# Windows Setup Guide

# **Overview**

Setup for Advanced Python for JPMC: TTPS4804 (rev. 1.4) on Windows

**Python** is open source (*i.e.*, free). Each student needs a computer (or remote account) with Python, some extra modules, an IDE (Visual Studio Code), and the student files installed.

NOTE

This setup guide should work in most environments, but is not guaranteed to work in all possible situations. Please call or email your contact with any further questions.

### Steps for installation

Setup for this class requires 4 separate installation steps:

- 1. Installing the lab files specific to this course
- 2. Installing **Python**
- 3. Installing one or more extra Python packages (modules) that are not part of the standard library
- 4. Installing and setting up Visual Studio Code, an IDE for Python

### Anaconda vs. python.org installation

There are two approaches you can use for the **Python** installation. You can install the **Anaconda Distribution** from **anaconda.com** *OR* install basic **Python**, and then add any needed extra packages.

The easiest approach is to install the **Anaconda Distribution**. This is a free (community) download that installs basic Python and many additional libraries in a single step.

**IMPORTANT** 

Follow either Step 2-A or Step 2-B, but not both.

### Student files

The student files contain examples, data, and answers to labs. They will be provided prior to class.

### **IDE/Editor**

We recommend **Visual Studio Code** as a Python IDE (Integrated Development Environment) and it is part of the installation specifications below. However, some programmers already have a favorite IDE or editor. We do not *require* students to use **Visual Studio Code**. If students are already using an alternate IDE, that will not cause a problem.

**NOTE** 

Links sometimes change outside our control. Be sure to download *Windows* versions of all specified software.

# **Detailed Setup**

## Step 1: Installing the student (lab) files

The lab file archives contain setup, example, data, and answer files for use in the labs.

The file name is pyjpmcadv\_1.4.zip

The zip file should be extracted to the user's desktop. It will create a folder named **pyipmcadv**.

The easy way to extract the files is just to double-click on the zip file, and then drag the extracted folder to the desktop.

When you extract the files, be sure the target folder is

C:\Users\USERNAME\Desktop

NOT

C:\users\USERNAME\Desktop\pyjpmcadv

The Extract menu defaults to the second form, which adds a confusing extra **pyjpmcadv** folder.

### 2-A: Installing Python from Anaconda

Download the latest Anaconda Distribution installer from https://www.anaconda.com/download/.
 Install, using default responses.

# 2-B: Installing Python from python.org

- 1. Download the latest Python 3 installer from http://www.python.org/download/ . Be sure to download the 64-bit Windows installer.
- 2. Once downloaded, double-click the .exe file to start installing.

Choose "Install Python 3.x for all users", and select the "Add python .exe to Path" option in the installer.

**TIP** 

If the installation seems to be hanging, check to see if there's a Windows dialog asking for permission to proceed.

3

# Step 3 Installing extra packages

This class may require some Python packages (libraries) that are not part of the standard Python installation. To be sure everything needed gets installed we provide a **requirements.txt** file that lists the extra packages.

If Ananconda was installed, open a new Anaconda prompt after basic Anaconda installation is complete by searching the main Windows menu for "Anaconda Prompt".

Use the pip command, which comes with Python, to install these additional packages. This step is to make sure all required packages get installed.

pip install -r requirements.txt

NOTE

For some classes, requirements.txt may be empty, or only contain a comment.

Some or all of the files in requirements.txt may already be installed, especially if you have installed the **Anaconda Distribution**.

#### Troubleshooting pip

If pip does not run from the command line, try this:

python -m pip install -r requirements.txt

## Step 4: Installing and configuring Visual Studio Code

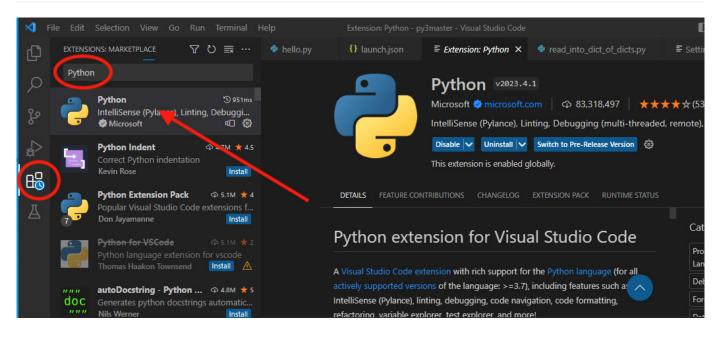
### Part A: Installing VSCode

Install Visual Studio code from

https://code.visualstudio.com/download

### Part B: Installing the Python extension

Once it is installed, add the Python extension from Microsoft by going to the Extensions tab and selecting the Microsoft Python extension.



