

SDK QuickStart Guide

By Savior Williams-Onuorah | APM, Extensibility

Prerequisites

1. Miniconda

<https://docs.conda.io/en/latest/miniconda.html>

Latest Miniconda Installer Links

Latest - Conda 4.12.0 Python 3.9.7 released February 15, 2022

Platform	Name	SHA256 hash
Windows	Miniconda3 Windows 64-bit	1acbc2e8277ddd54a5f724896c7edee112d068529588d944702966c667e7e9cc
	Miniconda3 Windows 32-bit	4fb64e6c9c28b88beab16994bfba4829110ea3145baa60bda5344174ab65d462

OR

Anaconda3

https://www.anaconda.com/products/distribution?gclid=CjwKCAjws--ZBhAXEiwAv-RNL9AMV5VXY-vtp9_rmwedHryWI8qg8Zg1my5u35_smoV-d8_OQh6ERoCop0QAvD_BwE

2. Python Version 3.8.5 (Has to be this version)

<https://www.python.org/downloads/release/python-385/>

Files

Version	Operating System	Description	MD5 Sum	File Size	GPG
Gzipped source tarball	Source release		e2f52bcf531c8cc94732c0b6ff933ff0	24149103	SIG
XZ compressed source tarball	Source release		35b5a3d0254c1c59be9736373d429db7	18019640	SIG
macOS 64-bit installer	macOS	for OS X 10.9 and later	2f8a736eeb307a27f1998cfd07f22440	30238024	SIG
Windows help file	Windows		3079d9cf19ac09d7b3e5eb3fb05581c4	8528031	SIG
Windows x86-64 embeddable zip file	Windows	for AMD64/EM64T/x64	73bd7aab047b81f83e473efb5d5652a0	8168581	SIG
Windows x86-64 executable installer	Windows	for AMD64/EM64T/x64	0ba2e9ca29b719da6e0b81f7f33f08f6	27864320	SIG
Windows x86-64 web-based installer	Windows	for AMD64/EM64T/x64	eeab52a08398a009c90189248ff43dac	1364128	SIG

3. Node 14 (tends to be one leading to fewer issues)

<https://nodejs.org/en/download/releases/>

(type 14 into search bar)

Version	LTS	Date	V8	npm	NODE_MODULE_VERSION[1]			
14								
Node.js 16.14.2	Gallium	2022-03-17	9.4.146.24	8.5.0	93	Downloads	Changelog	Docs
Node.js 16.14.1	Gallium	2022-03-16	9.4.146.24	8.5.0	93	Downloads	Changelog	Docs
Node.js 16.14.0	Gallium	2022-02-08	9.4.146.24	8.3.1	93	Downloads	Changelog	Docs
Node.js 15.14.0		2021-04-06	8.6.395.17	7.7.6	88	Downloads	Changelog	Docs
Node.js 15.3.0		2020-11-24	8.6.395.17	7.0.14	88	Downloads	Changelog	Docs
Node.js 14.20.1	Fermium	2022-09-23	8.4.371.23	6.14.17	83	Downloads	Changelog	Docs
Node.js 14.20.0	Fermium	2022-07-07	8.4.371.23	6.14.17	83	Downloads	Changelog	Docs
Node.js 14.19.3	Fermium	2022-05-17	8.4.371.23	6.14.17	83	Downloads	Changelog	Docs
Node.js 14.19.2	Fermium	2022-05-04	8.4.371.23	6.14.17	83	Downloads	Changelog	Docs
Node.js 14.19.1	Fermium	2022-03-17	8.4.371.23	6.14.16	83	Downloads	Changelog	Docs

Alternatively

Once you have a conda environment you can follow the code below to specify what version of python and node you want. Code below.

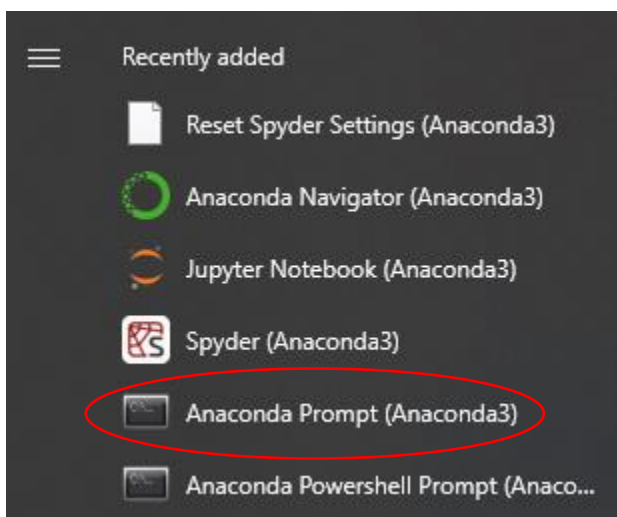
4. Git

<https://git-scm.com/downloads>

Instructions

Once **ALL** of the correct prerequisites have been downloaded you can test, they are the correct version.

