

# Python - ugrađene funkcije i rad sa datotekama



# Ugrađene funkcije

- Pajton ima veliki broj programerskih alata, - ugradjene funkcije i module koji su napisani za korićenje. Ove funkcije omogućavaju mnogo lakše i brže pisanje programa.

Funkcija	Rezultat
<code>abs(-10) –</code>	10 - apsolunta vrednost
<code>print(bool(1))</code> <code>print(bool(12.5))</code> <code>print(bool(0))</code> <code>print(bool(None))</code> <code>print(bool("Zdravo svete"))</code>	True True False False True
<code>print(list(range(0, 30, 2)))</code>	[0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28]
<code>print(sum(lista_brojeva))</code>	zbir brojeva
<code>float("12"), int("12")</code>	12.0, 12 promena tipa podatka u float, int
<code>len(string)</code>	dužina stringa
<code>min([5, 4, 10, 30, 22])</code> <code>max([5, 4, 10, 30, 22])</code>	4 minimalni element liste 30 maksimalan element liste

# dir()

Dir funkcija listu metoda koje se mogu primeniti nad nekim tipom podatka.

The screenshot shows a Windows-style window titled "Python 3.3.3 Shell". The title bar has a red "76" icon. The menu bar includes File, Edit, Shell, Debug, Options, Windows, and Help. The main window displays the Python 3.3.3 interpreter environment. It starts with the standard welcome message and then shows the result of running the `dir()` function on a list object. The output lists numerous methods available for the list type, such as \_\_add\_\_, \_\_contains\_\_, \_\_delattr\_\_, \_\_delitem\_\_, \_\_dir\_\_, \_\_doc\_\_, \_\_eq\_\_, \_\_format\_\_, \_\_ge\_\_, \_\_getattribute\_\_, \_\_getitem\_\_, \_\_gt\_\_, \_\_hash\_\_, \_\_iadd\_\_, \_\_imul\_\_, \_\_init\_\_, \_\_iter\_\_, \_\_le\_\_, \_\_len\_\_, \_\_lt\_\_, \_\_mul\_\_, \_\_ne\_\_, \_\_new\_\_, \_\_reduce\_\_, \_\_reduce\_ex\_\_, \_\_repr\_\_, \_\_reversed\_\_, \_\_rmul\_\_, \_\_setattr\_\_, \_\_setitem\_\_, \_\_sizeof\_\_, \_\_str\_\_, \_\_subclasshook\_\_, and various list-specific methods like append, clear, copy, count, extend, index, insert, pop, remove, reverse, and sort.

```
76 Python 3.3.3 Shell
File Edit Shell Debug Options Windows Help
Python 3.3.3 (v3.3.3:c3896275c0f6, Nov 18 2013, 21:19:30) [MSC v.1600 64 bit (AM
D64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
>>>
>>> dir(['a', 'short', 'list'])
['__add__', '__class__', '__contains__', '__delattr__', '__delitem__', '__dir__',
 '__doc__', '__eq__', '__format__', '__ge__', '__getattribute__', '__getitem__',
 '__gt__', '__hash__', '__iadd__', '__imul__', '__init__', '__iter__', '__le__',
 '__len__', '__lt__', '__mul__', '__ne__', '__new__', '__reduce__', '__reduce_ex__',
 '__repr__', '__reversed__', '__rmul__', '__setattr__', '__setitem__', '__sizeof__',
 '__str__', '__subclasshook__', 'append', 'clear', 'copy', 'count', 'ext
end', 'index', 'insert', 'pop', 'remove', 'reverse', 'sort']
>>>
```