This completes the installation. You are ready to go.

# Linux Setup Guide

# **Overview**

Setup for Advanced Python for JPMC: TTPS4804 (rev. 1.4) on Linux

**Python** is open source (*i.e.*, free). Each student needs a computer (or remote account) with Python, some extra modules, an IDE (Visual Studio Code), and the student files installed.

NOTE

This setup guide should work in most environments, but is not guaranteed to work in all possible situations. Please call or email your contact with any further questions.

### Steps for installation

Setup for this class requires 4 separate installation steps:

- 1. Installing the lab files specific to this course
- 2. Installing **Python**
- 3. Installing one or more extra Python packages (modules) that are not part of the standard library
- 4. Installing and setting up Visual Studio Code, an IDE for Python

### Anaconda vs. python.org installation

There are two approaches you can use for the **Python** installation. You can install the **Anaconda Distribution** from **anaconda.com** *OR* install basic **Python**, and then add any needed extra packages.

The easiest approach is to install the **Anaconda Distribution**. This is a free (community) download that installs basic Python and many additional libraries in a single step.

**IMPORTANT** 

Follow either Step 2-A or Step 2-B, but not both.

### Student files

The student files contain examples, data, and answers to labs. They will be provided prior to class.

### **IDE/Editor**

We recommend **Visual Studio Code** as a Python IDE (Integrated Development Environment) and it is part of the installation specifications below. However, some programmers already have a favorite IDE or editor. We do not *require* students to use **Visual Studio Code**. If students are already using an alternate IDE, that will not cause a problem.

NOTE

Links sometimes change outside our control. Be sure to download *Linux* versions of all specified software.

# **Detailed Setup**

### Step 1: Installing the student (lab) files

The lab file archives contain setup, example, data, and answer files for use in the labs.

The file name is pyjpmcadv\_1.4.tar.gz

Download or copy **pyjpmcadv\_1.4.tar.gz** to the user's desktop. Extract to the user's desktop. It will create a directory named **pyjpmcadv**.

Sample tar extraction command (execute as the user, not as root):

tar xzvf pyjpmcadv\_1.4.tar.gz

# 2-A: Installing Python from Anaconda

1. Download the latest **Anaconda Distribution** installer from https://www.anaconda.com/download/. Install, using default responses.

# 2-B: Installing Python from python.org

1. Python may already be installed. If not, install Python 3 from http://www.python.org/download/.

# Step 3 Installing extra packages

This class may require some Python packages (libraries) that are not part of the standard Python installation. To be sure everything needed gets installed we provide a **requirements.txt** file that lists the extra packages.

If Ananconda was installed, open a new terminal window (shell prompt) prompt after basic Anaconda installation is complete.

Use the pip command, which comes with Python, to install these additional packages. This step is to make sure all required packages get installed.

pip install -r requirements.txt

NOTE

For some classes, requirements.txt may be empty, or only contain a comment.

Some or all of the files in requirements.txt may already be installed, especially if you have installed the **Anaconda Distribution**.

#### Troubleshooting pip

If pip does not run from the command line, try this:

python -m pip install -r requirements.txt

## Step 4: Installing and configuring Visual Studio Code

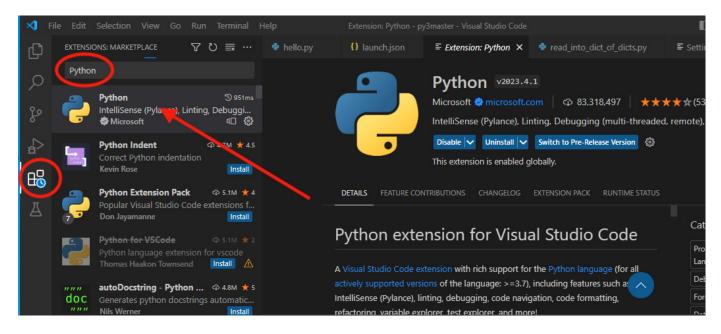
#### Part A: Installing VSCode

Install Visual Studio code from

https://code.visualstudio.com/download

### Part B: Installing the Python extension

Once it is installed, add the Python extension from Microsoft by going to the Extensions tab and selecting the Microsoft Python extension.



