

# Table of Contents

---

- [Anaconda Software](#)
  - [Why use Anaconda?](#)
  - [Installation Guide](#)
  - [Installation References](#)
  - [Installation Checkpoint](#)
- [Setting Up Environment, Dependencies and Other Software](#)
  - [Creating Environment](#)
  - [Setup Checkpoint](#)
  - [Setup References](#)
  - [Installing Other Software](#)
- [Schedule of Activities](#)
  - [Day 1](#)
  - [Day 2](#)
  - [Day 3](#)
- [Meeting Room Information](#)
- [Contact Information](#)

# Anaconda Software

---

Anaconda Individual Edition contains conda and Anaconda Navigator, as well as Python and hundreds of scientific packages. When you installed Anaconda, you installed all these too.

Conda works on your command line interface such as Anaconda Prompt on Windows and terminal on macOS and Linux.

Navigator is a desktop graphical user interface that allows you to launch applications and easily manage conda packages, environments, and channels without using command-line commands.

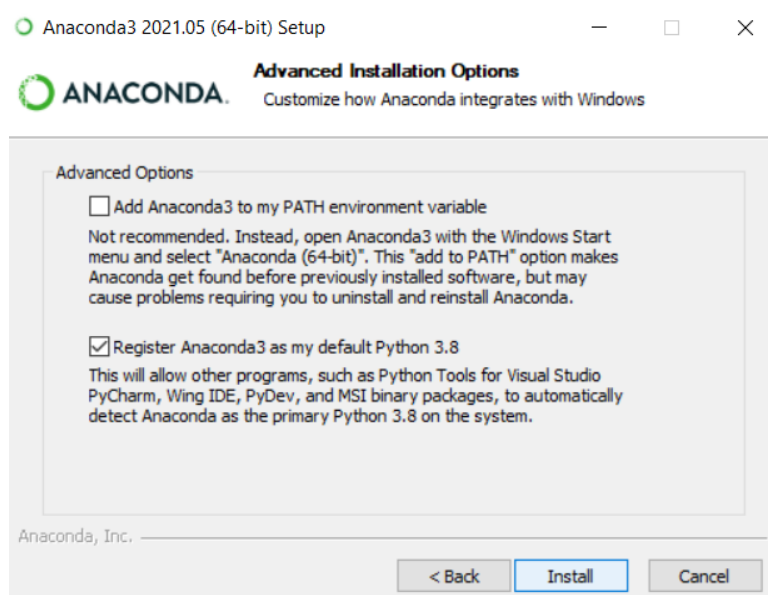
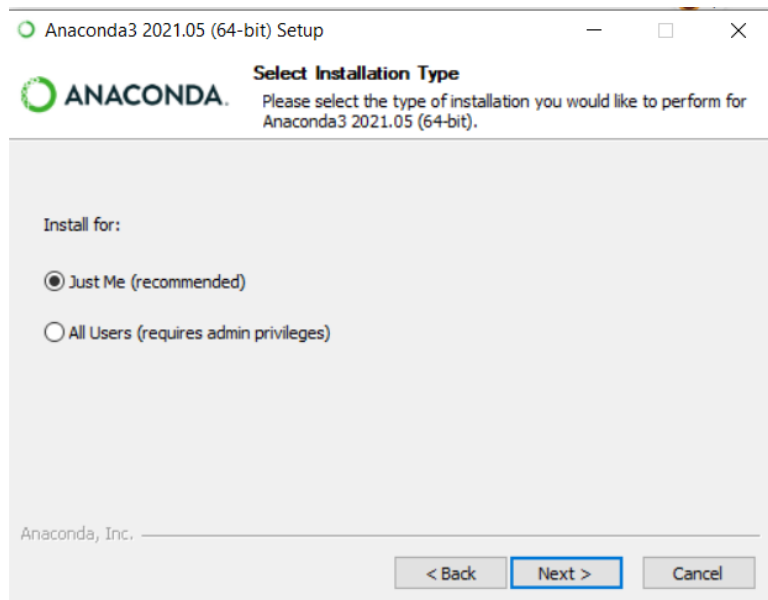
## Why use Anaconda?

It's a "batteries included" solution especially for scientific computing, data science, etc. It includes a ton of packages that the average Python dev will never touch, but that are indispensable to people who use Python based tools not necessarily developers. Additionally, it is platform agnostic since it is available to windows, mac and linux.

