QLab VLE QuickStart
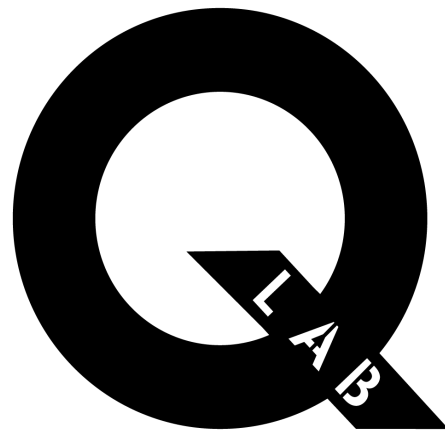
Welcome to the QuickStart guide for the QLab VLE.

This will take you through the install of **anaconda**, a high quality python virtual environment manager.

Then we'll get started on launching a **tutorial** notebook.
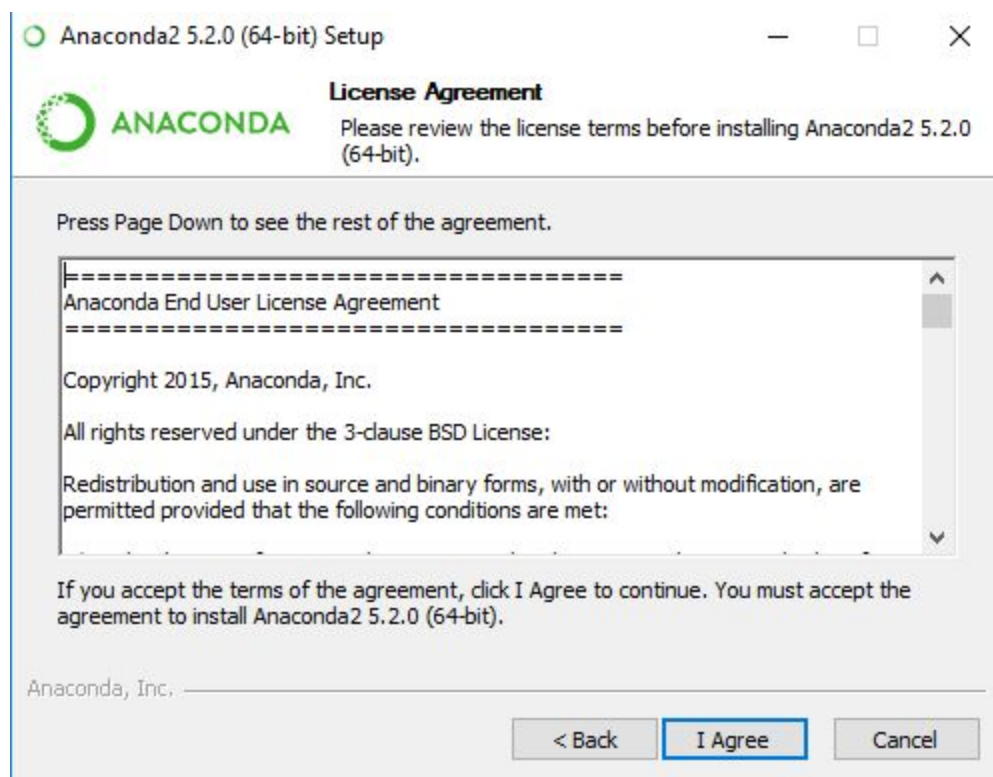
Installing Anaconda