This completes the installation. You are ready to go.

# Mac Setup Guide

# **Overview**

Setup for Advanced Python for JPMC: TTPS4804 (rev. 1.4) on Mac

**Python** is open source (*i.e.*, free). Each student needs a computer (or remote account) with Python, some extra modules, an IDE (Visual Studio Code), and the student files installed.

NOTE

This setup guide should work in most environments, but is not guaranteed to work in all possible situations. Please call or email your contact with any further questions.

### Steps for installation

Setup for this class requires 4 separate installation steps:

- 1. Installing the lab files specific to this course
- 2. Installing **Python**
- 3. Installing one or more extra Python packages (modules) that are not part of the standard library
- 4. Installing and setting up Visual Studio Code, an IDE for Python

### Anaconda vs. python.org installation

There are two approaches you can use for the **Python** installation. You can install the **Anaconda Distribution** from **anaconda.com** *OR* install basic **Python**, and then add any needed extra packages.

The easiest approach is to install the **Anaconda Distribution**. This is a free (community) download that installs basic Python and many additional libraries in a single step.

**IMPORTANT** 

Follow either Step 2-A or Step 2-B, but not both.

### Student files

The student files contain examples, data, and answers to labs. They will be provided prior to class.

### **IDE/Editor**

We recommend **Visual Studio Code** as a Python IDE (Integrated Development Environment) and it is part of the installation specifications below. However, some programmers already have a favorite IDE or editor. We do not *require* students to use **Visual Studio Code**. If students are already using an alternate IDE, that will not cause a problem.

NOTE

Links sometimes change outside our control. Be sure to download *Mac* versions of all specified software.

# **Detailed Setup**

### Step 1: Installing the student (lab) files

The lab file archives contain setup, example, data, and answer files for use in the labs.

The file name is pyjpmcadv\_1.4.tar.gz

Download or copy **pyjpmcadv\_1.4.tar.gz** to the user's desktop. Extract to the user's desktop. It will create a directory named **pyjpmcadv**.

Sample tar extraction command (execute as the user, not as root):

tar xzvf pyjpmcadv\_1.4.tar.gz

# 2-A: Installing Python from Anaconda

1. Download the latest **Anaconda Distribution** installer from https://www.anaconda.com/download/. Install, using default responses.

# 2-B: Installing Python from python.org

1. Install Python 3 for OS X from http://www.python.org/download/. Choose the latest version.

# Step 3 Installing extra packages

This class may require some Python packages (libraries) that are not part of the standard Python installation. To be sure everything needed gets installed we provide a **requirements.txt** file that lists the extra packages.

If Ananconda was installed, open a new terminal window (shell prompt) prompt after basic Anaconda installation is complete.

Use the pip command, which comes with Python, to install these additional packages. This step is to make sure all required packages get installed.

pip install -r requirements.txt

NOTE

For some classes, requirements.txt may be empty, or only contain a comment.

Some or all of the files in requirements.txt may already be installed, especially if you have installed the **Anaconda Distribution**.

#### Troubleshooting pip

If pip does not run from the command line, try this:

python -m pip install -r requirements.txt

## Step 4: Installing and configuring Visual Studio Code

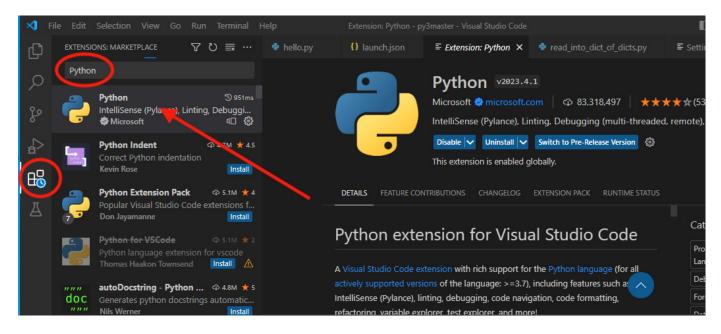
#### Part A: Installing VSCode

Install Visual Studio code from

https://code.visualstudio.com/download

### Part B: Installing the Python extension

Once it is installed, add the Python extension from Microsoft by going to the Extensions tab and selecting the Microsoft Python extension.



This completes the installation. You are ready to go.