

# Practical Python Programming

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Python is a general purpose, high-level programming language



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- ▶ Clean syntax
- ▶ Dynamically typed
- ▶ Easy to learn

# Start the interpreter

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1. Open a terminal

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2. `ipython`

# Optional first Python program

```
print 'Hello, world'
```

# Built-in types

- ▶ int, float
- ▶ str
- ▶ list
- ▶ tuple
- ▶ dictionary

demo



# List operations

- ▶ Basic functions
- ▶ List comprehensions

# Dictionaries

- Basic functions

# Changing the flow of control

- ▶ if, else, elif
- ▶ while
- ▶ for

# Whitespace sensitive

if block

```
if <condition>:  
    <statement 1>  
    <statement 2>  
    <statement 3>
```

Statements 1,2 and 3 are in the if block

# Defining a function

## Squaring a number

```
def square(x):  
    return x*x
```

# Iterating over lists

## Prints numbers

```
def numbers(x):  
    for i in range(0, x + 1):  
        print i ,
```

## Prints list elements

```
names = ['buzz', 'nemo', 'dash', 'remy']  
for i in names:  
    print i
```

# Text to HTML

1. Read file
2. Convert it into a list
3. Insert `<br>` as appropriate



# Web

1. Django
2. Flask
3. Twisted

# Code

- ▶ Read
- ▶ Write
- ▶ Execute



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