

**МИНИСТЕРСТВО НАУКИ И ВЫСШЕГО ОБРАЗОВАНИЯ  
РОССИЙСКОЙ ФЕДЕРАЦИИ**

**Федеральное государственное автономное  
образовательное учреждение высшего образования  
«Северо-Кавказский федеральный университет»**

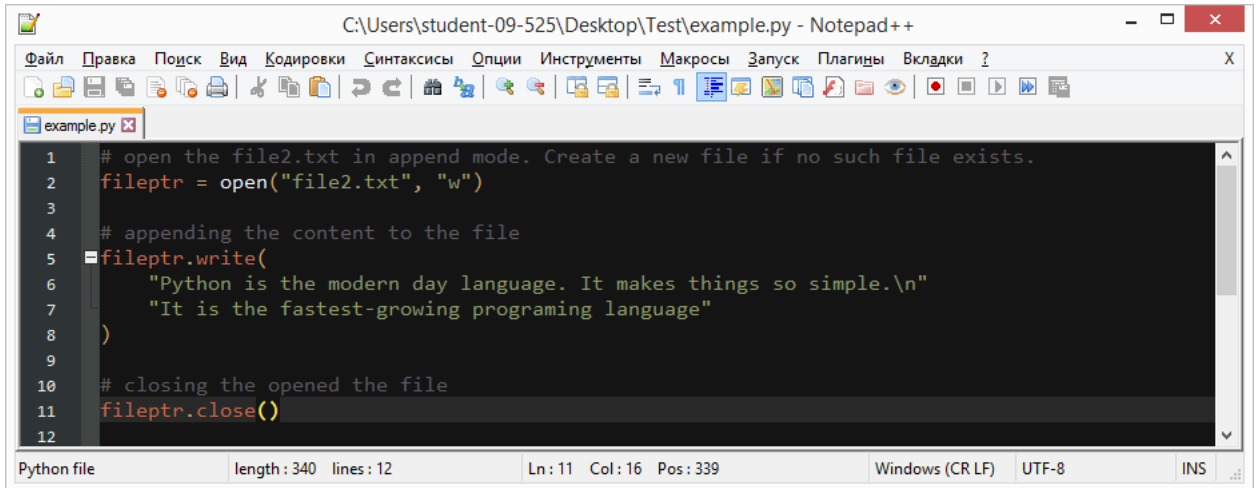
**Отчет по лабораторной работе №15  
Работа с файлами в языке Python**

**по дисциплине «Основы программной инженерии»**

Выполнил студент группы ПИЖ-б-о-20-1  
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Подпись студента \_\_\_\_\_  
Работа защищена « » \_\_\_\_\_ 2022г.  
Проверил Воронкин Р.А. \_\_\_\_\_  
(подпись)

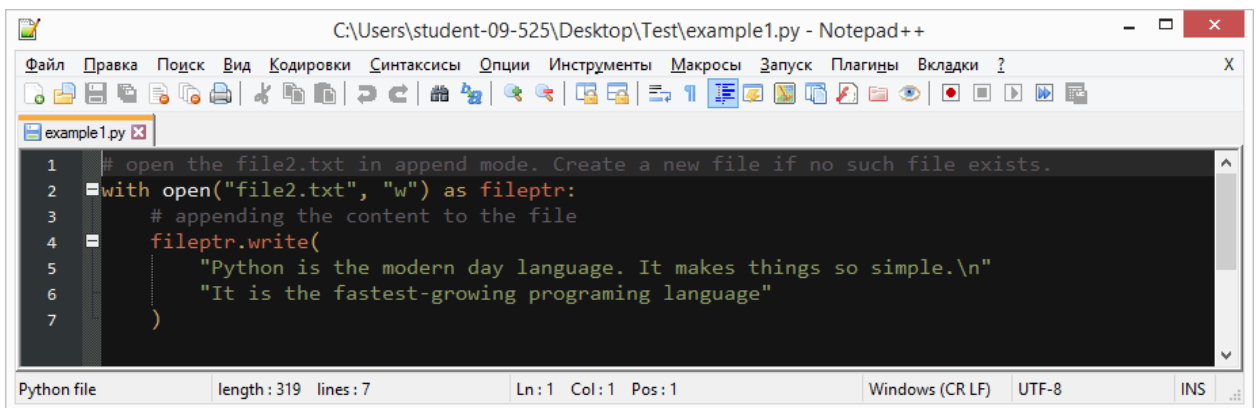
Ставрополь 2022

## Пример 1.



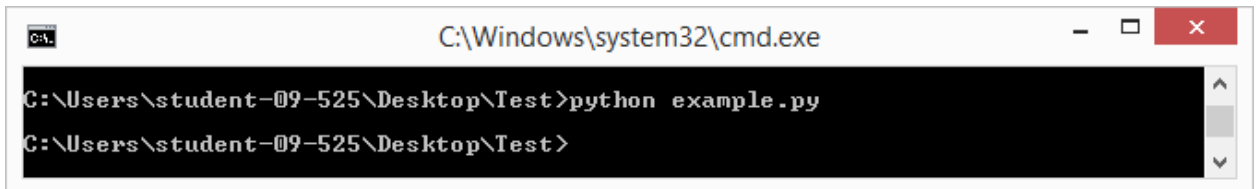
A screenshot of the Notepad++ application window. The title bar reads "C:\Users\student-09-525\Desktop\Test\example.py - Notepad++". The menu bar includes "Файл", "Правка", "Поиск", "Вид", "Кодировки", "Синтаксисы", "Опции", "Инструменты", "Макросы", "Запуск", "Плагины", and "Вкладки". The toolbar contains icons for file operations and editing. The editor shows a Python script in "example.py" with 12 lines. The status bar at the bottom indicates "Python file", "length: 340 lines: 12", "Ln: 11 Col: 16 Pos: 339", "Windows (CR LF)", "UTF-8", and "INS".

```
1 # open the file2.txt in append mode. Create a new file if no such file exists.
2 fileptr = open("file2.txt", "w")
3
4 # appending the content to the file
5 fileptr.write(
6     "Python is the modern day language. It makes things so simple.\n"
7     "It is the fastest-growing programming language"
8 )
9
10 # closing the opened the file
11 fileptr.close()
12
```



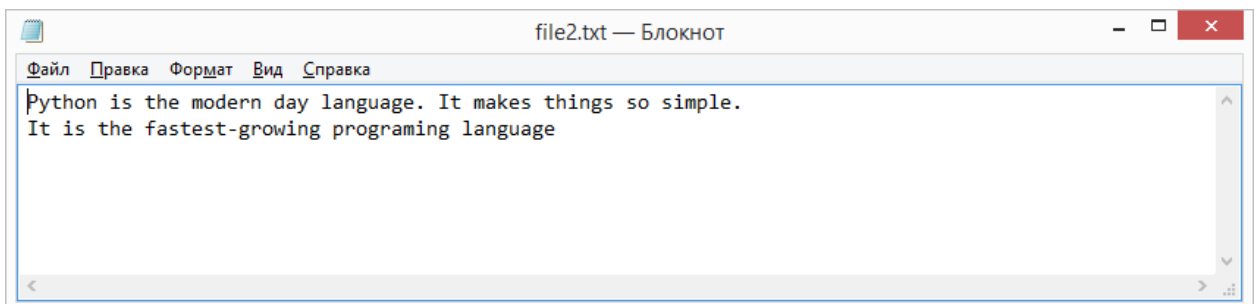
A screenshot of the Notepad++ application window. The title bar reads "C:\Users\student-09-525\Desktop\Test\example1.py - Notepad++". The menu bar and toolbar are identical to the previous window. The editor shows a Python script in "example1.py" with 7 lines. The status bar at the bottom indicates "Python file", "length: 319 lines: 7", "Ln: 1 Col: 1 Pos: 1", "Windows (CR LF)", "UTF-8", and "INS".

```
1 # open the file2.txt in append mode. Create a new file if no such file exists.
2 with open("file2.txt", "w") as fileptr:
3     # appending the content to the file
4     fileptr.write(
5         "Python is the modern day language. It makes things so simple.\n"
6         "It is the fastest-growing programming language"
7     )
```



A screenshot of the Windows Command Prompt window. The title bar reads "C:\Windows\system32\cmd.exe". The command prompt shows the current directory as "C:\Users\student-09-525\Desktop\Test" and the command "python example.py" has been executed. The status bar at the bottom indicates "C:\Users\student-09-525\Desktop\Test".

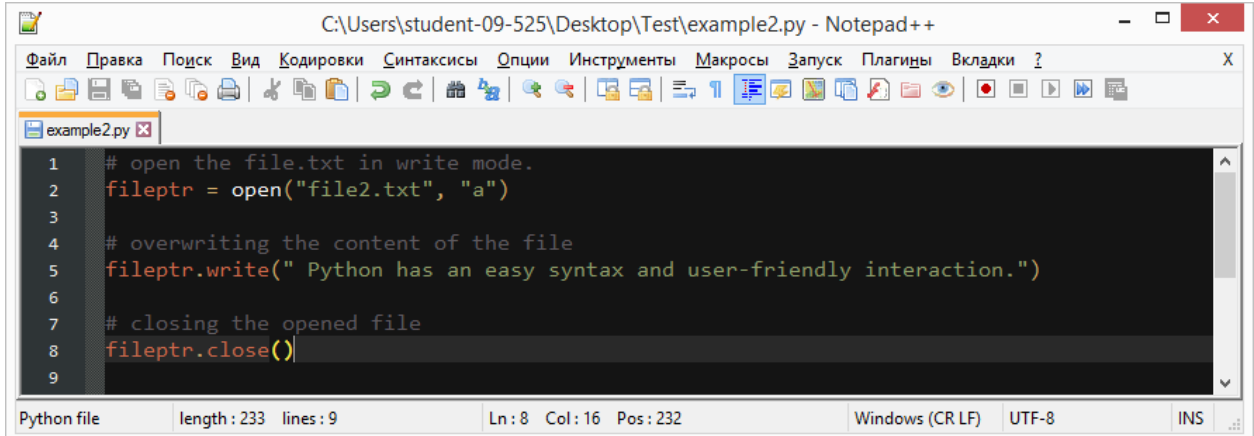
```
C:\Users\student-09-525\Desktop\Test>python example.py
C:\Users\student-09-525\Desktop\Test>
```



A screenshot of the Notepad application window. The title bar reads "file2.txt — Блокнот". The menu bar includes "Файл", "Правка", "Формат", "Вид", and "Справка". The editor shows the content of "file2.txt" which was written by the Python script. The status bar at the bottom indicates "file2.txt".

```
Python is the modern day language. It makes things so simple.
It is the fastest-growing programming language
```

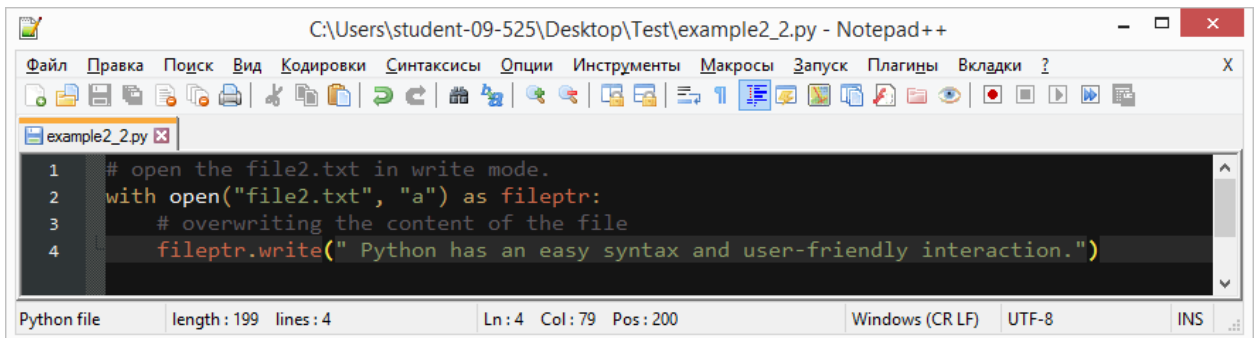
## Пример 2.



