

## Environment Setup

The open-source Anaconda Distribution is the easiest way to perform Python/R data science and machine learning on Linux, Windows, and Mac OS X. We are going to use it throughout our course. But first we're going to install it:

**Step 1:** Go to the official link (<https://www.anaconda.com/distribution/>) to download Anaconda Distribution. Anaconda Distribution include Python with either 2.7 or 3.7 version but we're going to download "Python 3.7 version". Next, you can select 64-Bit Graphical Installer or 32-Bit Graphical Installer based on your operating system (OS) architecture.

### Python 3.7 version

Download

64-Bit Graphical Installer (486 MB)  
32-Bit Graphical Installer (418 MB)

### Python 2.7 version

Download

64-Bit Graphical Installer (427 MB)  
32-Bit Graphical Installer (361 MB)

Figure 1: versions of the Anaconda Distribution

To know which version of OS you use, write click on "This PC" and then "Properties" and then you should see the "system type"

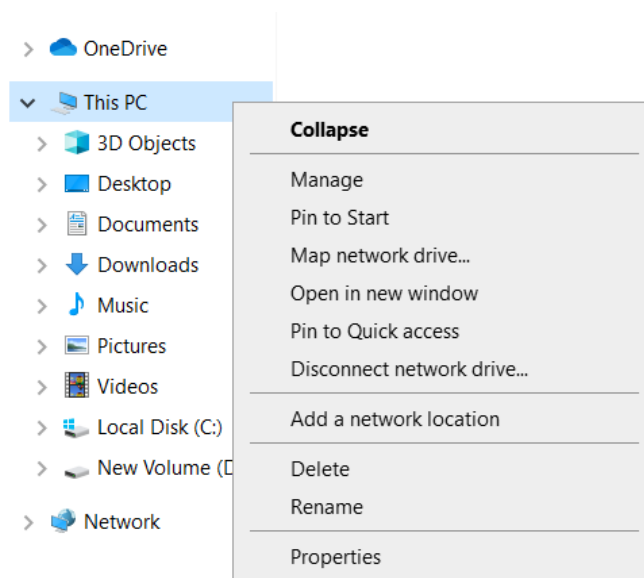


Figure 2: Determine the OS version step 1

System	
Processor:	Intel(R) Core(TM) i7-6700HQ CPU @ 2.60GHz 2.60 GHz
Installed memory (RAM):	16.0 GB (15.9 GB usable)
System type:	64-bit Operating System, x64-based processor
Pen and Touch:	No Pen or Touch Input is available for this Display

Figure 3: Determine the OS version step 2

**Step 2:** After Downloading Anaconda, just follow the default options by clicking “next” **except** on Advanced Options, select Add Anaconda to my PATH environment variable so the operating system can identify the Anaconda

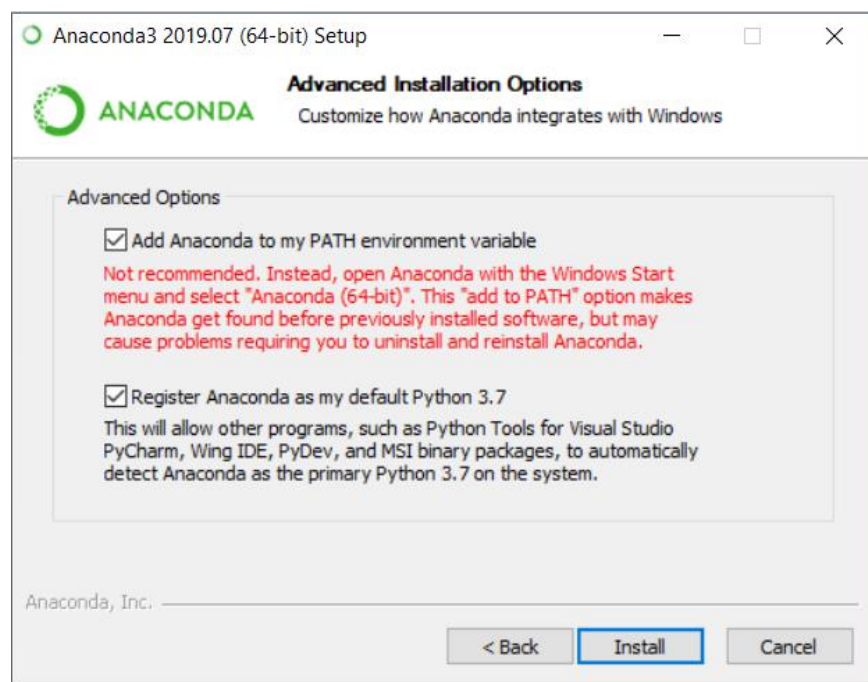


Figure 4: Setup Advanced Options

## Installing Packages

A module is a file consisting of Python code. A module can define functions, classes and variables. A module can also include runnable code. While a package is a collection of modules in directories that give a package hierarchy. We are going to need plenty of functions throughout the course from some packages. You can install packages either online or offline if the internet connection isn't available.

To install packages online you can use Conda package management system:

```
conda install package_name
```

or use Python package installer(PIP)

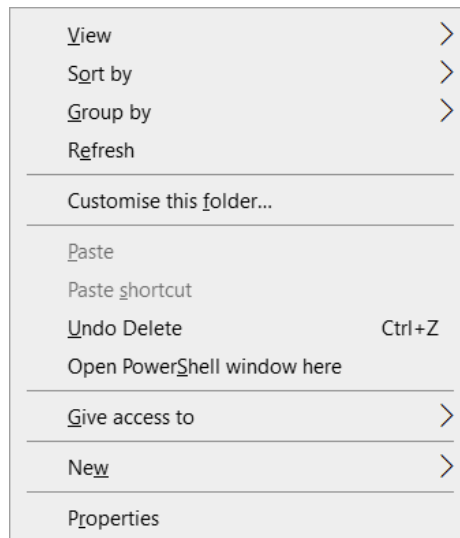
```
pip install package_name
```

to install packages offline use

```
conda install /path-to-package/package-filename.tar.bz2/
```

A better way to download the packages and their dependencies is by:

1. create new folder >> write a list of package in a text file requirements.txt that you want to install here, we have the package thinkx.
2. shift + right click >> “open PowerShell window here”



3. Type and run

```
pip download -r requirements.txt
```



#### 4. Install the downloaded packages

```
pip install --no-index --find-links ./ -r requirements.txt
```