

Χατζημήχος Θεόδωρος tampakrap@gentoo.org



django

```
def python_django(tutorial)
```



- Programming Language
 - Interpreted
 - High Level
 - Scripting
- Easy to learn
 - Perfect for beginners
- Coding in:
 - Python Shell
 - Quick way to test code
 - Python Scripts

Code goes here



- Programming Language
 - Interpreted
 - High Level
 - Scripting
- Easy to learn
 - Perfect for beginners
- Coding in:
 - Python Shell
 - Quick way to test code
 - Python Scripts

Code goes here



Data Structures

- Integers
 - Calculations
- Strings
- Lists
- Tuples
- Unicode
- Convert Types
- Dictionaries

```
>>> 5 + 5
10
>>> 2**3
8
>>> 7/-3
-3
>>> a = 1.5 + 3.5j
>>> type(a)
<type 'complex'>
>>> a = 'opensuse collaboration camp'
>>> print a[5:]
use collaboration camp
>>> languages = ['python', 'php', 'ruby']
>>> languages[2]
'ruby'
>>> languages.append('c++')
>>> languages
['python', 'php', 'ruby', 'c++']
>>> languages = tuple(languages)
>>> test = u'python'
```



- While
- If
- For
- Range
- Break / Continue

```
for n in range(2, 10):
    for x in range(2, n):
        if n % x == 0:
            print n, 'equals', x, '*', n/x
            break
        else:
            # loop fell through without
            finding a factor
            print n, 'is a prime number'
```

```
def fib(n):
    """Print a Fibonacci series up to
    n."""
    a, b = 0, 1
    while a < n:
        print a,
        a, b = b, a+b
```



- Functions
- Exceptions
- Modules
- Command line arguments

```
def ask_ok(prompt,
retries=4,complaint='Yes or no,
please!'):
    while True:
        ok = raw_input(prompt)
        if ok in ('y', 'ye', 'yes'):
            return True
        if ok in ('n', 'no', 'nop', 'nope'):
            return False
        retries = retries - 1
        if retries < 0:
            raise IOError('refusenik user')
        print complaint
```



- Python Qt Bindings
 - Really popular
 - Even in embedded GUI apps
- Example apps:
 - Application Icon
 - Quit Button

```
#!/usr/bin/python
```

```
# Application Icon
```

```
import sys  
from PyQt4 import QtGui
```

```
app = QtGui.QApplication(sys.argv)
```

```
widget = QtGui.QWidget()  
widget.resize(250, 150)  
widget.setWindowTitle('test')  
widget.show()
```

```
sys.exit(app.exec_())
```



- Web Framework
- MVC
 - - Models
 - - Views
 - - Controllers
- DRY
- Modular (Unix philosophy)
- Used in major open source projects' websites
- Separate webdev from webdesign work

Useful commands:

```
django-admin.py startproject  
'opensuse_camp'  
python manage.py startapp  
python manage.py syncdb  
python manage.py sqlall  
python manage.py runserver (optional:  
<ip> <port>)
```