Unlike most learning courses this experience will leave you **lasting resources** in the form of the notebooks you create and the Anaconda virtual environment manager.
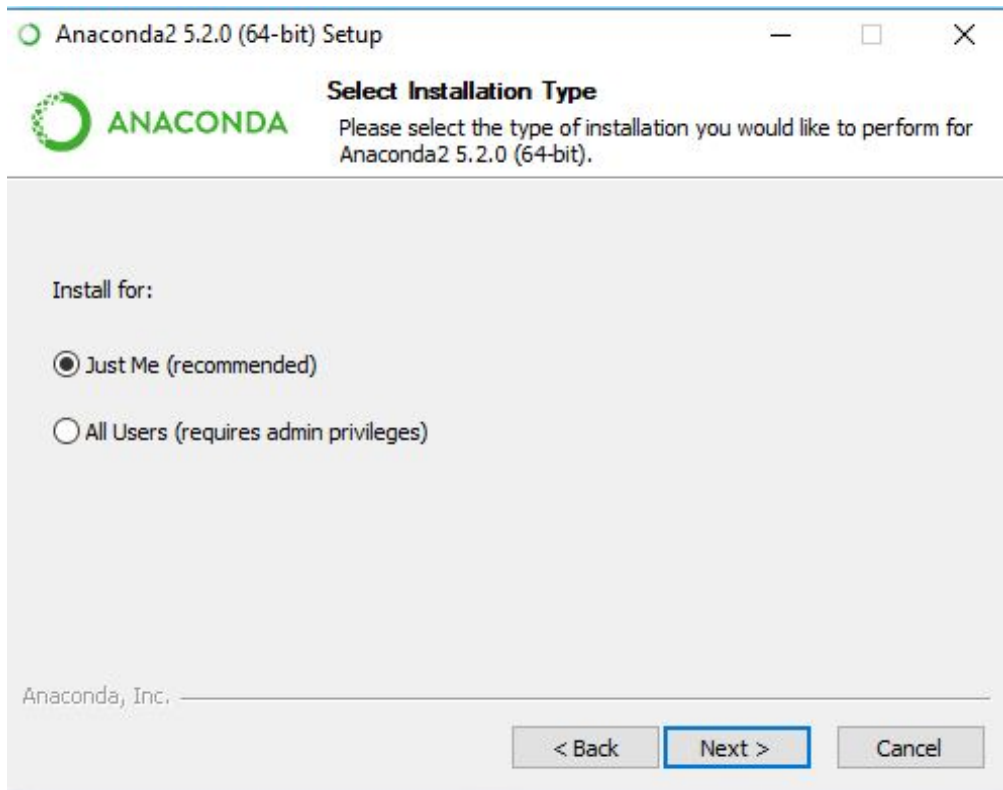
Anaconda will be extremely useful for you to use even after you've completed our courses as it will continue to support you with any python libraries you may need.
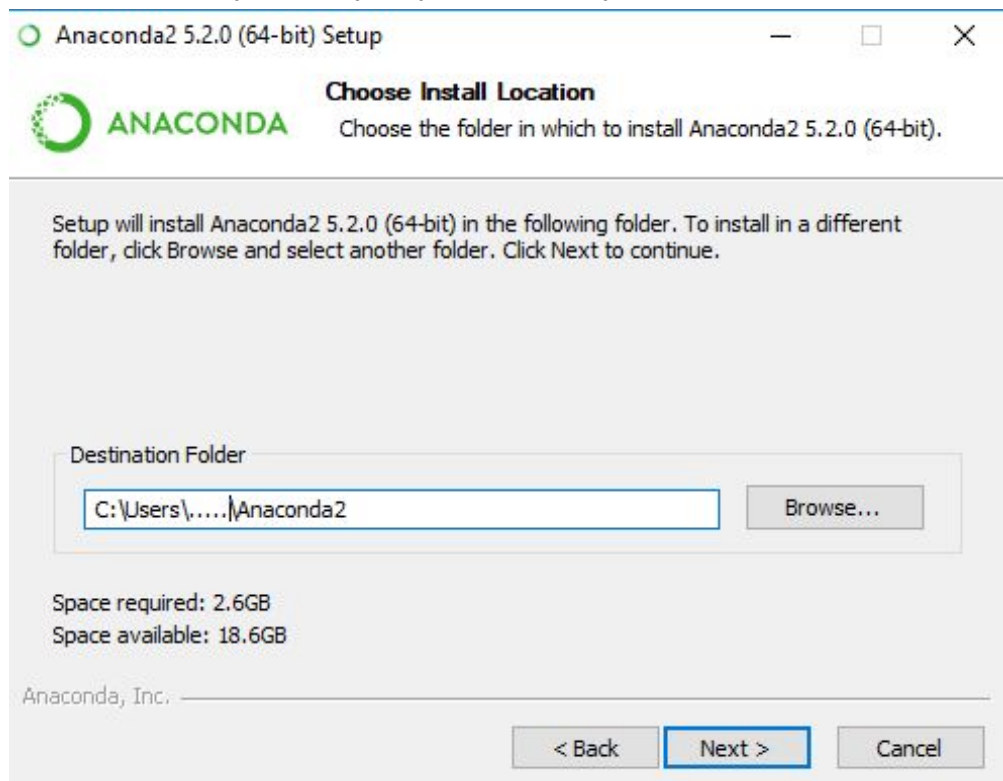
Let's get started;

1. Download Anaconda from the following link: https://www.anaconda.com/download. Select the **Python 3.6** version. Run this installer and follow default steps.

The following installation was completed on a Windows 64-bit machine:

Anaconda2 5.2.0 (64-bit) Setup

Welcome to Anaconda2 5.2.0 (64-bit) Setup

Setup will guide you through the installation of Anaconda2 5.2.0 (64-bit).