## Installation Guide

### **Step 1: Download and install the [anaconda software](#) for your corresponding device**

For ease of installation, you may select the following default options upon installation



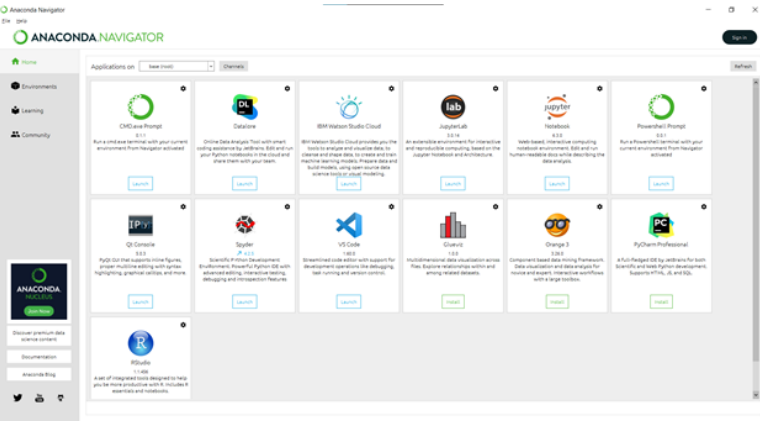
## Installation References

If you're having problems installing it out-of-the-box, you may look at the installation guide from their site.

- [Install for Windows](#)
- [Install for MacOS](#)
- [Install for Linux](#)

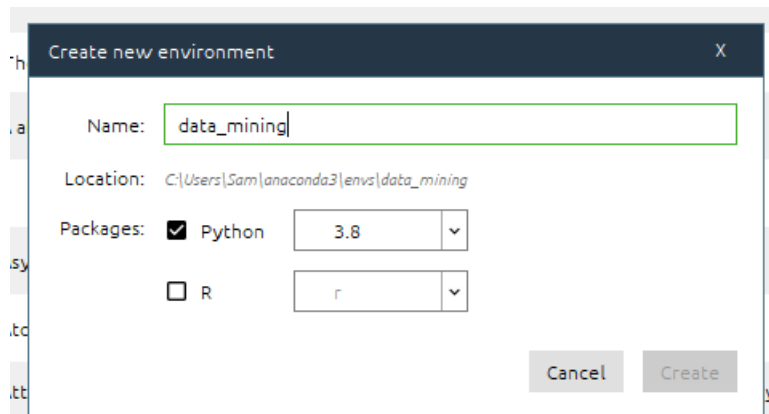
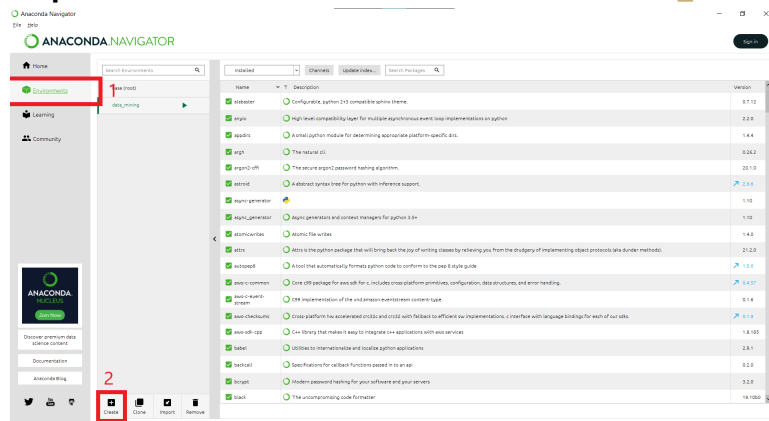
# Installation Checkpoint

To ensure that you were able to install, Anaconda Navigator must be available in your start menu / mac launchpad / apps



