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Introduction to Python (3.4)

Rob Miles - Rather Useful Seminar (not taken by Rob) :(

We shall discuss

- ❖ Introduction to Python

- ❖ Live demo of different features

- ❖ Why you should be interested in Python

- ❖ Best ways to get started in writing some Python code

Python? Isn't that a snake?

- Yes, it is a snake! But apparently it's also a programming language.

- It was conceived in the late 80's by a Computer Scientist known as Guido van Rossum as a successor to the ABC language.

- The name, contrary to popular belief, is *not* based off the snake, but due to Guido being a fan of Monty Python's Flying Circus.

Why should I write code in Python?

❖ There are a few reasons that people enjoy writing code in Python. Below are a few:

  ❖ It's a multi paradigm programming language (support for **object oriented** and **structured programming** are available out of the box, with others also available with a few tweaks).

  ❖ It is a very high-level language with support for lots of types and data structures that you would expect in a modern programming language.

  ❖ It has a modern programming syntactic style, with removal of braces in favour of indentation.

  ❖ It is **fully** multi platform, available on Windows, Mac OS X and Linux and it runs on multiple pieces of hardware (desktop, web, mobile, etc.)

A sweet desktop calculator

- Python is a pretty nifty desktop calculator

- Like most programming languages, it has pretty much all of the basic mathematical functions included

- Python allows you to write these functions very quickly, however.
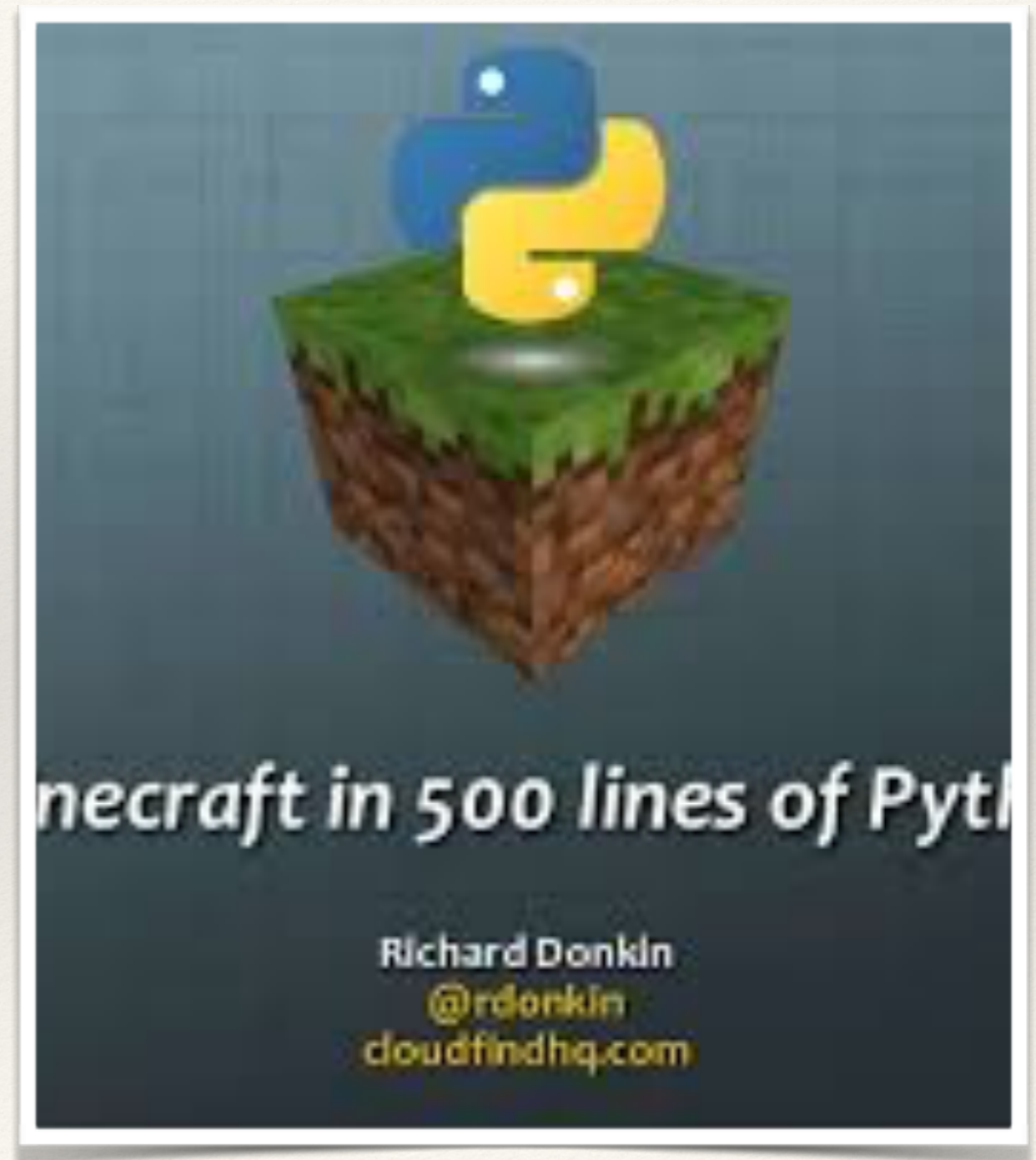
Lets put stuff together!

❖ Python, as you've probably already noticed, is *very* flexible.

❖ Lets have a look at lists.

Control Statements

- As expected in any modern high level programming language, you are able to run control statements.

- Your usual suspects are all present:

  - Ifs

  - Whiles

  - Fors

Python and its uses

- ❖ As mentioned before, it can be used in so many different ways
  - ❖ Rasberry Pi
  - ❖ Minecraft!
  - ❖ Web Development

necraft in 500 lines of Pyt[

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My experience with Python

- ❖ Worked as a Python developer over the summer for a startup company in London.

- ❖ First hand experience with Python in two contexts, writing APIs and web development.

Python is truly a modern language

❖ There are so many companies that are embracing Python, especially in the startup scene.

❖ Its syntax is inherently natural, and it attracts a lot of programmers.

❖ Its very easy to make complicated systems 'talk' to each other with Python via its sublime use of APIs and modules.

❖ If you can't make something work, there's probably a library out there that can - and it's essentially 'plug and play'.

❖ The documentation is well written.

Keep in mind…

❖ Python is a very dynamic and modern language, and, in order to achieve that - it's a little slow (https://jakevdp.github.io/blog/2014/05/09/why-python-is-slow/)

Learn it - http://codeacademy.com
Get it - http://python.org
Write it - https://www.jetbrains.com/pycharm/

Python Resources