



# Introduction to debugging in Python (+ CodeFights!)

@lpmayos

PyLadiesBCN

February 25, 2015

# The ugly truth

## Why should we learn to debug?

The ugly truth

The available weapons

## Python debugging tools

Logging

Tracing

Debugging

## PDB and IPDB

Introduction

Useful commands

Examples

## Sources and references

## Let's practice!

Your code will break, sooner or later. As you develop it or years after, but it will break and somebody will have to fix it. Ouch!

How many of you ...?



# The available weapons

## Why should we learn to debug?

- The ugly truth
- The available weapons

## Python debugging tools

- Logging
- Tracing
- Debugging

## PDB and IPDB

- Introduction
- Useful commands
- Examples

## Sources and references

## Let's practice!

Fortunately, you will not have to face that problem barehanded. Python (and all languages) provides you with some useful weapons ready to use: loggers, tracers, monitoring tools, debuggers...

So please stop using print commands to try to find the errors ;)

```
1 ##
2 # @Input: positive integer
3 # @Output: equals to @Input if @Input is bigger
4 # than 12, and to 12 otherwise
5 ##
6 def returnTwelve(number):
7     while number < 12:
8         number = number + 1
9     return 12
```



# Logging

## Why should we learn to debug?

- The ugly truth
- The available weapons

## Python debugging tools

- Logging
- Tracing
- Debugging

## PDB and IPDB

- Introduction
- Useful commands
- Examples

## Sources and references

Let's practice!

Blablabla



# Tracing

## Why should we learn to debug?

- The ugly truth
- The available weapons

## Python debugging tools

- Logging
- Tracing
- Debugging

## PDB and IPDB

- Introduction
- Useful commands
- Examples

## Sources and references

Let's practice!

Blablabla



# Debugging

## Why should we learn to debug?

- The ugly truth
- The available weapons

## Python debugging tools

- Logging
- Tracing
- Debugging**

## PDB and IPDB

- Introduction
- Useful commands
- Examples

## Sources and references

Let's practice!

Blablabla



# Introduction

## Why should we learn to debug?

- The ugly truth
- The available weapons

## Python debugging tools

- Logging
- Tracing
- Debugging

## PDB and IPDB

- Introduction
- Useful commands
- Examples

## Sources and references

Let's practice!

Blablabla



# Commands

## Why should we learn to debug?

- The ugly truth
- The available weapons

## Python debugging tools

- Logging
- Tracing
- Debugging

## PDB and IPDB

- Introduction
- Useful commands
- Examples

## Sources and references

Let's practice!

Blablabla





# Examples

## Why should we learn to debug?

- The ugly truth
- The available weapons

## Python debugging tools

- Logging
- Tracing
- Debugging

## PDB and IPDB

- Introduction
- Useful commands
- Examples

## Sources and references

Let's practice!

Blablabla



# Sources and references

## Why should we learn to debug?

- The ugly truth
- The available weapons

## Python debugging tools

- Logging
- Tracing
- Debugging

## PDB and IPDB

- Introduction
- Useful commands
- Examples

## Sources and references

## Let's practice!

<http://blog.ionelmc.ro/2013/06/05/python-debugging-tools/>  
<https://docs.python.org/2/library/pdb.html>  
<https://pythonconquerstheuniverse.wordpress.com/2009/09/10/in-python/>



# Let's practice!

## Why should we learn to debug?

- The ugly truth
- The available weapons

## Python debugging tools

- Logging
- Tracing
- Debugging

## PDB and IPDB

- Introduction
- Useful commands
- Examples

## Sources and references

## Let's practice!

First some small exercises  
Then CodeFights!



Thank you :) Now you try!!