A screenshot of the Notepad++ application window. The title bar reads "C:\Users\student-09-525\Desktop\Test\example2.py - Notepad++". The menu bar includes "Файл", "Правка", "Поиск", "Вид", "Кодировки", "Синтаксисы", "Опции", "Инструменты", "Макросы", "Запуск", "Плагины", and "Вкладки?". The toolbar contains various icons for file operations and editing. The editor area shows a Python script named "example2.py" with the following code:

```
1 # open the file.txt in write mode.
2 fileptr = open("file2.txt", "a")
3
4 # overwriting the content of the file
5 fileptr.write(" Python has an easy syntax and user-friendly interaction.")
6
7 # closing the opened file
8 fileptr.close()
9
```

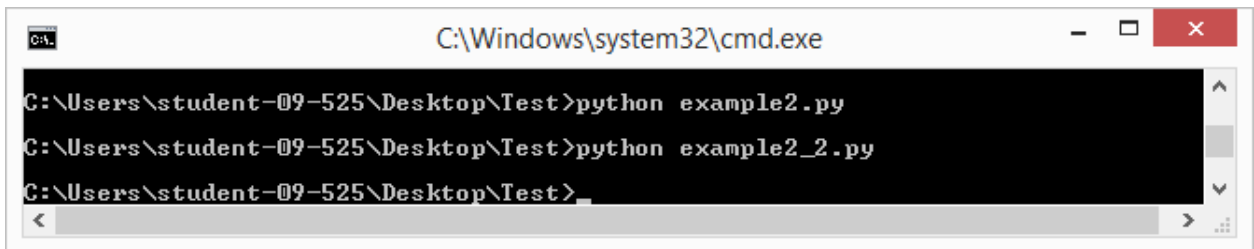
The status bar at the bottom indicates "Python file", "length : 233 lines : 9", "Ln : 8 Col : 16 Pos : 232", "Windows (CR LF)", "UTF-8", and "INS".



A screenshot of the Notepad++ application window. The title bar reads "C:\Users\student-09-525\Desktop\Test\example2\_2.py - Notepad++". The menu bar and toolbar are identical to the previous window. The editor area shows a Python script named "example2\_2.py" with the following code:

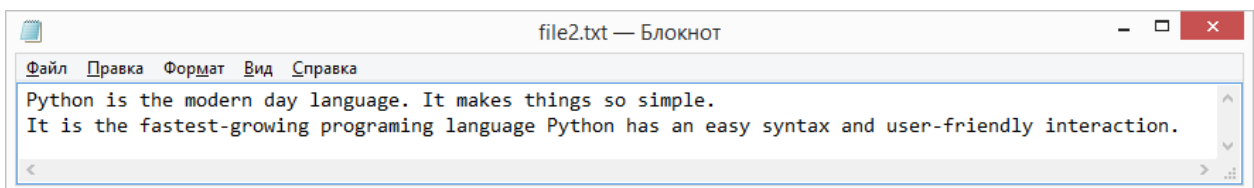
```
1 # open the file2.txt in write mode.
2 with open("file2.txt", "a") as fileptr:
3     # overwriting the content of the file
4     fileptr.write(" Python has an easy syntax and user-friendly interaction.")
```

The status bar at the bottom indicates "Python file", "length : 199 lines : 4", "Ln : 4 Col : 79 Pos : 200", "Windows (CR LF)", "UTF-8", and "INS".



A screenshot of the Windows Command Prompt window. The title bar reads "C:\Windows\system32\cmd.exe". The command prompt shows the following commands and output:

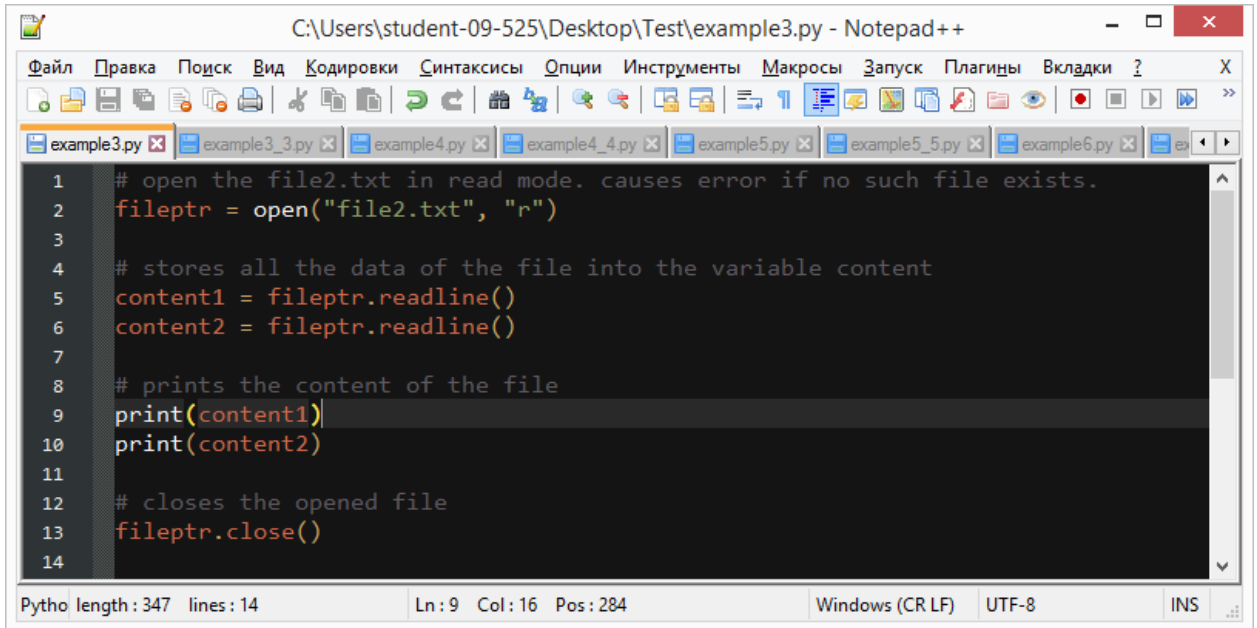
```
C:\Users\student-09-525\Desktop\Test>python example2.py
C:\Users\student-09-525\Desktop\Test>python example2_2.py
C:\Users\student-09-525\Desktop\Test>
```



A screenshot of the Notepad application window. The title bar reads "file2.txt — Блокнот". The menu bar includes "Файл", "Правка", "Формат", "Вид", and "Справка". The editor area shows the following text:

```
Python is the modern day language. It makes things so simple.
It is the fastest-growing programing language Python has an easy syntax and user-friendly interaction.
```

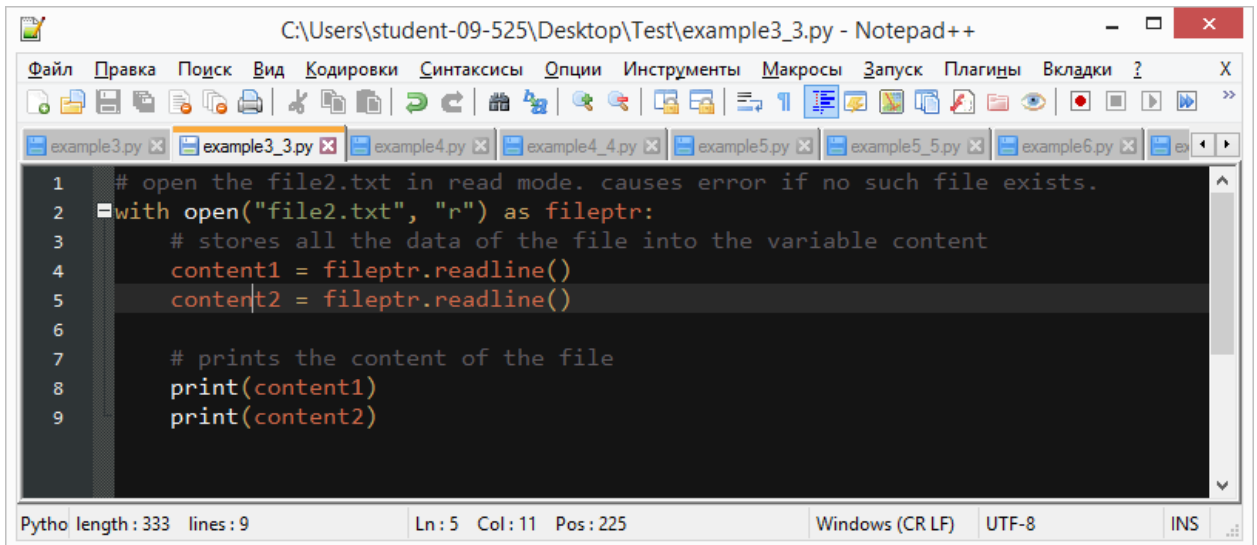
### Пример 3



The screenshot shows the Notepad++ editor with the file `example3.py` open. The code is as follows:

```
1 # open the file2.txt in read mode. causes error if no such file exists.
2 fileptr = open("file2.txt", "r")
3
4 # stores all the data of the file into the variable content
5 content1 = fileptr.readline()
6 content2 = fileptr.readline()
7
8 # prints the content of the file
9 print(content1)
10 print(content2)
11
12 # closes the opened file
13 fileptr.close()
14
```

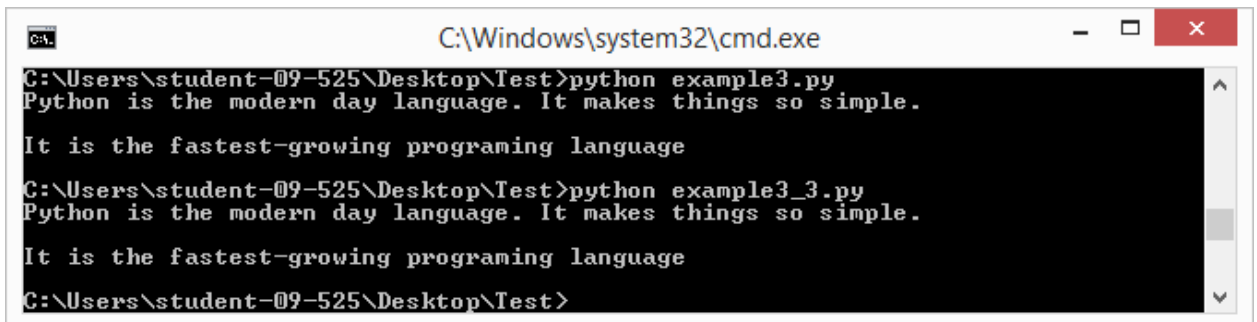
The status bar at the bottom indicates: Pytho length: 347 lines: 14 Ln: 9 Col: 16 Pos: 284 Windows (CR LF) UTF-8 INS.



