

Getting Started with Python

Installation and Basics

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<https://github.com/mcrmoe/Python-Lectures>

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What is Python?¹



¹Monty Python and the Holy Grail (1975)

Development Environment

- ▶ Python 3.4.4 - <https://www.python.org/downloads/>
- ▶ Pycharm Community - <https://www.jetbrains.com/pycharm/download/>

Installation of Pycharm - Linux

Java JRE/JDK 6+ is required for the installation of Pycharm

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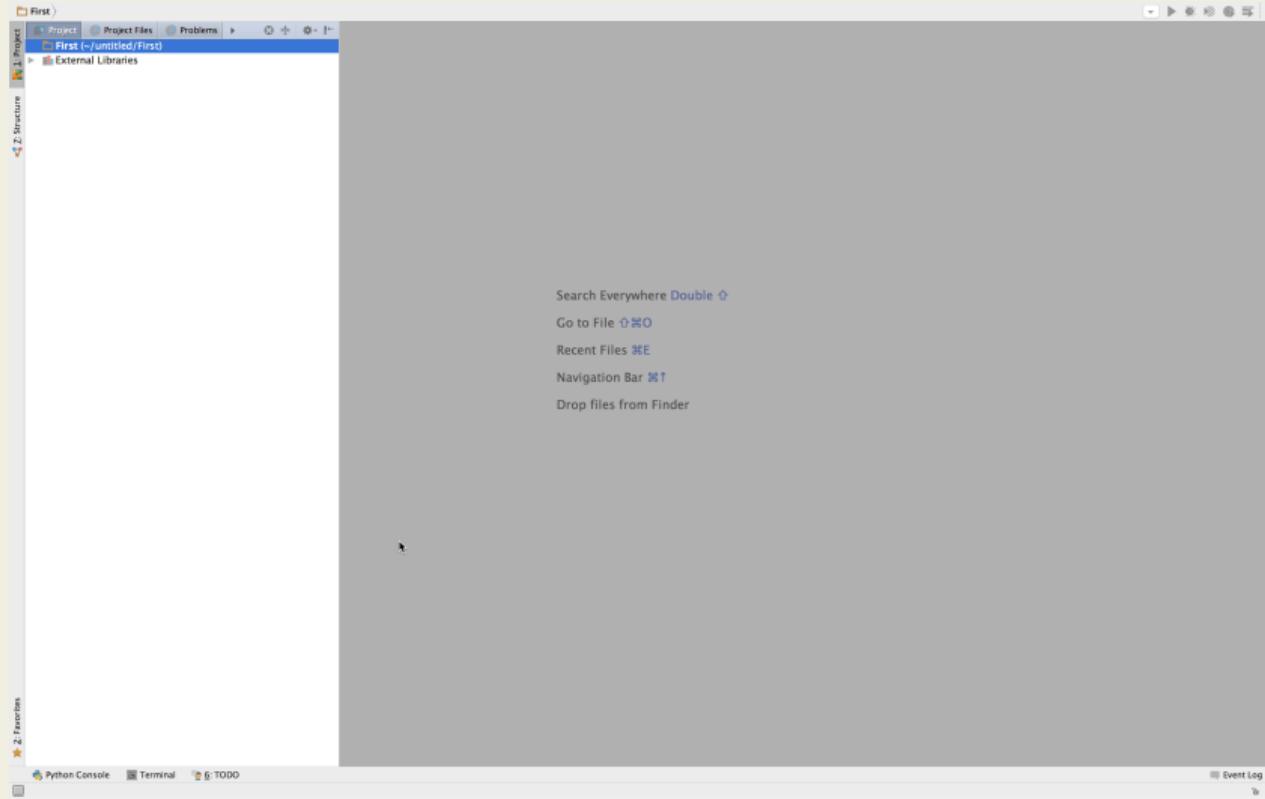
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```
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5. Create Desktop Icon/Shortcut

Getting Started with Pycharm

now what?



Getting Started with Pycharm

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1. Set project interpreter (python3.4)

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Pycharm keyboard shortcuts

https://resources.jetbrains.com/assets/products/pycharm/PyCharm_ReferenceCard.pdf

For Mac OSX

https://resources.jetbrains.com/assets/products/pycharm/PyCharm_ReferenceCard_mac.pdf

Let the fun begin!

Everything is an Object!!

Fundamental Principle # 2

a bit of philosophy

```
>>> import this
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- ▶ Beautiful is better than ugly.
- ▶ Simple is better than complex.
- ▶ Complex is better than complicated.
- ▶ If the implementation is hard to explain, it's a bad idea.
- ▶ If the implementation is easy to explain, it may be a good idea.

More Philosophy...

What is a computer program?

Getting Our Feet Wet

informal introduction with the interactive interpreter

Live demo to cover:

- ▶ numerical operations and math module
- ▶ strings
- ▶ lists and its operations, nested lists
- ▶ dictionary, tuple and set

List Methods²

summary

Method	Description
<code>list.append(x)</code>	add an item to the end of the list
<code>list.extend(L)</code>	extend the list by appending all the items in the given list
<code>list.insert(i, x)</code>	insert an item at a given position
<code>list.remove(x)</code>	remove the first item from the list whose value is x
<code>list.pop([i])</code>	remove the item at the given position in the list and return it, <code>list.pop()</code> removes the last item
<code>list.clear()</code>	removes all items from list
<code>list.index(x)</code>	return the index in the list of the first item whose value is x
<code>list.count(x)</code>	return the number of times x appears in the list
<code>list.sort()</code>	sort the items of the list in place
<code>list.reverse()</code>	reverse the elements of the list in place
<code>list.copy()</code>	return a shallow copy of the list

²<https://docs.python.org/3.4/tutorial/datastructures.html>