# dir()

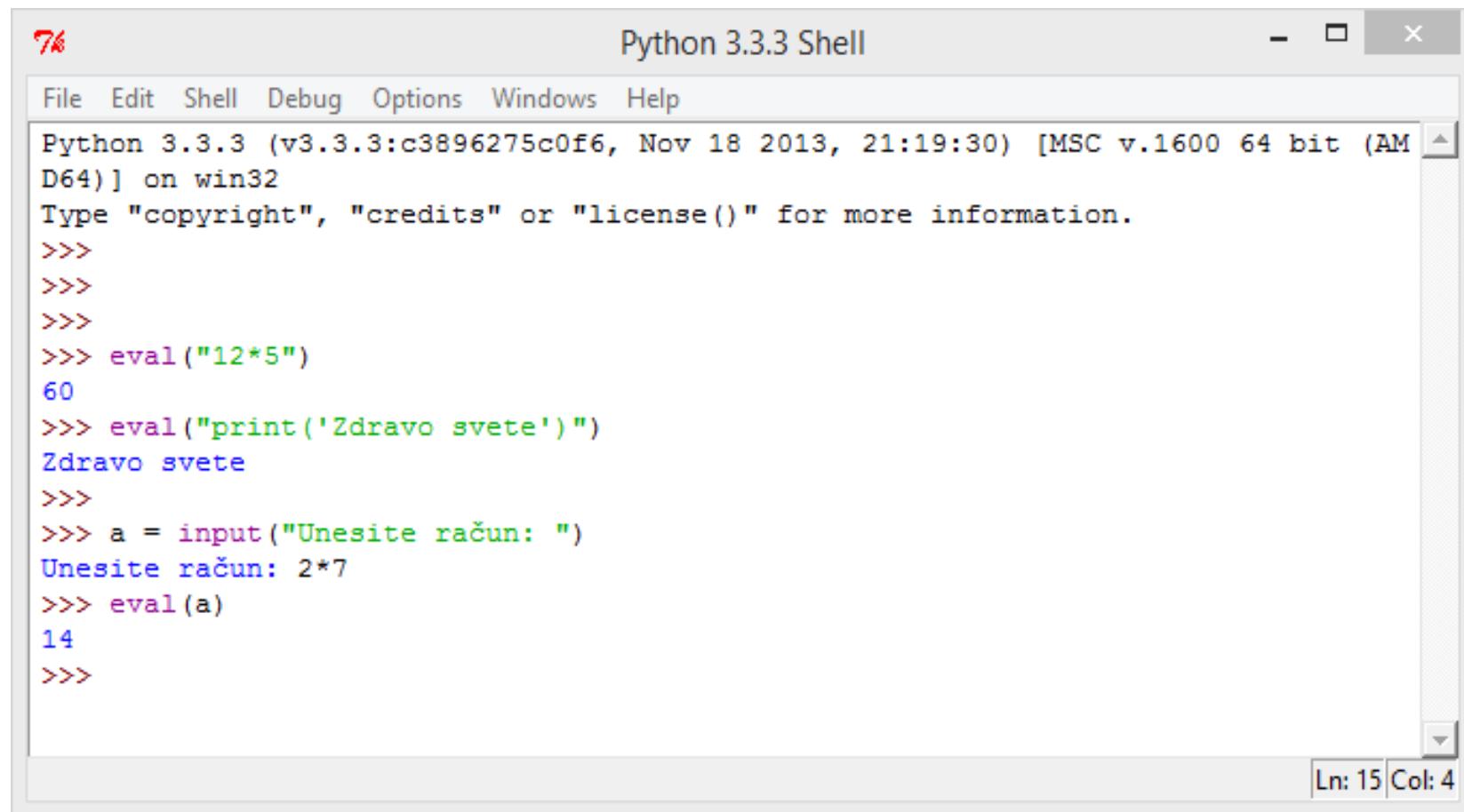
The screenshot shows a Windows-style application window titled "Python 3.3.3 Shell". The menu bar includes File, Edit, Shell, Debug, Options, Windows, and Help. The main window displays the Python 3.3.3 interpreter. It starts with the version information: "Python 3.3.3 (v3.3.3:c3896275c0f6, Nov 18 2013, 21:19:30) [MSC v.1600 64 bit (AMD64)] on win32". It then prompts the user with "Type "copyright", "credits" or "license()" for more information." followed by three greater-than signs (">>">). The user enters "kokice = "Ja volim kokice!" and then "dir(kokice)". The output lists numerous methods and attributes of the string object, including \_\_add\_\_, \_\_class\_\_, \_\_contains\_\_, \_\_delattr\_\_, \_\_dir\_\_, \_\_doc\_\_, \_\_eq\_\_, \_\_format\_\_, \_\_ge\_\_, \_\_getattribute\_\_, \_\_getitem\_\_, \_\_getnewargs\_\_, \_\_gt\_\_, \_\_hash\_\_, \_\_init\_\_, \_\_iter\_\_, \_\_le\_\_, \_\_len\_\_, \_\_lt\_\_, \_\_mod\_\_, \_\_mul\_\_, \_\_ne\_\_, \_\_new\_\_, \_\_reduce\_\_, \_\_reduce\_ex\_\_, \_\_repr\_\_, \_\_rmod\_\_, \_\_rmul\_\_, \_\_setattr\_\_, \_\_sizeof\_\_, \_\_str\_\_, \_\_subclasshook\_\_, \_\_capitalize\_\_, \_\_casefold\_\_, \_\_center\_\_, \_\_count\_\_, \_\_encode\_\_, \_\_endswith\_\_, \_\_expandtabs\_\_, \_\_find\_\_, \_\_format\_\_, \_\_format\_map\_\_, \_\_index\_\_, \_\_isalnum\_\_, \_\_isalpha\_\_, \_\_isdecimal\_\_, \_\_isdigit\_\_, \_\_isidentifier\_\_, \_\_islower\_\_, \_\_isnumeric\_\_, \_\_isprintable\_\_, \_\_isspace\_\_, \_\_istitle\_\_, \_\_isupper\_\_, \_\_join\_\_, \_\_ljust\_\_, \_\_lower\_\_, \_\_lstrip\_\_, \_\_maketrans\_\_, \_\_partition\_\_, \_\_replace\_\_, \_\_rfind\_\_, \_\_rindex\_\_, \_\_rjust\_\_, \_\_rpartition\_\_, \_\_rsplit\_\_, \_\_rstrip\_\_, \_\_split\_\_, \_\_splitlines\_\_, \_\_startswith\_\_, \_\_strip\_\_, \_\_swapcase\_\_, \_\_title\_\_, \_\_translate\_\_, \_\_upper\_\_, and \_\_zfill\_\_.

```
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Type "copyright", "credits" or "license()" for more information.
>>>
>>> kokice = "Ja volim kokice!"
>>> dir(kokice)
['__add__', '__class__', '__contains__', '__delattr__', '__dir__', '__doc__', '__eq__', '__format__', '__ge__', '__getattribute__', '__getitem__', '__getnewargs__', '__gt__', '__hash__', '__init__', '__iter__', '__le__', '__len__', '__lt__', '__mod__', '__mul__', '__ne__', '__new__', '__reduce__', '__reduce_ex__', '__repr__', '__rmod__', '__rmul__', '__setattr__', '__sizeof__', '__str__', '__subclasshook__', '__capitalize__', '__casefold__', '__center__', '__count__', '__encode__', '__endswith__', '__expandtabs__', '__find__', '__format__', '__format_map__', '__index__', '__isalnum__', '__isalpha__', '__isdecimal__', '__isdigit__', '__isidentifier__', '__islower__', '__isnumeric__', '__isprintable__', '__isspace__', '__istitle__', '__isupper__', '__join__', '__ljust__', '__lower__', '__lstrip__', '__maketrans__', '__partition__', '__replace__', '__rfind__', '__rindex__', '__rjust__', '__rpartition__', '__rsplit__', '__rstrip__', '__split__', '__splitlines__', '__startswith__', '__strip__', '__swapcase__', '__title__', '__translate__', '__upper__', '__zfill__']
>>>
```