The screenshot shows the Notepad++ editor with the file `example3_3.py` open. The code is as follows:

```
1 # open the file2.txt in read mode. causes error if no such file exists.
2 with open("file2.txt", "r") as fileptr:
3     # stores all the data of the file into the variable content
4     content1 = fileptr.readline()
5     content2 = fileptr.readline()
6
7 # prints the content of the file
8 print(content1)
9 print(content2)
```

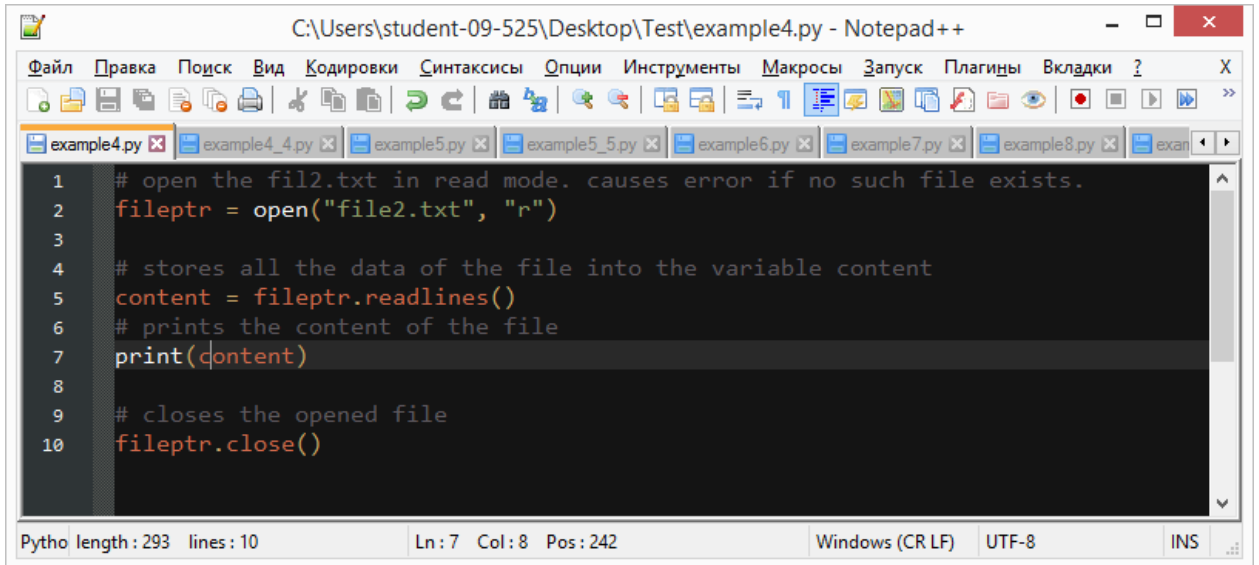
The status bar at the bottom indicates: Pytho length: 333 lines: 9 Ln: 5 Col: 11 Pos: 225 Windows (CR LF) UTF-8 INS.



The screenshot shows the Windows command prompt with the following commands and output:

```
C:\Windows\system32\cmd.exe
C:\Users\student-09-525\Desktop\Test>python example3.py
Python is the modern day language. It makes things so simple.
It is the fastest-growing programing language
C:\Users\student-09-525\Desktop\Test>python example3_3.py
Python is the modern day language. It makes things so simple.
It is the fastest-growing programing language
C:\Users\student-09-525\Desktop\Test>
```

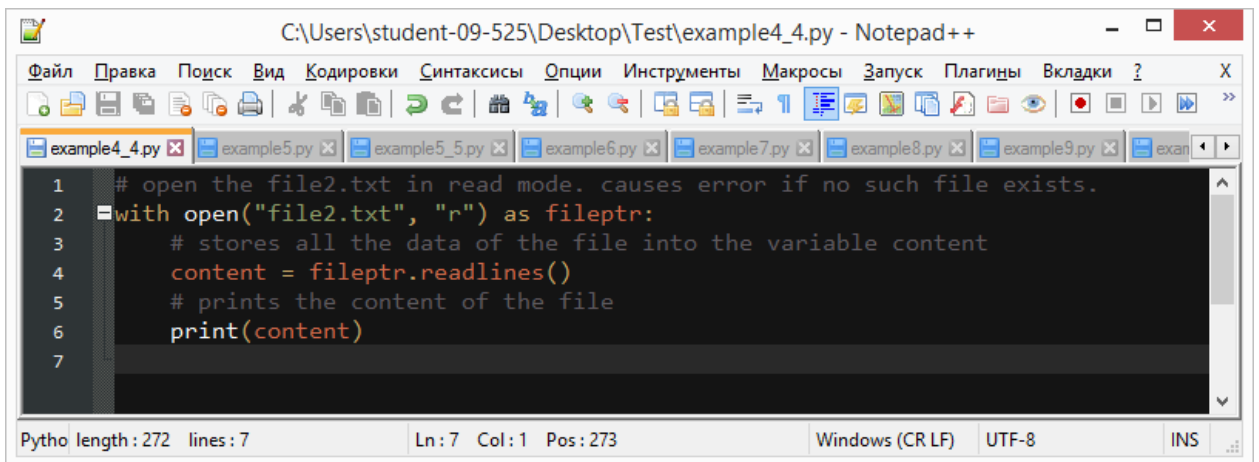
## Пример 4



The screenshot shows the Notepad++ editor with the file `example4.py` open. The code is as follows:

```
1 # open the file2.txt in read mode. causes error if no such file exists.
2 fileptr = open("file2.txt", "r")
3
4 # stores all the data of the file into the variable content
5 content = fileptr.readlines()
6 # prints the content of the file
7 print(content)
8
9 # closes the opened file
10 fileptr.close()
```

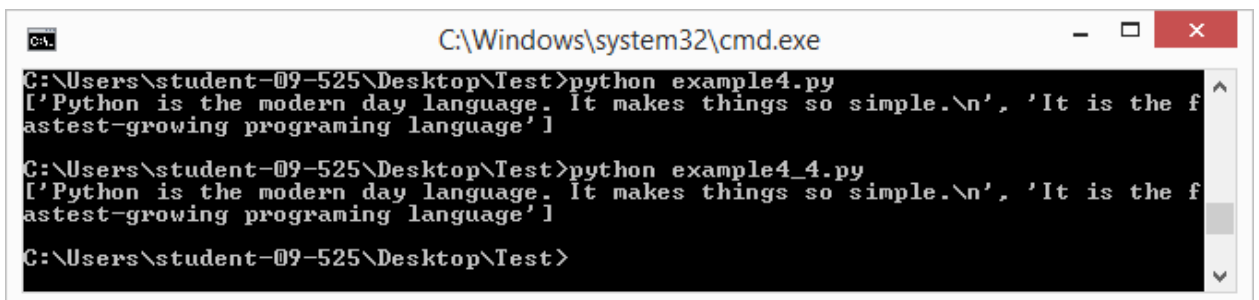
The status bar at the bottom indicates: Pytho length: 293 lines: 10 Ln: 7 Col: 8 Pos: 242 Windows (CR LF) UTF-8 INS.



The screenshot shows the Notepad++ editor with the file `example4_4.py` open. The code is as follows:

```
1 # open the file2.txt in read mode. causes error if no such file exists.
2 with open("file2.txt", "r") as fileptr:
3     # stores all the data of the file into the variable content
4     content = fileptr.readlines()
5     # prints the content of the file
6     print(content)
7
```

The status bar at the bottom indicates: Pytho length: 272 lines: 7 Ln: 7 Col: 1 Pos: 273 Windows (CR LF) UTF-8 INS.



The screenshot shows the Windows Command Prompt with the following commands and output:

```
C:\Users\student-09-525\Desktop\Test>python example4.py
['Python is the modern day language. It makes things so simple.\n', 'It is the f
astest-growing programing language']

C:\Users\student-09-525\Desktop\Test>python example4_4.py
['Python is the modern day language. It makes things so simple.\n', 'It is the f
astest-growing programing language']

C:\Users\student-09-525\Desktop\Test>
```

## Пример 5

C:\Users\student-09-525\Desktop\Test\example5.py - Notepad++

```
1 # open the newfile.txt in read mode. causes error if no such file exists.
2 fileptr = open("newfile.txt", "x")
3 print(fileptr)
4
5 if fileptr:
6     print("File created successfully")
7
8 # closes the opened file
9 fileptr.close()
```

Pytho length: 225 lines: 9 Ln: 6 Col: 25 Sel: 12 | 1 Windows (CR LF) UTF-8 INS

C:\Users\student-09-525\Desktop\Test\example5\_5.py - Notepad++

```
1 # open the newfile.txt in read mode. causes error if no such file exists.
2 with open("newfile.txt", "x") as fileptr:
3     print(fileptr)
4
5 if fileptr:
6     print("File created successfully")
```

