the searching character: h
Should the filter be case sensitive? Enter 'y' for yes or 'n' for no: y
Enter the file name where the result will be stored: output.txt
Would you like to append the text or replace the old one? Enter 'a' for appending or 'w' for replacing: w
The file has been modified! Open output.txt
-----
Output text: h home
-----

Process finished with exit code 0
```

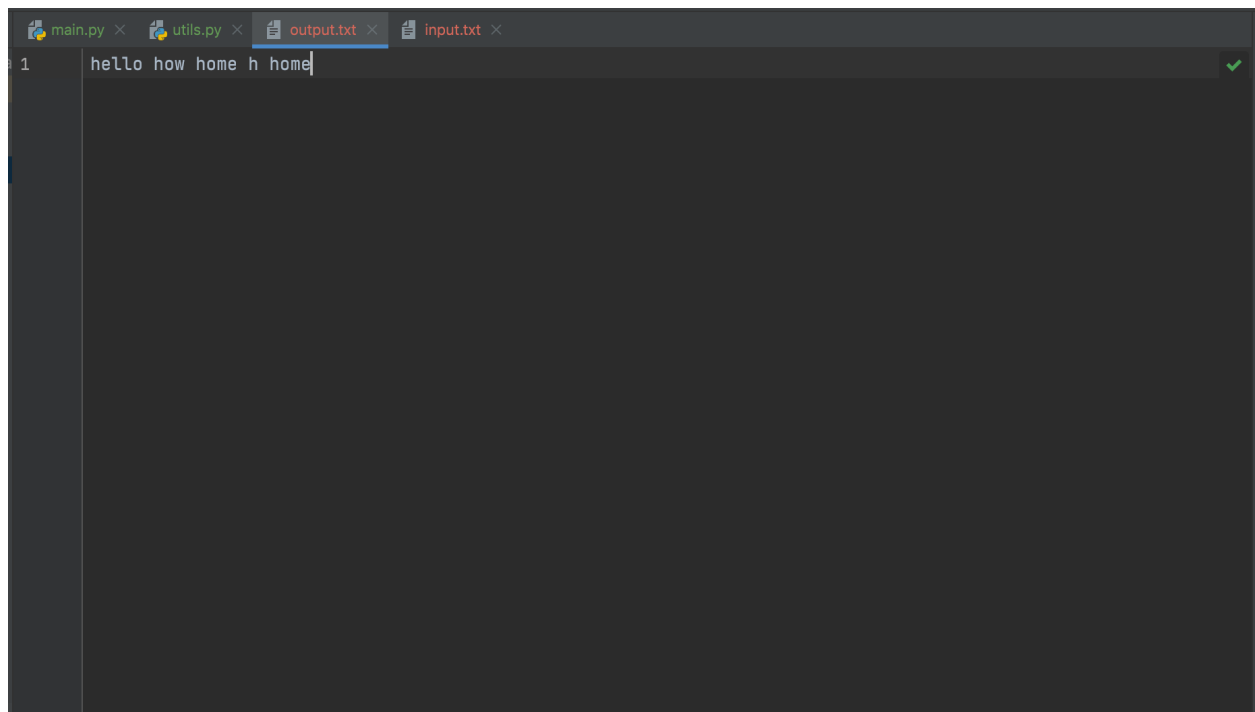
Файл: input.txt



A screenshot of a code editor window with four tabs: main.py, utils.py, output.txt, and input.txt. The input.txt tab is active and shows a list of six lines of text. A green checkmark and the number '1' are visible in the top right corner of the editor area.

```
1 hello world
2 how are you
3 see you at home
4 Hello world
5 How are you doing h
6 See you 1234 next time at home
7 |
```

Файл: output.txt



A screenshot of the same code editor window, but now the output.txt tab is active. It shows a single line of text: 'hello how home h home'. A green checkmark is visible in the top right corner of the editor area.

```
1 hello how home h home
```