Ln: 7 Col: 4

# eval()

- Eval funkcija uzima string kao parametar i izvršava preko python izraza.



The screenshot shows a window titled "Python 3.3.3 Shell". The menu bar includes File, Edit, Shell, Debug, Options, Windows, and Help. The main area displays a Python session:

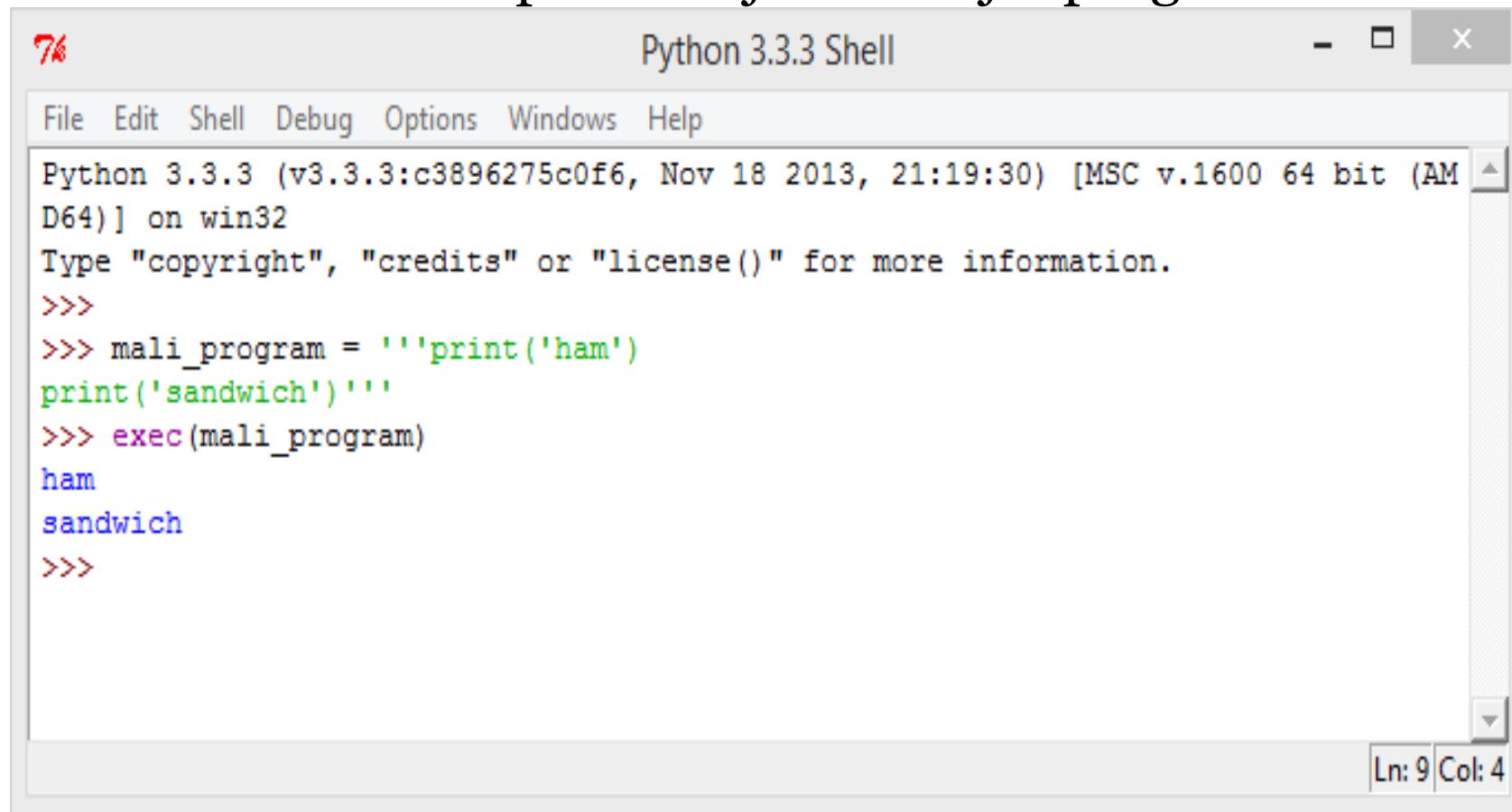
```
76 Python 3.3.3 Shell
File Edit Shell Debug Options Windows Help
Python 3.3.3 (v3.3.3:c3896275c0f6, Nov 18 2013, 21:19:30) [MSC v.1600 64 bit (AM
D64)] on win32
Type "copyright", "credits" or "license()" for more information.

>>>
>>>
>>>
>>> eval("12*5")
60
>>> eval("print('Zdravo svete')")
Zdravo svete
>>>
>>> a = input("Unesite račun: ")
Unesite račun: 2*7
>>> eval(a)
14
>>>
```