Pytho length: 199 lines: 6 Ln: 6 Col: 43 Pos: 200 Windows (CR LF) UTF-8 INS

C:\Windows\system32\cmd.exe

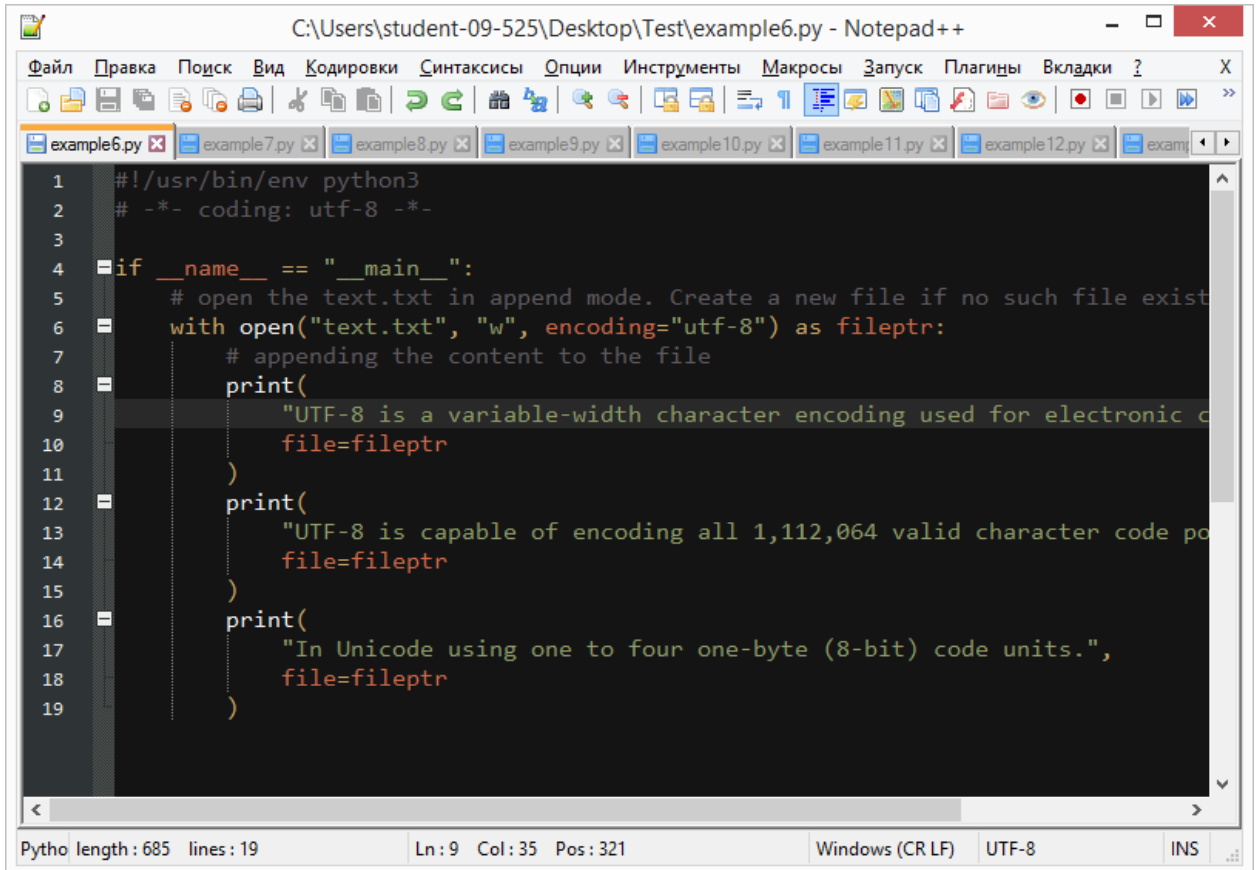
```
C:\Users\student-09-525\Desktop\Test>python example5.py
<_io.TextIOWrapper name='newfile.txt' mode='x' encoding='cp1251'>
File created successfully

C:\Users\student-09-525\Desktop\Test>python example5_5.py
File "example5_5.py", line 3
    print<fileptr>
    ^
IndentationError: expected an indented block

C:\Users\student-09-525\Desktop\Test>python example5_5.py
Traceback (most recent call last):
  File "example5_5.py", line 2, in <module>
    with open("newfile.txt", "x") as fileptr:
FileExistsError: [Errno 17] File exists: 'newfile.txt'

C:\Users\student-09-525\Desktop\Test>python example5_5.py
<_io.TextIOWrapper name='newfile.txt' mode='x' encoding='cp1251'>
File created successfully
```

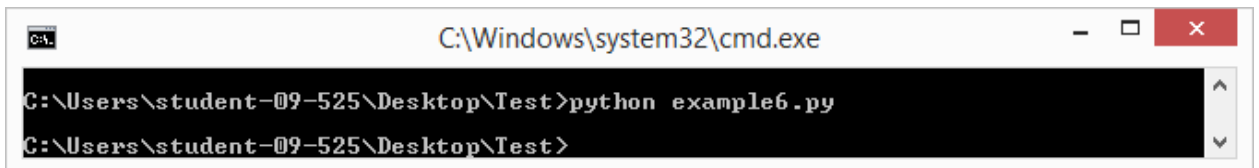
## Пример 6



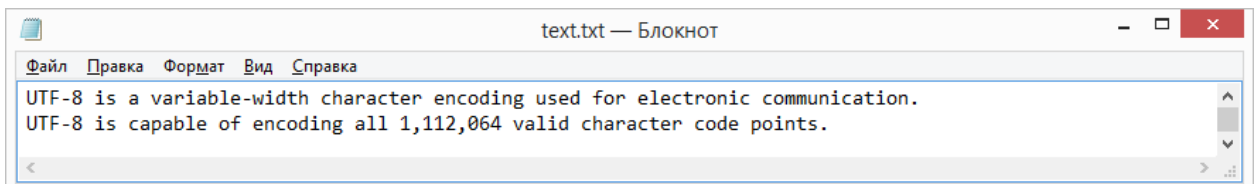
The screenshot shows the Notepad++ editor with the file `example6.py` open. The script is a Python 3 program that appends text to a file named `text.txt`. The code is as follows:

```
1  #!/usr/bin/env python3
2  # -*- coding: utf-8 -*-
3
4  if __name__ == "__main__":
5      # open the text.txt in append mode. Create a new file if no such file exist
6      with open("text.txt", "w", encoding="utf-8") as fileptr:
7          # appending the content to the file
8          print(
9              "UTF-8 is a variable-width character encoding used for electronic c
10             file=fileptr
11         )
12         print(
13             "UTF-8 is capable of encoding all 1,112,064 valid character code po
14             file=fileptr
15         )
16         print(
17             "In Unicode using one to four one-byte (8-bit) code units.",
18             file=fileptr
19         )
```

The status bar at the bottom indicates: Pytho length : 685 lines : 19, Ln : 9 Col : 35 Pos : 321, Windows (CR LF), UTF-8, INS.



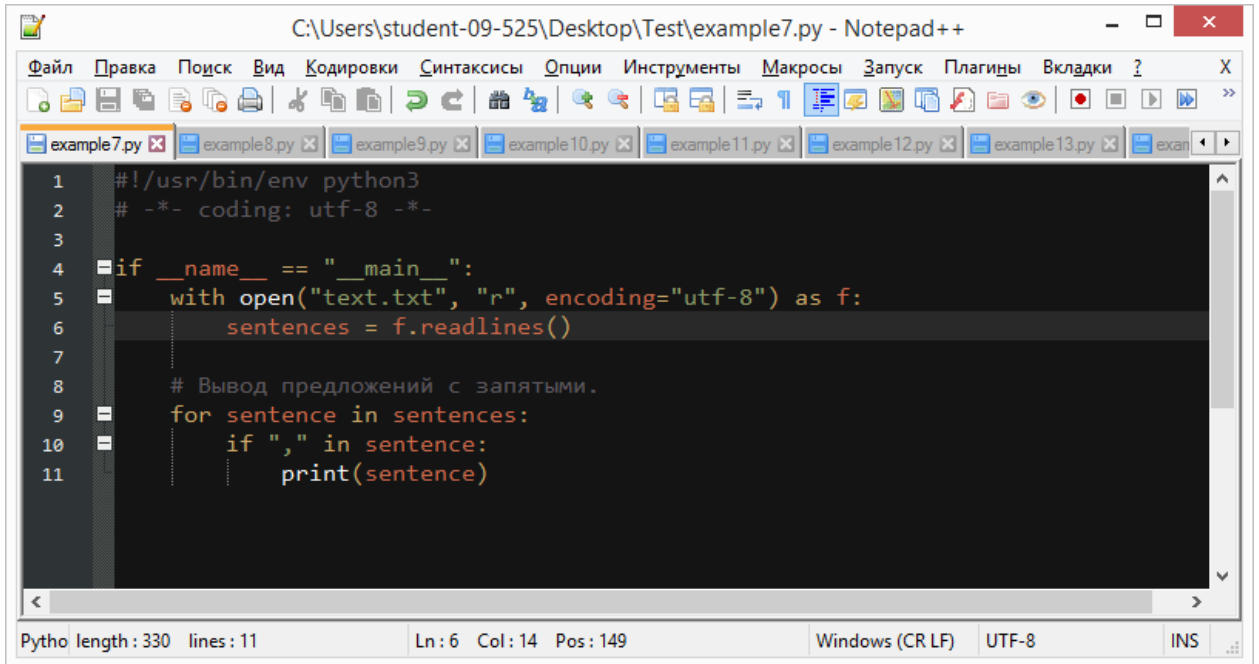
The screenshot shows a Windows command prompt window titled `C:\Windows\system32\cmd.exe`. The command `python example6.py` has been executed in the directory `C:\Users\student-09-525\Desktop\Test`. The prompt is now `C:\Users\student-09-525\Desktop\Test>`.



The screenshot shows a Windows Notepad window titled `text.txt — Блокнот`. The text displayed in the window is:

```
UTF-8 is a variable-width character encoding used for electronic communication.
UTF-8 is capable of encoding all 1,112,064 valid character code points.
```

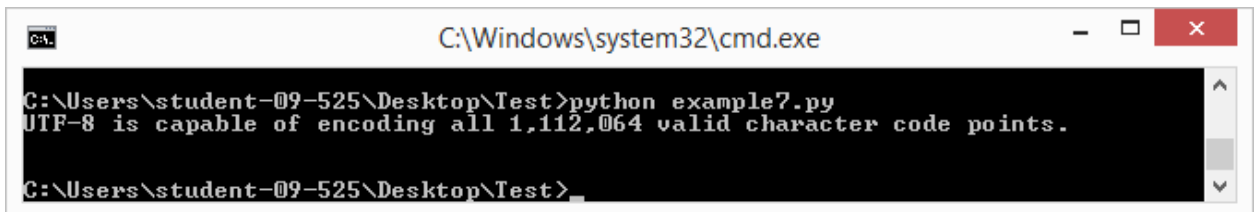
## Пример 7



The screenshot shows the Notepad++ editor with the file `example7.py` open. The code is a Python script that reads lines from `text.txt` and prints them if they contain a comma. The status bar at the bottom indicates the file is 330 characters long, 11 lines, and is using UTF-8 encoding.

```
1  #!/usr/bin/env python3
2  # -*- coding: utf-8 -*-
3
4  if __name__ == "__main__":
5      with open("text.txt", "r", encoding="utf-8") as f:
6          sentences = f.readlines()
7
8          # Вывод предложений с запятыми.
9          for sentence in sentences:
10             if "," in sentence:
11                 print(sentence)
```

Pytho length: 330 lines: 11 Ln: 6 Col: 14 Pos: 149 Windows (CR LF) UTF-8 INS

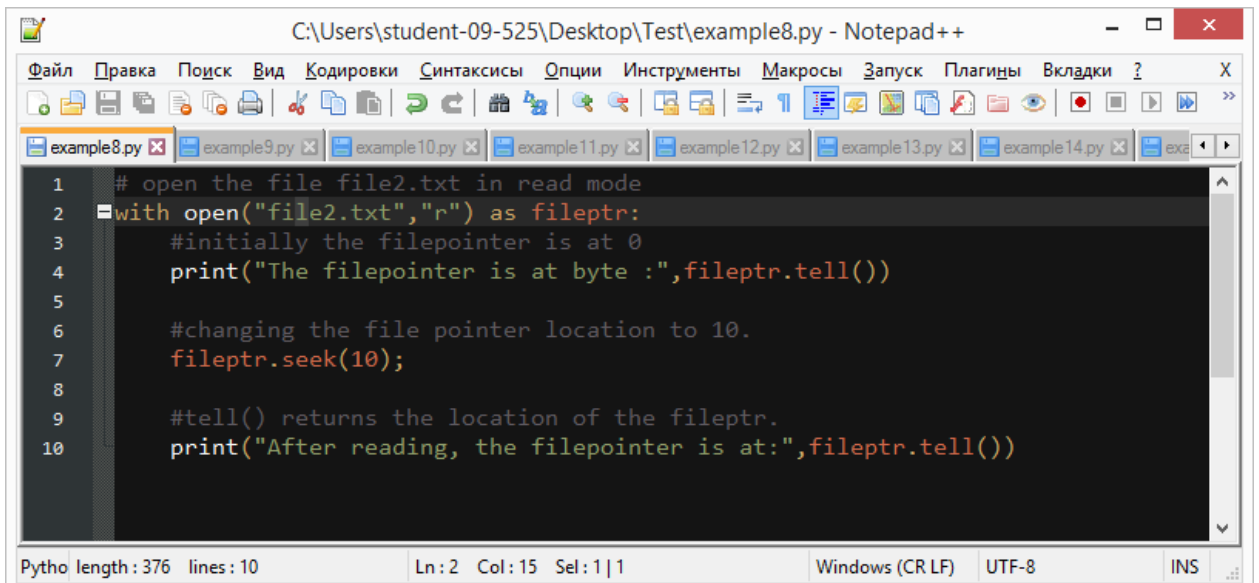


The screenshot shows a Windows command prompt window titled `C:\Windows\system32\cmd.exe`. It displays the command `python example7.py` being executed, which outputs the message: `UTF-8 is capable of encoding all 1,112,064 valid character code points.`

```
C:\Users\student-09-525\Desktop\Test>python example7.py
UTF-8 is capable of encoding all 1,112,064 valid character code points.

C:\Users\student-09-525\Desktop\Test>_
```

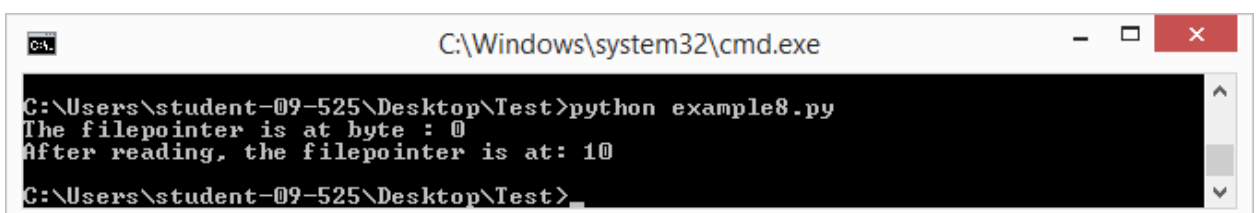
## Пример 8



The screenshot shows the Notepad++ editor with the file `example8.py` open. The code demonstrates file pointer operations: opening `file2.txt` in read mode, printing the current file pointer position (0), seeking to position 10, and then printing the new position (10). The status bar at the bottom indicates the file is 376 characters long, 10 lines, and is using UTF-8 encoding.

```
1  # open the file file2.txt in read mode
2  with open("file2.txt", "r") as fileptr:
3      #initially the filepointer is at 0
4      print("The filepointer is at byte :", fileptr.tell())
5
6      #changing the file pointer location to 10.
7      fileptr.seek(10);
8
9      #tell() returns the location of the fileptr.
10     print("After reading, the filepointer is at:", fileptr.tell())
```

Pytho length: 376 lines: 10 Ln: 2 Col: 15 Sel: 1|1 Windows (CR LF) UTF-8 INS



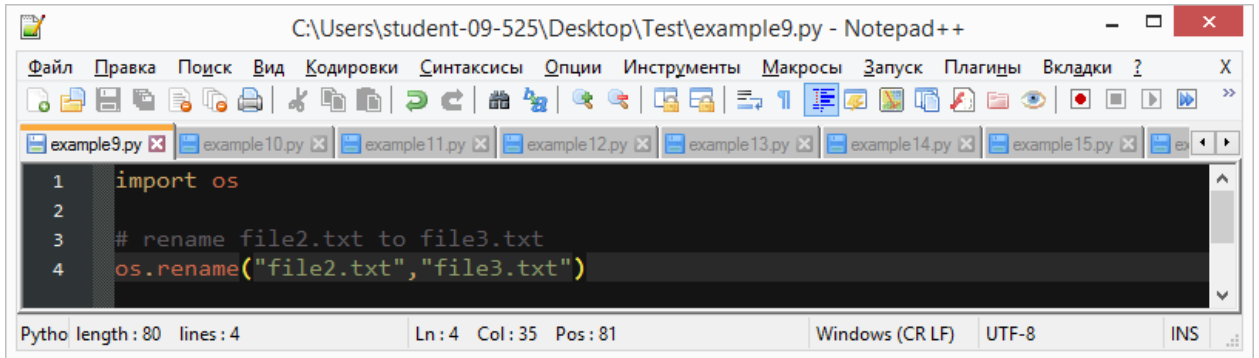
The screenshot shows a Windows command prompt window titled `C:\Windows\system32\cmd.exe`. It displays the command `python example8.py` being executed, which outputs two lines: `The filepointer is at byte : 0` and `After reading, the filepointer is at: 10`.

```
C:\Users\student-09-525\Desktop\Test>python example8.py
The filepointer is at byte : 0
After reading, the filepointer is at: 10

C:\Users\student-09-525\Desktop\Test>_
```



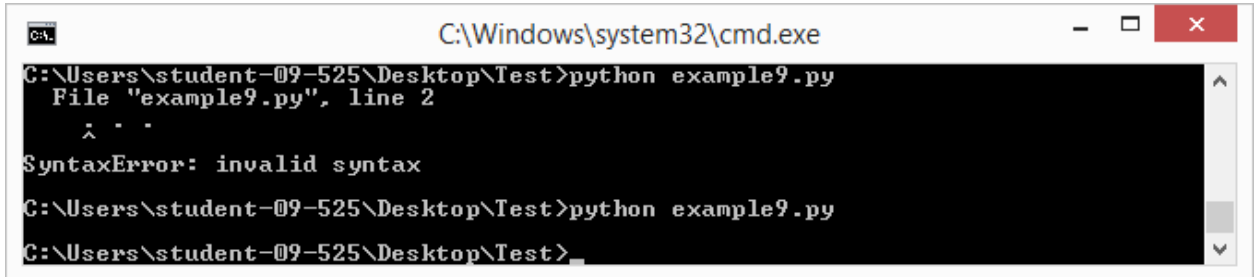
## Пример 9



The screenshot shows the Notepad++ editor window titled "C:\Users\student-09-525\Desktop\Test\example9.py - Notepad++". The menu bar includes "Файл", "Правка", "Поиск", "Вид", "Кодировки", "Синтаксисы", "Опции", "Инструменты", "Макросы", "Запуск", "Плагин", "Вкладки", and "?". The toolbar contains various icons for file operations and editing. The editor has multiple tabs open, with "example9.py" selected. The code in the editor is:

```
1 import os
2
3 # rename file2.txt to file3.txt
4 os.rename("file2.txt", "file3.txt")
```

The status bar at the bottom shows "Pytho length: 80 lines: 4", "Ln: 4 Col: 35 Pos: 81", "Windows (CR LF)", "UTF-8", and "INS".

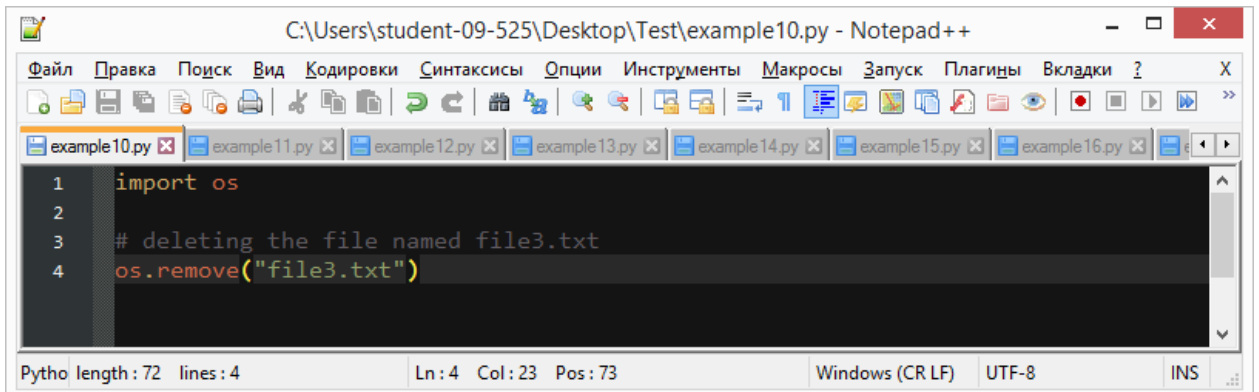


The screenshot shows a Windows command prompt window titled "C:\Windows\system32\cmd.exe". The prompt shows the execution of the command `python example9.py` from the directory `C:\Users\student-09-525\Desktop\Test`. The output is:

```
C:\Users\student-09-525\Desktop\Test>python example9.py
File "example9.py", line 2
    ^ - -
SyntaxError: invalid syntax

C:\Users\student-09-525\Desktop\Test>python example9.py
C:\Users\student-09-525\Desktop\Test>
```

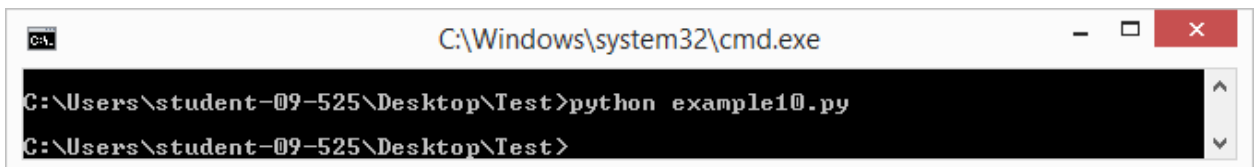
## Пример 10



The screenshot shows the Notepad++ editor window titled "C:\Users\student-09-525\Desktop\Test\example10.py - Notepad++". The menu bar and toolbar are the same as in the previous example. The editor has multiple tabs open, with "example10.py" selected. The code in the editor is:

```
1 import os
2
3 # deleting the file named file3.txt
4 os.remove("file3.txt")
```

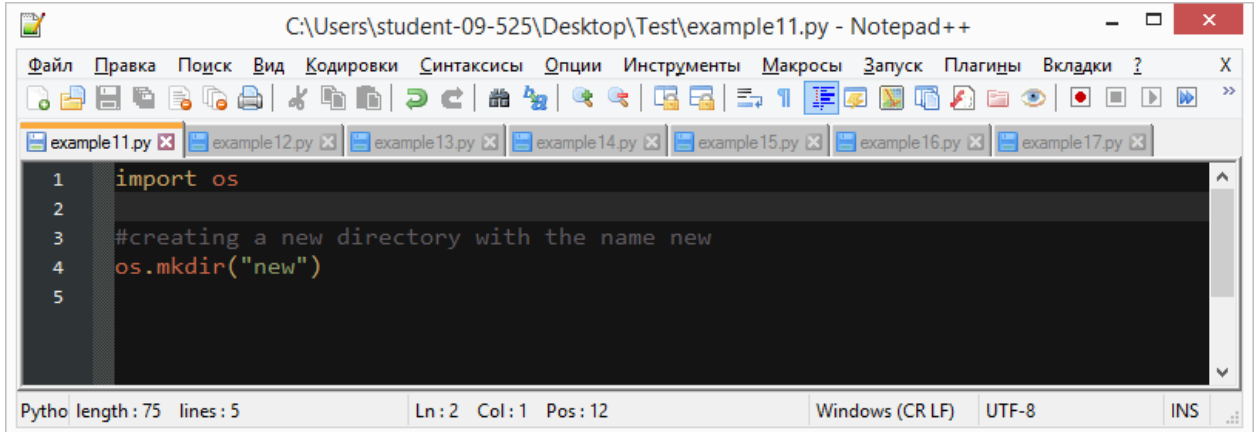
The status bar at the bottom shows "Pytho length: 72 lines: 4", "Ln: 4 Col: 23 Pos: 73", "Windows (CR LF)", "UTF-8", and "INS".