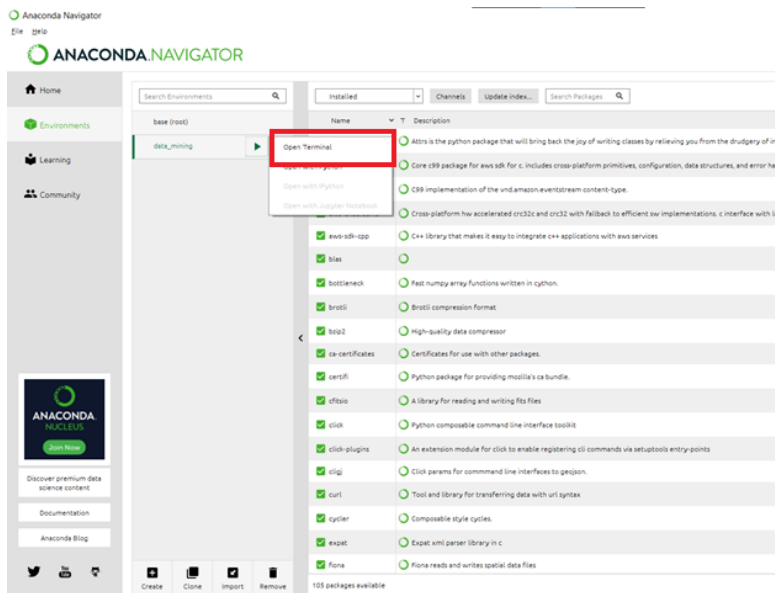
## Creating Environment

### Step 3: Create an environment and name it as **data\_mining**



### Step 3: Open the terminal and type in command below

```
(data_mining)$ conda install geopandas
```



```

C:\Windows\system32\cmd.exe - conda install geopandas
(data_mining) C:\Users\Sam>conda install geopandas

Solving environment: done

## Package Plan ##

  environment location: C:\Users\Sam\anaconda3\envs\data_mining

added / updated specs:
- geopandas

The following packages will be downloaded:

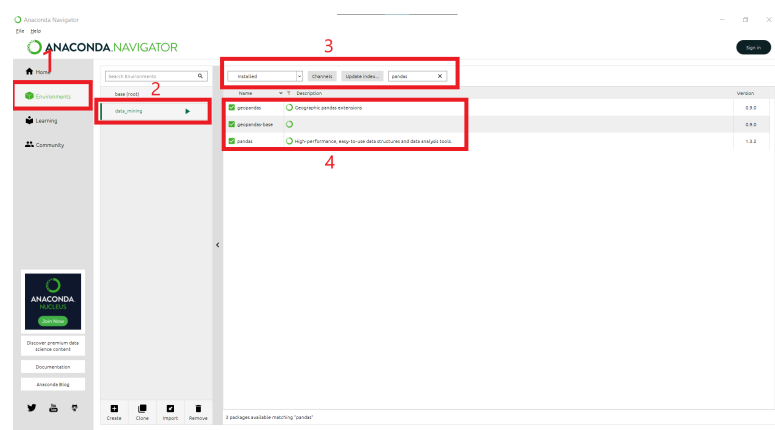
package                                     build
-----
attrs-21.2.0                               pyhd3eb1b0_0                46 KB
aws-c-common-0.4.57                         ha925a31_1                 147 KB
aws-c-event-stream-0.1.6                    hd77b12b_5                 26 KB
aws-checksums-0.1.9                         ha925a31_0                 50 KB
aws-sdk-cpp-1.8.185                         hd77b12b_0                 2.5 MB
cfitsio-3.470                               he774522_6                 512 KB
click-plugins-1.1.1                         pyhd3eb1b0_0                10 KB
cligj-0.7.2                                 py38haa95532_0             14 KB
curl-7.78.0                                 h86230a5_0                 132 KB
expat-2.4.1                                 h6c2663c_2                 201 KB
fiona-1.8.13.post1                           py38hd760492_0             619 KB
fonttools-4.25.0                             pyhd3eb1b0_0               632 KB
freexl-1.0.6                                h2bbff1b_0                 51 KB
gdal-3.0.2                                  py38hb978731_1            1.0 MB
geopandas-0.9.0                             py_1                       10 KB
geopandas-base-0.9.0                       py_1                       919 KB
geos-3.8.0                                  h33f27b4_0                 905 KB
geotiff-1.6.0                               h5770a2b_0                 128 KB
hdf4-4.2.13                                 h712560f_2                 1.3 MB
hdf5-1.10.6                                 h7ebc959_0                 7.9 MB
intel-openmp-2021.3.0                       haa95532_3372             2.0 MB
kealib-1.4.14                               hde4a422_0                 141 KB
krb5-1.19.2                                 h5b6d351_0                 697 KB
libcurl-7.78.0                              h86230a5_0                 294 KB
libgdal-3.0.2                              ha1b3edf_1                 7.0 MB
libnetcdf-4.6.1                             hf59b723_4                 501 KB
libpq-12.2                                 hb652d5d_1                 2.7 MB
libspatialite-4.3.0a                       h7ffb84d_0                 2.3 MB
libxml2-2.9.12                             h0ad7f3c_0                 1.5 MB
lz4-c-1.9.3                                h2bbff1b_1                 132 KB
m2w64-expat-2.1.1                           2                          160 KB
m2w64-gettext-0.19.7                       2                          4.2 MB
m2w64-libiconv-1.14                         6                          1.5 MB