The bottom right corner of the window shows "Ln: 15 Col: 4".

# exec()

- Exec je slična eval ugrađenoj funkciji, osim što je možete iskoristiti za pokretanje složenijih programa.



The screenshot shows a Python 3.3.3 Shell window. The title bar reads "Python 3.3.3 Shell". The menu bar includes File, Edit, Shell, Debug, Options, Windows, and Help. The main window displays the following Python session:

```
76 Python 3.3.3 Shell
File Edit Shell Debug Options Windows Help
Python 3.3.3 (v3.3.3:c3896275c0f6, Nov 18 2013, 21:19:30) [MSC v.1600 64 bit (AM
D64)] on win32
Type "copyright", "credits" or "license()" for more information.

>>>
>>> mali_program = '''print('ham')
print('sandwich')'''
>>> exec(mali_program)
ham
sandwich
>>>
```

In the bottom right corner of the shell window, there is a status bar with "Ln: 9 Col: 4".

# Rad sa datotekama

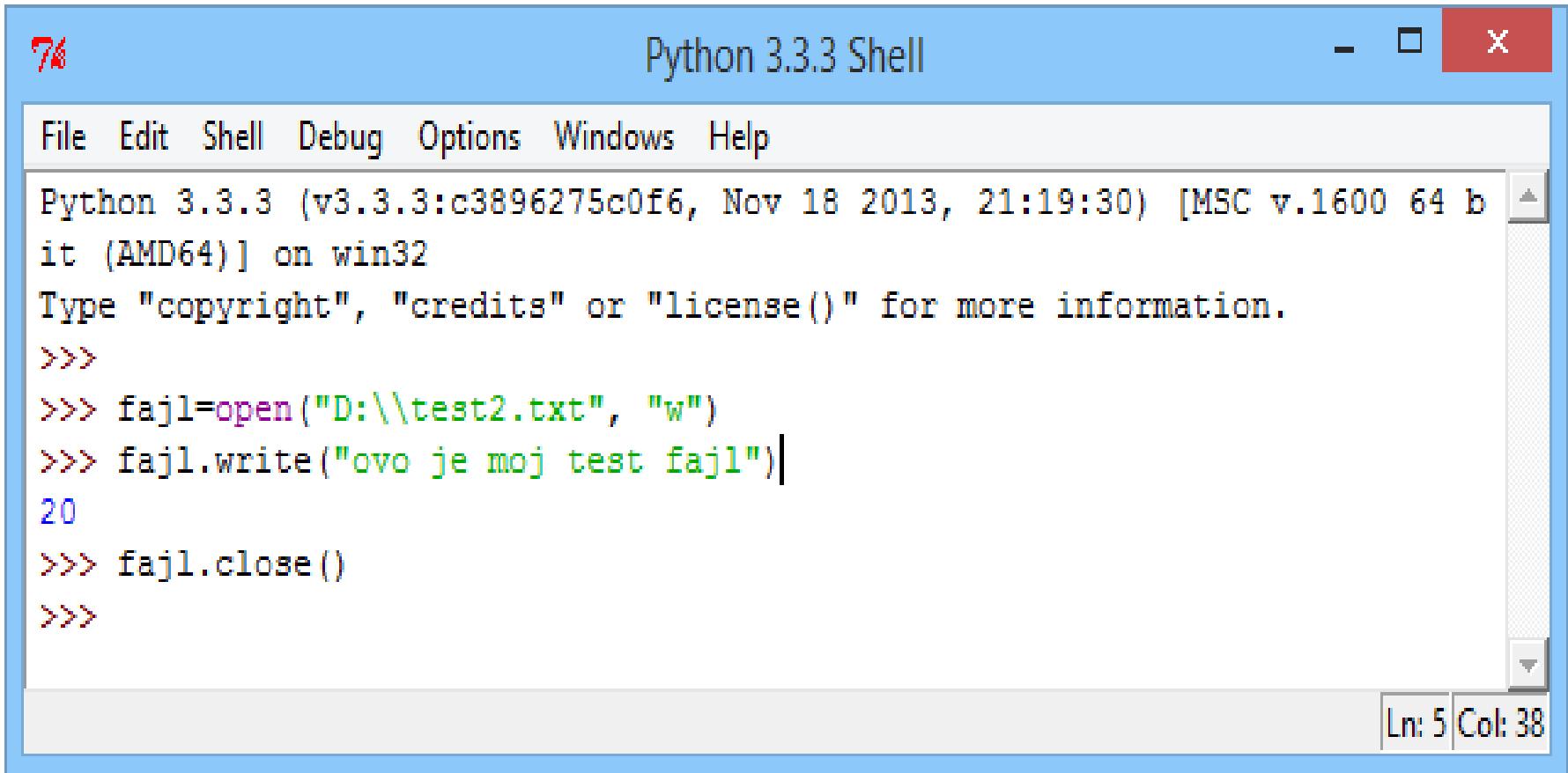
- Pajton poseduje ugrađenu funkciju open koja otvara fajl I učitava sadržaj tog fajla. Funkciji se, u obliku stringa, prosleđuje putanja do fajla kao i naziv fajla koji želimo da otvorimo.

# Rad sa datotekama

The screenshot shows a window titled "Python 3.3.3 Shell". The menu bar includes File, Edit, Shell, Debug, Options, Windows, and Help. The main area displays Python code and its output. The code reads a file named "test.txt" located at "D:\\test.txt" and prints its contents. The output shows the word "Zdravo svete".

