

Tutorial 1

- ▶ Setting up
- ▶ Organising our work
- ▶ Getting started with scripts and notebooks

Setting up

Downloading and installing Anaconda and VS Code

- ▶ <https://www.anaconda.com/products/distribution>
- ▶ <https://code.visualstudio.com>
- ▶ I have extensive notes on the VLE Page for this section on this
 - ▶ And installing Git / GitHub
- ▶ Please try to set up a GitHub account and install Git
- ▶ I know this can be difficult and frustrating....

Organising Your Work

- ▶ Create a directory for this course
- ▶ Create a subdirectory for Part 1
- ▶ Open VSCode
- ▶ Create a new file in this directory
- ▶ Add some code
- ▶ Run it!

Scripts and Notebooks

Python Scripts

- ▶ We will create and develop Python Scripts in the Pycharm IDE
 - ▶ The IDE provides lots of help with the process!
 - ▶ Debugging etc...

Our first program

- ▶ Create a new file called 'hello.py'
- ▶ type in the following code:

```
In [2]: print ('Hello World')

Hello World
```

Running our script

- ▶ Find the 'Run' button
- ▶ Hit it!

```
In [1]: print ('Hello Exeter')

Hello Exeter
```

Debugging in VS Code

- ▶ The code debugger is your best friend on this course
- ▶ For your final assignment i will expect working code
- ▶ This is how we understand what our code is doing, and correct mistakes
- ▶ We will now work through a simple example

Running Notebooks

- ▶ Notebooks are great ways to build interactive coding 'workbooks'
- ▶ Mix code / graphics with text etc
- ▶ These can be developed / edited / debugged with VS Code
- ▶ Also with 'Jupyter Notebook' or 'JupyterLab' apps from within Anaconda Navigator
- ▶ These have far fewer code development facilities than VS Code
- ▶ Can mix and match both

Running Jupyter Notebooks

- ▶ Open Anaconda Navigator
- ▶ Run 'Jupyter Notebook'
- ▶ Navigate to your project directory and open a new file
- ▶ enter the code to print 'Hello Exeter'
- ▶ Press SHIFT-ENTER to run the code cell

```
In [3]: print ('hello exeter')

hello exeter
```