The screenshot shows a Windows command prompt window titled "C:\Windows\system32\cmd.exe". The prompt shows the execution of the command `python example10.py` from the directory `C:\Users\student-09-525\Desktop\Test`. The output is:

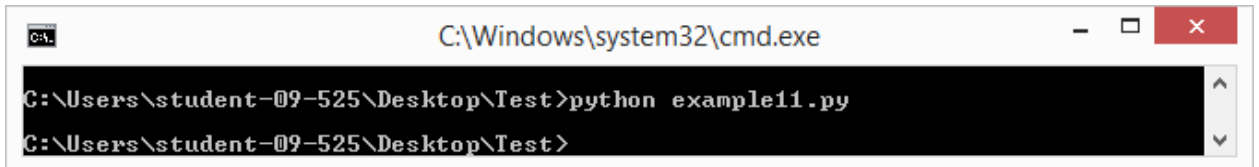
```
C:\Users\student-09-525\Desktop\Test>python example10.py
C:\Users\student-09-525\Desktop\Test>
```

## Пример 11



The screenshot shows the Notepad++ editor with the file `example11.py` open. The code contains five lines: `import os`, a blank line, a comment `#creating a new directory with the name new`, `os.mkdir("new")`, and another blank line. The status bar at the bottom indicates the file is Python, 75 characters long, 5 lines, and the cursor is at line 2, column 1, position 12. The encoding is UTF-8 and line endings are Windows (CR LF).

```
1 import os
2
3 #creating a new directory with the name new
4 os.mkdir("new")
5
```

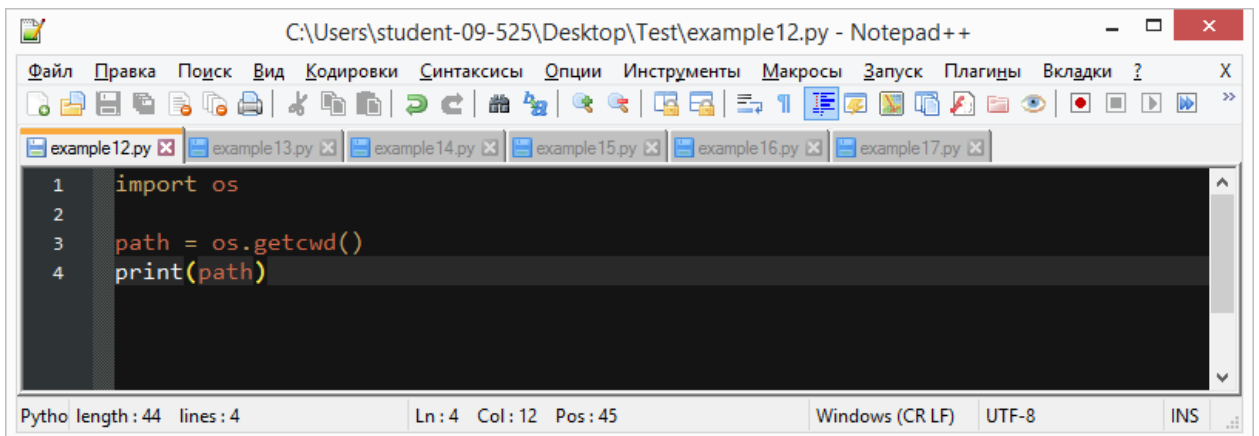


The screenshot shows a Windows command prompt window titled `C:\Windows\system32\cmd.exe`. The user has entered the command `python example11.py` and the prompt has moved to the next line, indicating successful execution.

```
C:\Users\student-09-525\Desktop\Test>python example11.py
C:\Users\student-09-525\Desktop\Test>
```

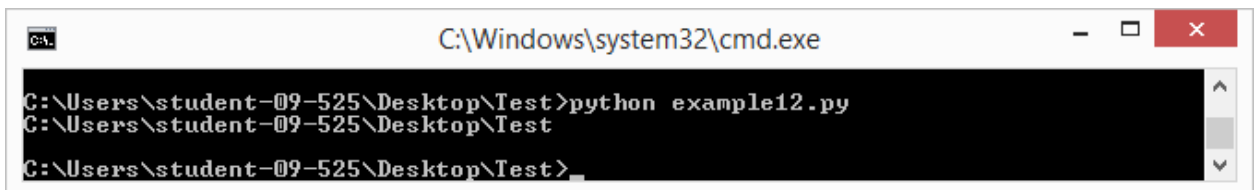


## Пример 12



The screenshot shows the Notepad++ editor with the file `example12.py` open. The code contains four lines: `import os`, a blank line, `path = os.getcwd()`, and `print(path)`. The status bar at the bottom indicates the file is Python, 44 characters long, 4 lines, and the cursor is at line 4, column 12, position 45. The encoding is UTF-8 and line endings are Windows (CR LF).

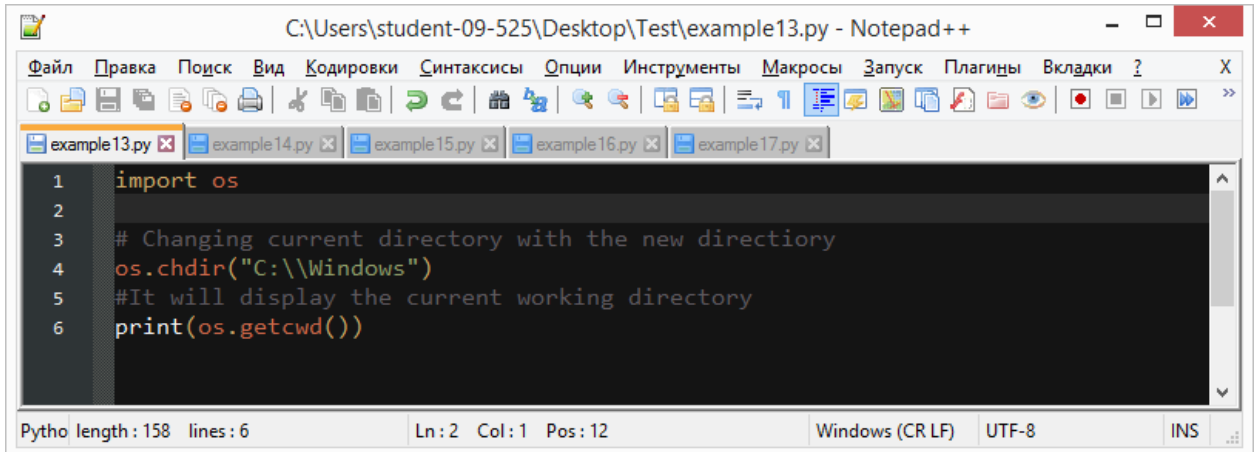
```
1 import os
2
3 path = os.getcwd()
4 print(path)
```



The screenshot shows a Windows command prompt window titled `C:\Windows\system32\cmd.exe`. The user has entered the command `python example12.py` and the output `C:\Users\student-09-525\Desktop\Test` has been displayed. The prompt is now on a new line.

```
C:\Users\student-09-525\Desktop\Test>python example12.py
C:\Users\student-09-525\Desktop\Test
C:\Users\student-09-525\Desktop\Test>
```

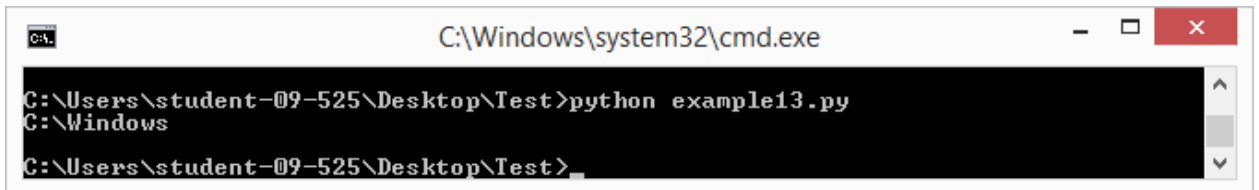
## Пример 13



The screenshot shows the Notepad++ editor with the file `example13.py` open. The code in the editor is as follows:

```
1 import os
2
3 # Changing current directory with the new directory
4 os.chdir("C:\\Windows")
5 #It will display the current working directory
6 print(os.getcwd())
```

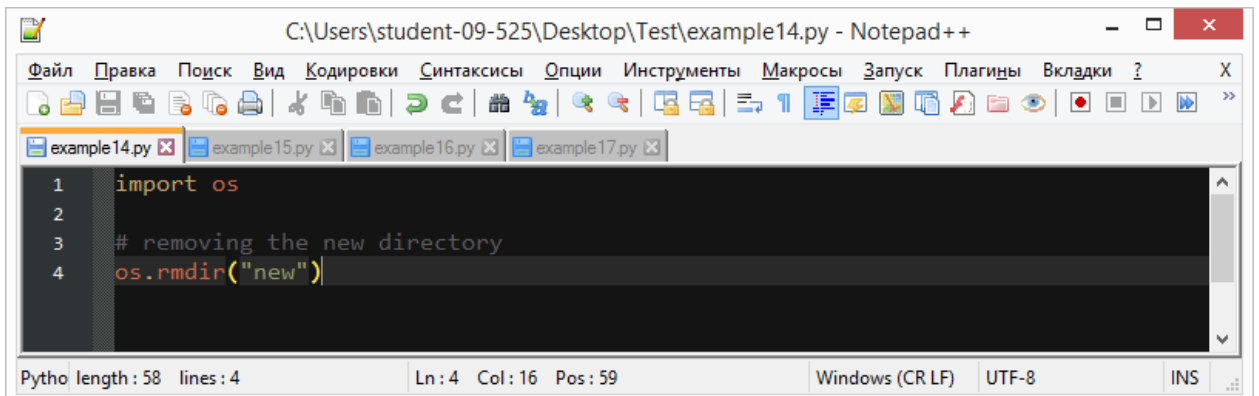
The status bar at the bottom indicates: Python length: 158 lines: 6, Ln: 2 Col: 1 Pos: 12, Windows (CR LF), UTF-8, INS.