```
76 Python 3.3.3 Shell - □ X
File Edit Shell Debug Options Windows Help
Python 3.3.3 (v3.3.3:c3896275c0f6, Nov 18 2013, 21:19:30) [MSC v.1600 64 bit (AM
D64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
>>>
>>>
>>> fajl=open("D:\\test.txt")
>>> tekst = fajl.read()
>>> print(tekst)
Zdravo svete
>>>
Ln: 10 Col: 4
```

# Rad sa datotekama



The screenshot shows a window titled "Python 3.3.3 Shell". The title bar includes standard window controls (minimize, maximize, close) and the window number "76". The menu bar contains "File", "Edit", "Shell", "Debug", "Options", "Windows", and "Help". The main area displays the Python interpreter's welcome message and a series of commands:

```
Python 3.3.3 (v3.3.3:c3896275c0f6, Nov 18 2013, 21:19:30) [MSC v.1600 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.

>>>
>>> fajl=open("D:\\test2.txt", "w")
>>> fajl.write("ovo je moj test fajl")
20
>>> fajl.close()
>>>
```

In the bottom right corner of the shell window, there is a status bar with "Ln: 5 Col: 38".

# Zadatak 1

- Napisati program koji u datoteku upisuje ulaz sa tastature dok se ne unese reč kraj

# Zadatak 2

- Napisati program koji će iz datoteke od odabralih reči odabrati jednu slučajnim izborom