It is recommended that you close all other applications before starting Setup. This will make it possible to update relevant system files without having to reboot your computer.

Click Next to continue.

Next >   Cancel

Anaconda2 5.2.0 (64-bit) Setup

License Agreement

Please review the license terms before installing Anaconda2 5.2.0 (64-bit).

Press Page Down to see the rest of the agreement.

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Anaconda End User License Agreement
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Copyright 2015, Anaconda, Inc.

All rights reserved under the 3-clause BSD License:

Redistribution and use in source and binary forms, with or without modification, are
permitted provided that the following conditions are met:
```

If you accept the terms of the agreement, click I Agree to continue. You must accept the agreement to install Anaconda2 5.2.0 (64-bit).
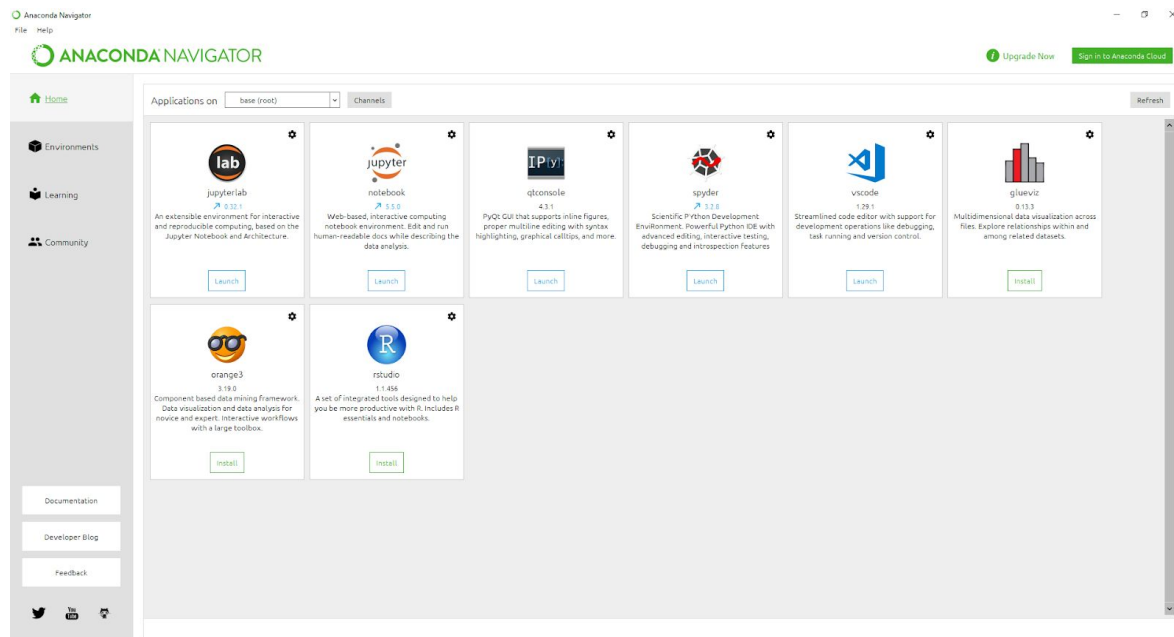
Anaconda, Inc.

< Back   I Agree   Cancel

Choose any directory on your machine you wish (default is fine).
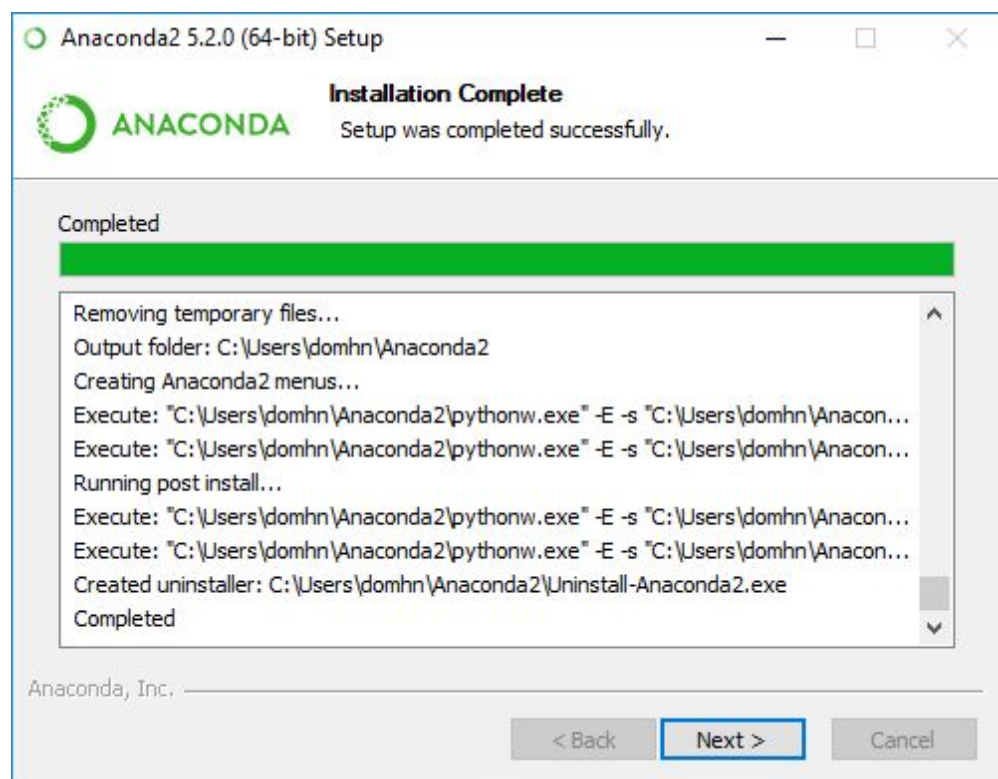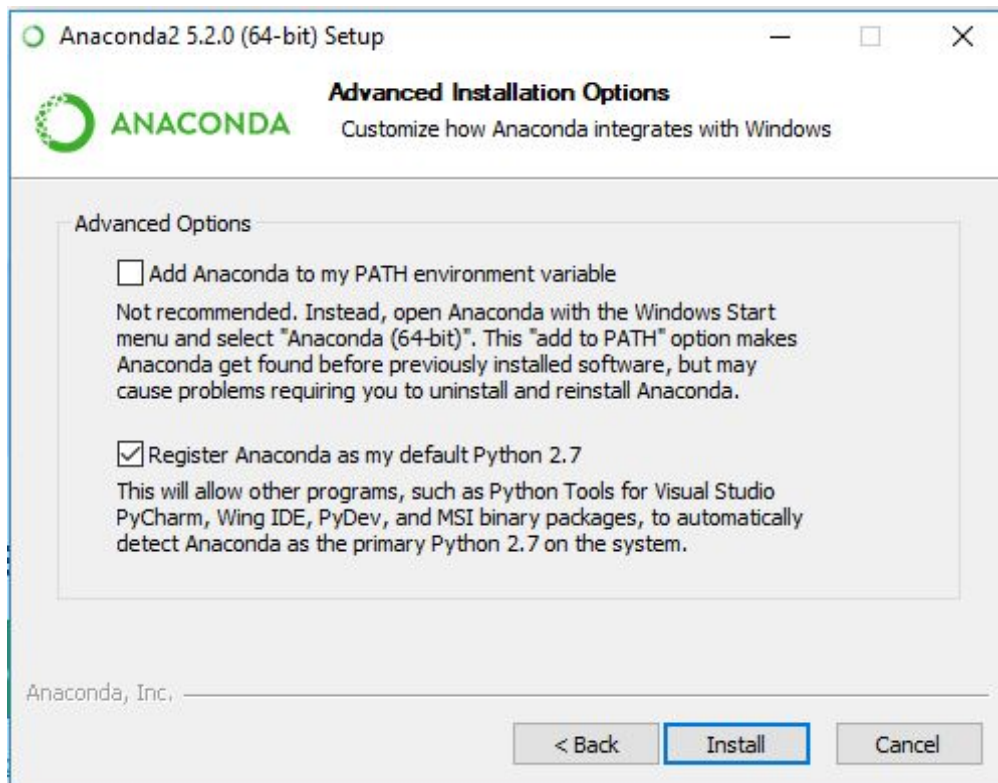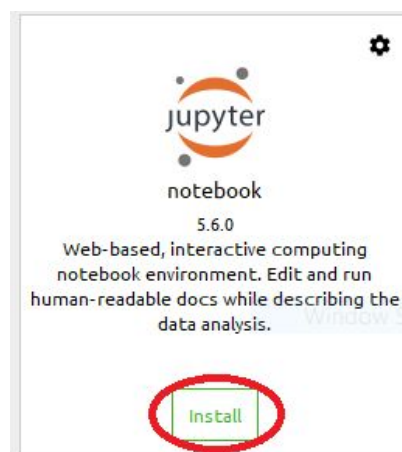