Open your conda command prompt



Anaconda Prompt (Anaconda3)

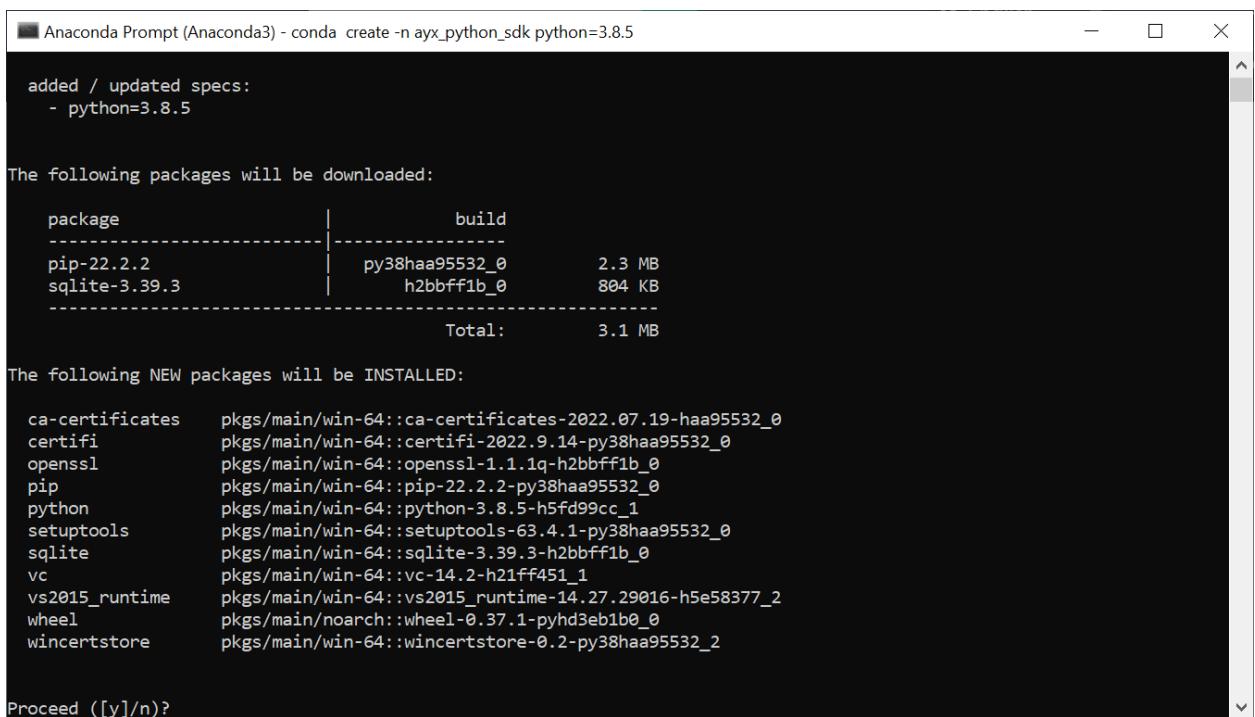
```
(base) C:\Users\savior.williamsonuor>
```

First you must create an environment

```
conda create -n ayx_python_sdk python=3.8.5 nodejs=14
```

The “ayx_python_sdk” part of the code is just the name of your environment so you can call it anything.

