Introduction to Python

Learn to Code 2018

ox.compsoc.net
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Oxford’s oldest and largest computer-related society and we welcome members from any disciple
We are celebrating our 40th anniversary at the end of Hilary with a formal dinner at St Anne’s
Facebook page will have announcements
Also thanks to the department for allowing us to host Learn to Code

“Oxford’s cheapest dining society” — this was the time we ordered over £400 of pizza for a talk
Membership is £5 for life
There is absolutely no need to join as a member for Learn to Code, but please feel free to

Logistics

- Every Thursday (weeks 2-7) at 7pm for about an hour
- Lecture Theatre A, overflow into Lecture Theatre B (same content in both)
- Lectures with regular breaks for exercises

Sauyon is running sessions on Lecture Theatre B

We might have to miss a week at some point — if this is the case we'll finish in week 8 instead

Thomas Denney

Lecture Theatre A

I will be taking all Lecture Theatre A sessions

Sauyon Lee

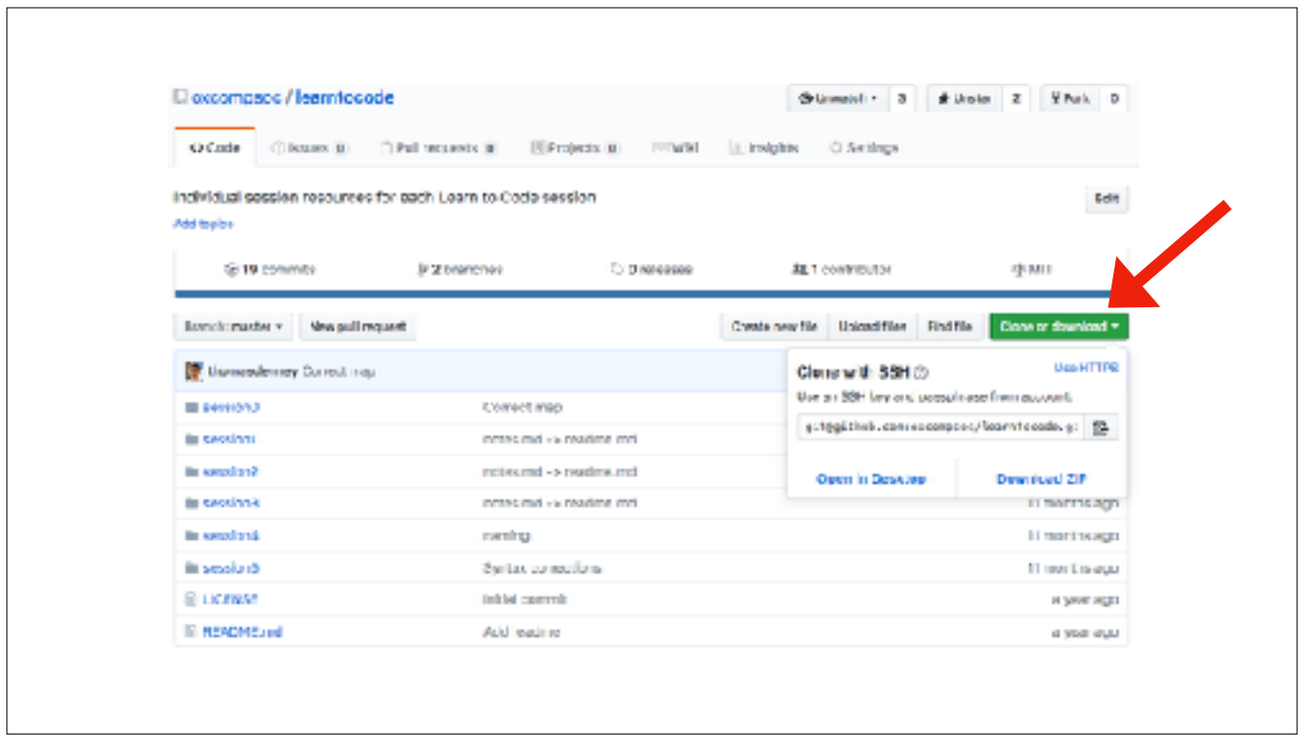
Lecture Theatre B

Sauyon will take all Lecture Theatre B sessions

github.com/oxcompsoc/learntocode

All the resources are available on GitHub

Some of the resources are still based on last year's course but they will be updated as we go along this year



Click “Clone or Download” and then “Download ZIP” if you want to keep a local copy of all the resources

Course outline

- Introduction to Python: “Hello, world!”, variables, logic, loops, and functions
- Python data structures: lists and maps
- Making a simple programming language
- Introduction to machine learning

I’m expecting that we’ll spend 2-3 sessions on introduction to Python
1-2 sessions on data structures
1 session on algorithms/implementing a programming language
1 session on machine learning — whether this session runs depends on how keen people are for it (quick poll of the room) and progress in earlier weeks, but we’re going to endeavour to cover it
This sort of adds up to the total number of sessions

We are going to be using a programming language called Python

It is one of the most popular programming languages globally and is used throughout industry (Google, YouTube, NASA)

Very beginner friendly compared to C, Java, etc

Used lots for machine learning

To use Python on your computer you need to have installed the Python tools from python.org

repl.it/languages/python3

If you have Python 3 installed, please don't worry about this slide
If you don't have Python installed, please go to this URL instead and you'll be able to follow along just as easily

IDLE

Back over to IDLE

```
print("Hello, world!")
```

```
print("Hello, world!")
```

```
print("Hello, world!")
```

```
print("Hello, world!")
```

```
print("Hello, world!")
```

```
name = value
```

```
if conditionIsTrue:
    statement(s)
```

```
if conditionIsTrue:
    statement(s)
else:
    statement(s)
```