2. Launch **Anaconda Navigator** from your programs once installation is complete
3. Wait up to a minute or so and you should see a screen like below.

4. Next Install Jupyter notebook by pressing the green install button

5. Now launch **Jupyter Notebook** which should open in your browser like below

<u>Launching a tutorial notebook</u>
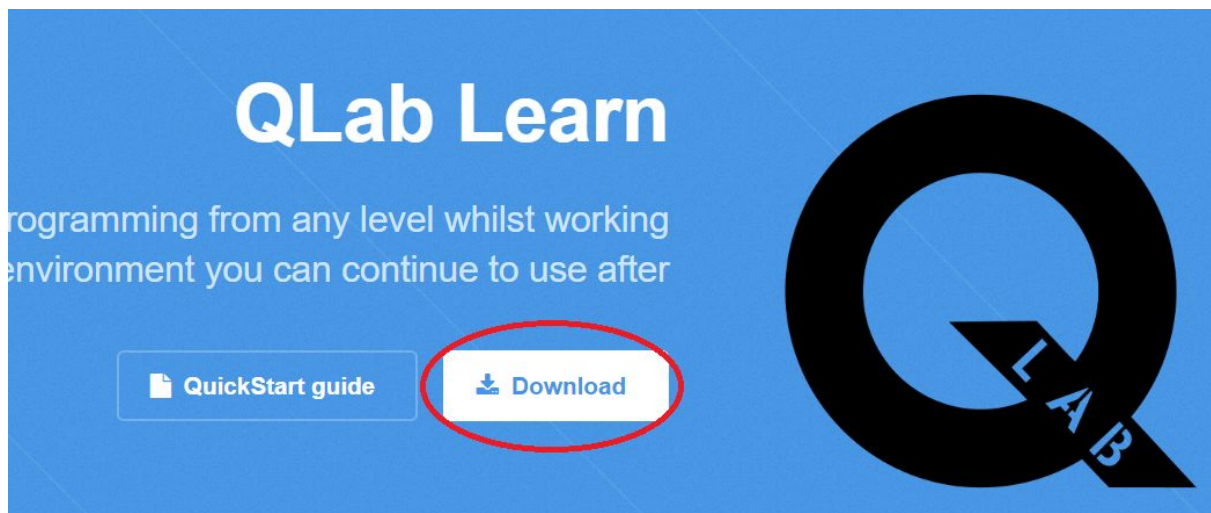
The guides you will be following come in the form of notebooks which run in jupyter through anaconda. These are widely used, although ours have been tailored to a custom learning experience.

1. Go to our website (https://makerspacequb.github.io/vle) and download the starting Python notebook

2. Move this to a directory of your choice (creating a folder solely for your notebooks is advised)

3. Next in your Jupyter tab in your browser navigate to the notebook you've just downloaded

Select items to perform actions on them.

☐ 0 ▾	📁 / Desktop / My Notebooks
☐ 📁 ..	
☐ 📓 LearnPython.ipynb	
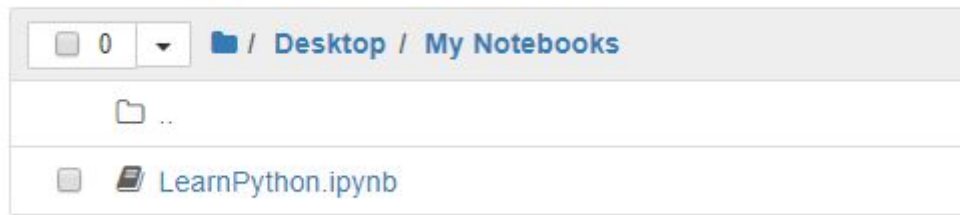
4. Click this to launch and your now ready to begin

How to use a notebook

Navigation bar key icons;

| 🖫 | ＋ | ✂ | 🗐 | 📋 | ↑ | ↓ | ▶ Run | ■ | C⟲ | **⟫** | Code ▾ | | ⌨ | **Run Marker** |

1. Before starting, restart and run all by pressing the ⟫ icon and then refresh the tab (F5)

2. Follow the tutorial and enter your code answer in the empty cells under each task

Task 1

Printing is an essential tool of any programming language because it allows us to see what's inside of our program whilst it's running. Without it finding out what the program has produced is impossible!

To do this we write a **command** (a line that tells the program to do an action) containing a keyword python understands. To output a word we use **'print()'** which is a python function (more about functions later) that will print out whatever is inside its brackets.

For example writing **print("abc")** would print out abc. Also note that these quotes are very important to tell python that abc is a word and not code!

Now try for yourself: Use the print() function to output 'Hello World'

In [ ]: _____

3. Click Run Marker in the navigation bar to test your current cell and get feedback or continue to next question if correct

Your'e now ready to begin!