```

## Setup Checkpoint

To ensure that you were able to install required python libraries, select the environment again and search **pandas** library in the textfield beside **Update Index**

You should be able to see both **pandas** and **geopandas** library in the list



# Setup References

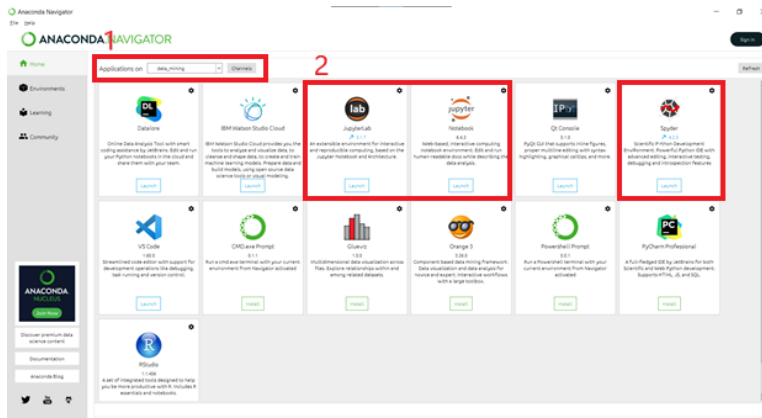
- [Install Geopandas for Python with Anaconda](#)



## Installing Other Software

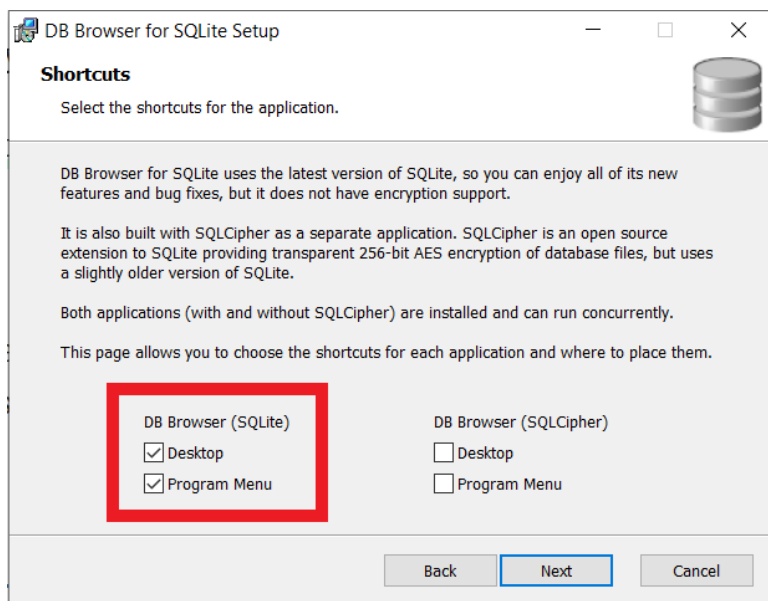
**Step 4: Go back to Home page in the sidebar, ensure that you are still using the `data_mining` environment and install the following software below if it's not yet installed**

- JupyterLab
- Notebook
- Spyder



**Step 5: Install DB Browser. Selecting the link shows the installation setup for different devices**

Ensure that you enable shortcuts to your menu or your desktop



# Schedule of Activities

---

## Day 1

- Setup, Intro to Python Programming
- DataTypes
- Conditional Statements

### **LUNCHBREAK**

- Functions
- Input, Output, Import
- File Handling

## Day 2

- Designing and Debugging
- Development Practices with Python

### **LUNCH BREAK**

- SQL Integration with Python
- Basic Pandas Functions

## Day 3

- Advance Pandas Functions
- Geospatial Fundamentals

### **LUNCH BREAK**

- Geopandas Library
- Recap and Summary

# Meeting Room Information

---

Topic: Data Mining Using Python Programming

Schedule:

- Sept 16, 2021, Thursday. 8am - 5pm
- Sept 17, 2021, Friday. 8am - 5pm
- Sept 18, 2021, Saturday. 8am - 5pm

<https://up-edu.zoom.us/j/84905432910>

Meeting ID: 849 0543 2910

Passcode: ISUmining

# Contact Information

---



Engr. Samantha Solis

[sam.solis@codematsing.com](mailto:sam.solis@codematsing.com)

*You may contact me if ever you have any concerns regarding the instructions mentioned*

Thank you and see you soon!