The screenshot shows a Windows Command Prompt window titled `C:\Windows\system32\cmd.exe`. The command prompt shows the execution of `python example13.py` from the directory `C:\Users\student-09-525\Desktop\Test`. The output is `C:\Windows`.

```
C:\Users\student-09-525\Desktop\Test>python example13.py
C:\Windows
C:\Users\student-09-525\Desktop\Test>
```

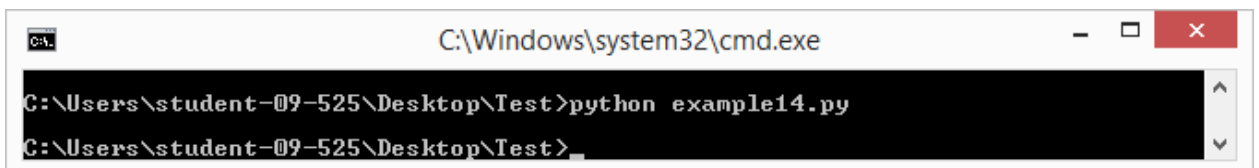
## Пример 14



The screenshot shows the Notepad++ editor with the file `example14.py` open. The code in the editor is as follows:

```
1 import os
2
3 # removing the new directory
4 os.rmdir("new")
```

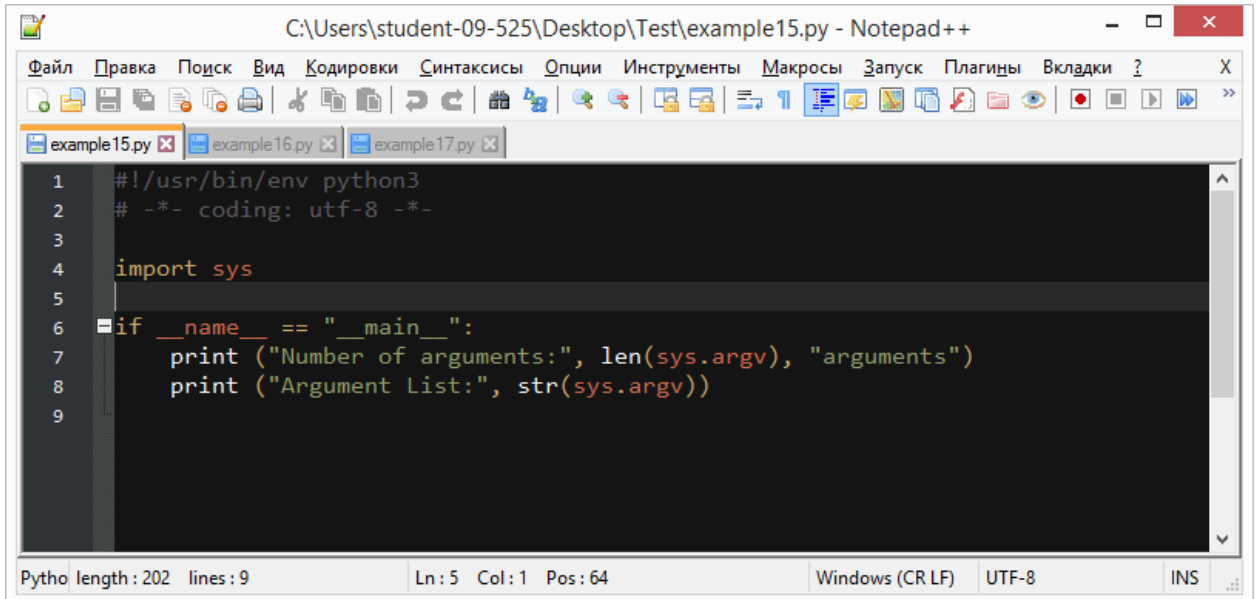
The status bar at the bottom indicates: Python length: 58 lines: 4, Ln: 4 Col: 16 Pos: 59, Windows (CR LF), UTF-8, INS.



The screenshot shows a Windows Command Prompt window titled `C:\Windows\system32\cmd.exe`. The command prompt shows the execution of `python example14.py` from the directory `C:\Users\student-09-525\Desktop\Test`. The output is `C:\Users\student-09-525\Desktop\Test`.

```
C:\Users\student-09-525\Desktop\Test>python example14.py
C:\Users\student-09-525\Desktop\Test>
```

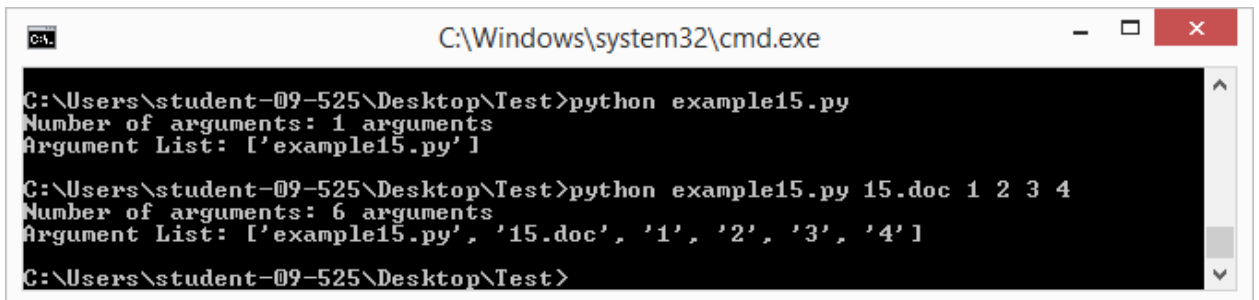
## Пример 15



The screenshot shows the Notepad++ editor with the file `example15.py` open. The code is as follows:

```
1  #!/usr/bin/env python3
2  # -*- coding: utf-8 -*-
3
4  import sys
5
6  if __name__ == "__main__":
7      print("Number of arguments:", len(sys.argv), "arguments")
8      print("Argument List:", str(sys.argv))
9
```

The status bar at the bottom indicates: Pytho length: 202 lines: 9 Ln: 5 Col: 1 Pos: 64 Windows (CR LF) UTF-8 INS.



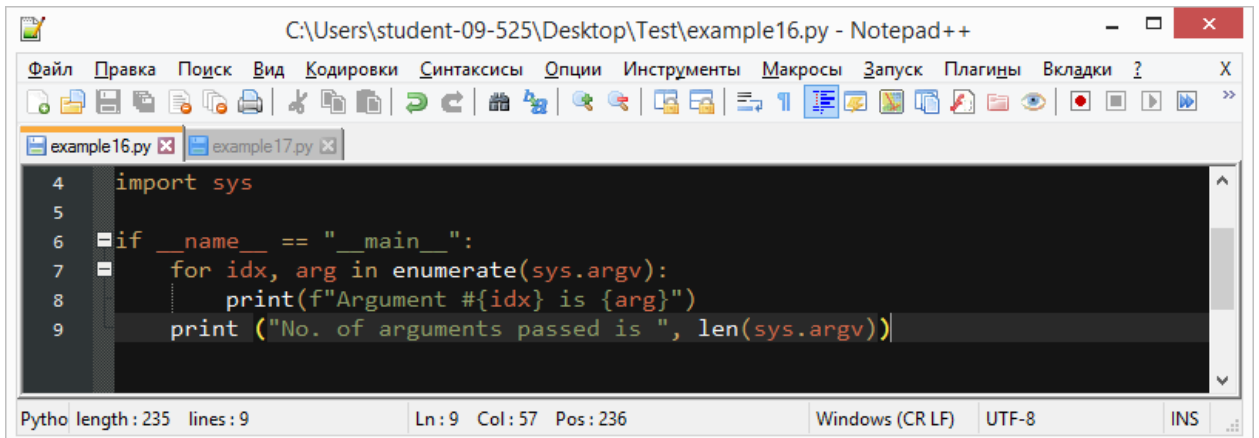
The screenshot shows a Windows command prompt window with the following commands and output:

```
C:\Users\student-09-525\Desktop\Test>python example15.py
Number of arguments: 1 arguments
Argument List: ['example15.py']

C:\Users\student-09-525\Desktop\Test>python example15.py 15.doc 1 2 3 4
Number of arguments: 6 arguments
Argument List: ['example15.py', '15.doc', '1', '2', '3', '4']

C:\Users\student-09-525\Desktop\Test>
```

## Пример 16



The screenshot shows the Notepad++ editor with the file `example16.py` open. The code is as follows:

```
4  import sys
5
6  if __name__ == "__main__":
7      for idx, arg in enumerate(sys.argv):
8          print(f"Argument #{idx} is {arg}")
9      print("No. of arguments passed is ", len(sys.argv))
```

The status bar at the bottom indicates: Pytho length: 235 lines: 9 Ln: 9 Col: 57 Pos: 236 Windows (CR LF) UTF-8 INS.

```
C:\Windows\system32\cmd.exe

C:\Users\student-09-525\Desktop\Test>python example16.py
Argument #0 is example16.py
No. of arguments passed is 1

C:\Users\student-09-525\Desktop\Test>python example16.py 15.doc 1 2 3 4
Argument #0 is example16.py
Argument #1 is 15.doc
Argument #2 is 1
Argument #3 is 2
Argument #4 is 3
Argument #5 is 4
No. of arguments passed is 6

C:\Users\student-09-525\Desktop\Test>
```

## Пример 17

```
C:\Users\student-09-525\Desktop\Test\example17.py - Notepad++

Файл  Правка  Поиск  Вид  Кодировки  Синтаксисы  Опции  Инструменты  Макросы  Запуск  Плагины  Вкладки  ?  X
[example17.py]

7  import sys
8
9  if __name__ == "__main__":
10     if len(sys.argv) != 2:
11         print("The password length is not given!", file=sys.stderr)
12         sys.exit(1)
13
14     chars = string.ascii_letters + string.punctuation + string.digits
15     length_pwd = int(sys.argv[1])
16
17     result = []
18     for _ in range(length_pwd):
19         idx = secrets.SystemRandom().randrange(len(chars))
20         result.append(chars[idx])
21
22     print(f"Secret Password: {''.join(result)}")
23

Pytho length: 580 lines: 23  Ln: 8 Col: 1 Pos: 106  Windows (CR LF)  UTF-8  INS
```

```
C:\Windows\system32\cmd.exe

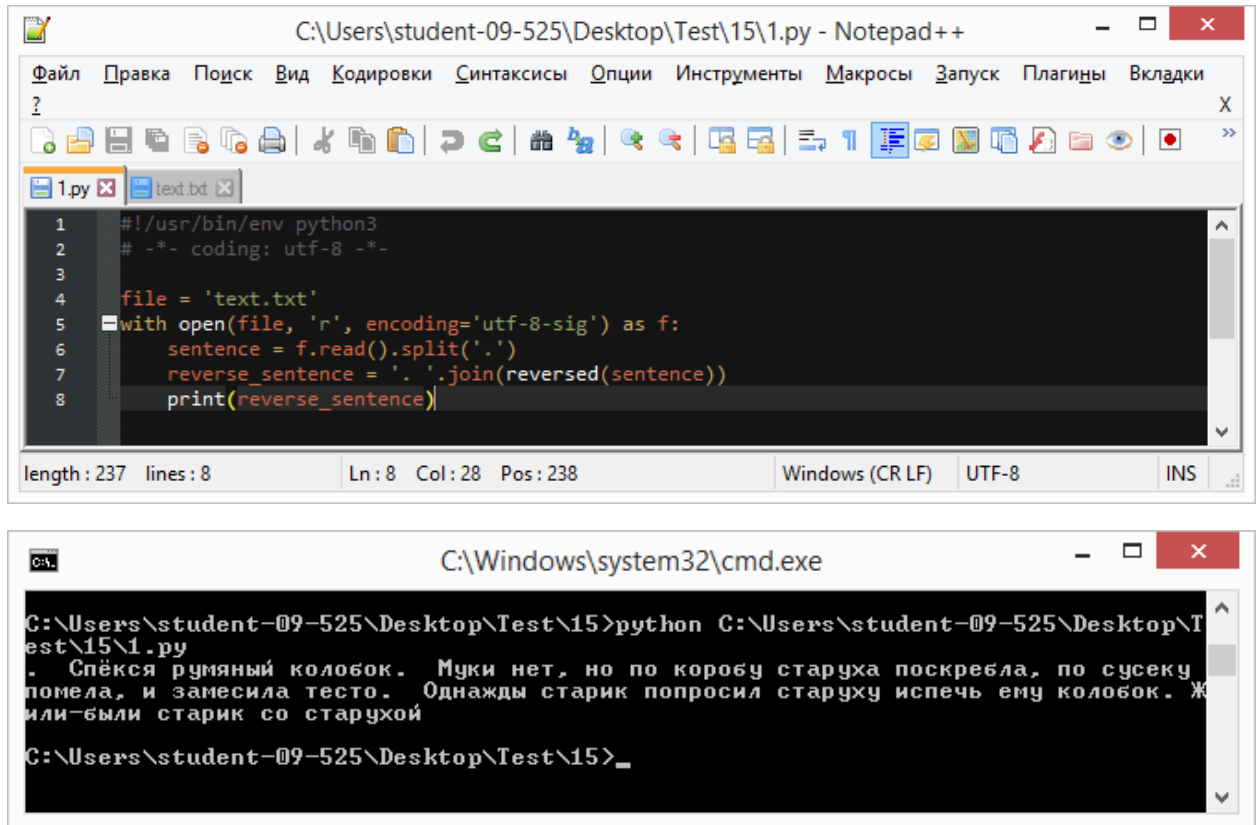
C:\Users\student-09-525\Desktop\Test>python example17.py 50
Secret Password: G"aHB0=^cP7lIQz0mj8P<I'hxH!MH^lwgnx'Ujc<r&j-t#NW<

C:\Users\student-09-525\Desktop\Test>
```

## Индивидуальные задания

### Задание 1

1. Написать программу, которая считывает из текстового файла три предложения и выводит их в обратном порядке.