Once the environment is created you can activate it



```
Anaconda Prompt (Anaconda3) - conda create -n ayx_python_sdk python=3.8.5
added / updated specs:
- python=3.8.5

The following packages will be downloaded:

package | build | size
-----|-----|-----
pip-22.2.2 | py38haa95532_0 | 2.3 MB
sqlite-3.39.3 | h2bbff1b_0 | 804 KB
-----|-----|-----
Total: | | 3.1 MB

The following NEW packages will be INSTALLED:

ca-certificates pkgs/main/win-64::ca-certificates-2022.07.19-haa95532_0
certifi pkgs/main/win-64::certifi-2022.9.14-py38haa95532_0
openssl pkgs/main/win-64::openssl-1.1.1q-h2bbff1b_0
pip pkgs/main/win-64::pip-22.2.2-py38haa95532_0
python pkgs/main/win-64::python-3.8.5-h5fd99cc_1
setuptools pkgs/main/win-64::setuptools-63.4.1-py38haa95532_0
sqlite pkgs/main/win-64::sqlite-3.39.3-h2bbff1b_0
vc pkgs/main/win-64::vc-14.2-h21ff451_1
vs2015_runtime pkgs/main/win-64::vs2015_runtime-14.27.29016-h5e58377_2
wheel pkgs/main/noarch::wheel-0.37.1-pyhd3eb1b0_0
wincertstore pkgs/main/win-64::wincertstore-0.2-py38haa95532_2

Proceed ([y]/n)?
```

Type y for yes

Next activate with this command

```
conda activate ayx_python_sdk
```

You will see the cli is now in that environment you created

Anaconda Prompt (Anaconda3)

```
(base) C:\Users\savior.williamsonuor>conda activate ayx_python_sdk  
(ayx_python_sdk) C:\Users\savior.williamsonuor>
```

Now you can check you have the correct versions of everything before you move ahead

Anaconda Prompt (Anaconda3)

```
(ayx_python_sdk) C:\Users\savior.williamsonuor>python --version  
Python 3.8.5  
  
(ayx_python_sdk) C:\Users\savior.williamsonuor>node --version  
v14.20.1  
  
(ayx_python_sdk) C:\Users\savior.williamsonuor>git --version  
git version 2.37.3.windows.1
```

Your versions should match up to this.

If all above is correct, you should be good to go ahead with the install.

```
pip install ayx-plugin-cli
```

```
pip install ayx-python-sdk
```

When these two are installed then you can create the workspace. It is recommended you create and navigate to another folder to do this work. In the command line you can type:

```
mkdir demo
```

This will create a folder called “demo”. You can change the name of the folder to whatever you want by swapping the “demo” in the command. **Avoid using spaces**. Then use this code to navigate to that folder:

```
cd demo
```

(or whatever you named the folder)

```
Anaconda Prompt (Anaconda3)

(ayx_python_sdk) C:\Users\savior.williamsonuor>mkdir demo

(ayx_python_sdk) C:\Users\savior.williamsonuor>cd demo

(ayx_python_sdk) C:\Users\savior.williamsonuor\demo>
```

Now you are in the folder, you can create the workspace and plugin with the following commands:

```
ayx_plugin_cli sdk-workspace-init
```

```
ayx_plugin_cli create-ayx-plugin
```

```
npm

(ayx_python_sdk) C:\Users\savior.williamsonuor\demo>ayx_plugin_cli sdk-workspace-init
Package Name: DemoPackage
Tool Category [Python SDK Examples]: Python SDK Examples
Description []: Tool for Demo
Author []: Savior
Company []: Alteryx
Backend Language (python): python
```

```
(ayx_python_sdk) C:\Users\savior.williamsonuor\demo>ayx_plugin_cli create-ayx-plugin
Tool Name: DemoTool
Tool Type (input, multiple-inputs, multiple-outputs, optional, output, single-input-single-output, multi-connection-input-anchor) [single-input-single-output]: single-input-single-output
Description []: Demo tool
Tool Version [1.0]: 1.0
```

You can put your own information in the series of prompts. After that you should have a workspace made with different files to access and customize your tools!

Savior Williams-O... > demo		Search demo	
Name	Date modified	Type	
.ayx_cli.cache	10/4/2022 3:34 PM	File folder	
backend	10/4/2022 3:33 PM	File folder	
configuration	10/4/2022 3:34 PM	File folder	
DcmSchemas	10/4/2022 3:34 PM	File folder	
ui	10/4/2022 3:33 PM	File folder	
.gitignore	10/4/2022 3:33 PM	Text Document	
ayx_workspace.json	10/4/2022 3:33 PM	JSON File	
README.md	10/4/2022 3:33 PM	MD File	

Troubleshooting

Typical issues people run into:

- Make sure first and foremost all correct prerequisites and versions of them are installed before trying to install anything.
- Avoid using spaces in titles or folder names as this sometimes causes issues.
- If you want to use a folder further down your directory and the path includes spaces, it is recommended that you build the workspace higher up and then move the folder later on.
- Working in a conda environment produces the best results.