The image shows two windows. The top window is Notepad++ with a file named '1.py' open. The code in the file is as follows:

```
1  #!/usr/bin/env python3
2  # -*- coding: utf-8 -*-
3
4  file = 'text.txt'
5  with open(file, 'r', encoding='utf-8-sig') as f:
6      sentence = f.read().split('.')
7      reverse_sentence = '. '.join(reversed(sentence))
8      print(reverse_sentence)
```

The bottom window is a Windows Command Prompt (cmd.exe) showing the execution of the script. The command entered is `python C:\Users\student-09-525\Desktop\Test\15\1.py`. The output is:

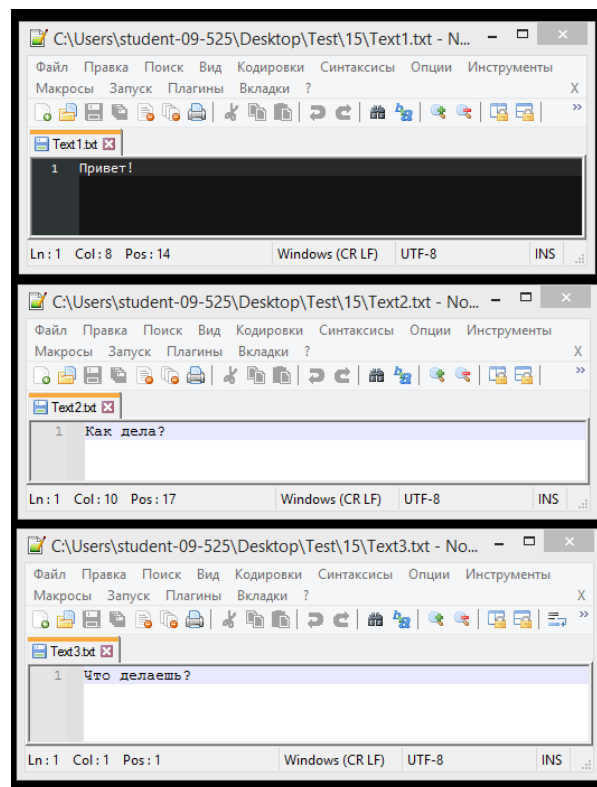
```
C:\Users\student-09-525\Desktop\Test\15>python C:\Users\student-09-525\Desktop\T
est\15\1.py
. Спёлся румяный колобок. Муки нет, но по корову старуха поскребла, по сусеку
помела, и замесила тесто. Однажды старик попросил старуху испечь ему колобок. Ж
или-были старик со старухой
C:\Users\student-09-525\Desktop\Test\15>_
```

### Задание 2

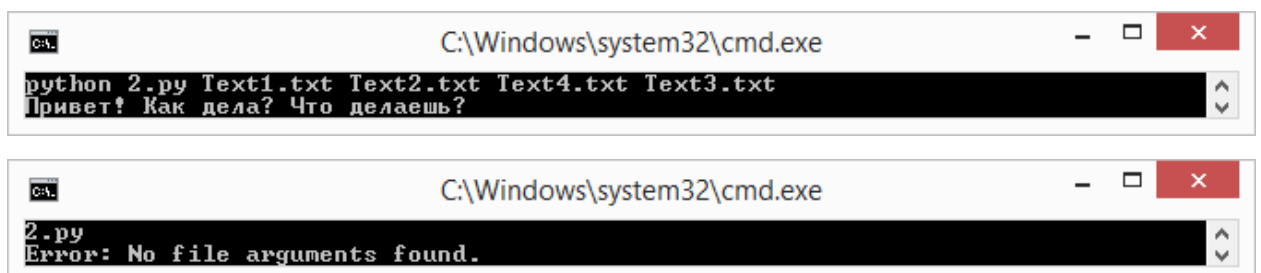
3. Продолжаем тему операционных систем на базе Unix, в которых обычно также есть утилита с названием `cat`, что является сокращением от `concatenate` (сцепить). Эта утилита выводит на экран объединенное содержимое нескольких файлов, имена которых передаются ей в качестве аргументов командной строки. При этом файлы сцепляются в том порядке, в котором указаны в аргументах. Напишите программу на Python, имитирующую работу этой утилиты. В процессе работы программа должна выдавать сообщения о том, какие файлы открыть не удастся, и переходить к следующим файлам. Если программа была запущена без аргументов командной строки, на экран должно быть выведено соответствующее сообщение об ошибке.

```
D:\ЯндексДиск\Синхронизация\YandexDisk\ИМИТ СКФУ\Курсы\2\Семетр\4\Основы программной инженерии\Выпол...
Файл Правка Поиск Вид Кодировки Синтаксисы Опции Инструменты Макросы Запуск Плагины Вкладки ?
2.py
1 #!/usr/bin/env python3
2 # -*- coding: utf-8 -*-
3
4 import sys
5
6 text = ""
7
8 if len(sys.argv) <= 1:
9     print("Error: No file arguments found.")
10    exit()
11
12 for filename in sys.argv:
13     if sys.argv[0] == filename:
14         continue
15
16     try:
17         with open(filename, "r" , encoding="utf-8") as a:
18             buf = a.read()
19             text = text + buf + " "
20     except:
21         pass
22
23 print(text)
```

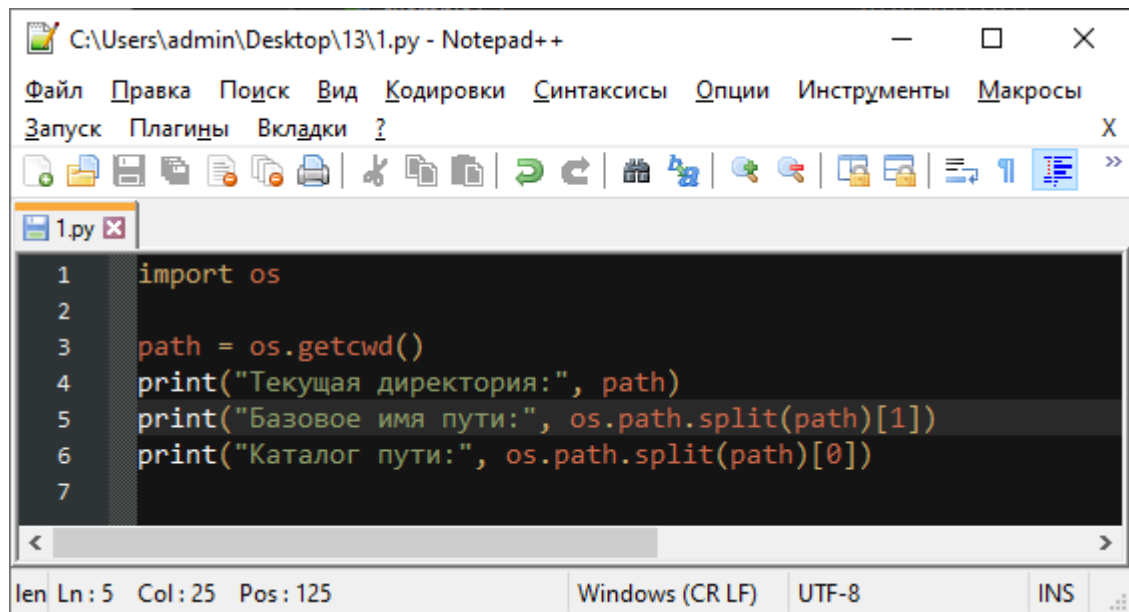
Python file length: 418 lines: 24 Ln: 24 Col: 1 Pos: 419 Windows (CR LF) UTF-8 INS



14



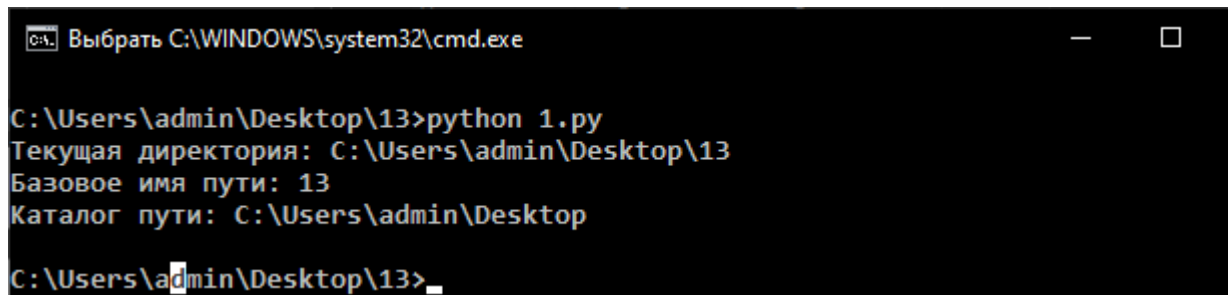
## Самостоятельно



The screenshot shows a Notepad++ window titled "C:\Users\admin\Desktop\13\1.py - Notepad++". The menu bar includes "Файл", "Правка", "Поиск", "Вид", "Кодировки", "Синтаксисы", "Опции", "Инструменты", and "Макросы". The toolbar contains various icons for file operations and editing. The editor shows a Python script with the following code:

```
1 import os
2
3 path = os.getcwd()
4 print("Текущая директория:", path)
5 print("Базовое имя пути:", os.path.split(path)[1])
6 print("Каталог пути:", os.path.split(path)[0])
7
```

The status bar at the bottom indicates "len Ln: 5 Col: 25 Pos: 125", "Windows (CR LF)", "UTF-8", and "INS".



The screenshot shows a Windows Command Prompt window titled "Выбрать C:\WINDOWS\system32\cmd.exe". The prompt is at "C:\Users\admin\Desktop\13>". The user has entered the command "python 1.py", and the output is as follows:

```
C:\Users\admin\Desktop\13>python 1.py
Текущая директория: C:\Users\admin\Desktop\13
Базовое имя пути: 13
Каталог пути: C:\Users\admin\Desktop

C:\Users\admin\Desktop\13>_
```