SUPERSET DEPLOYMENT INSTRUCTIONS – WINDOWS

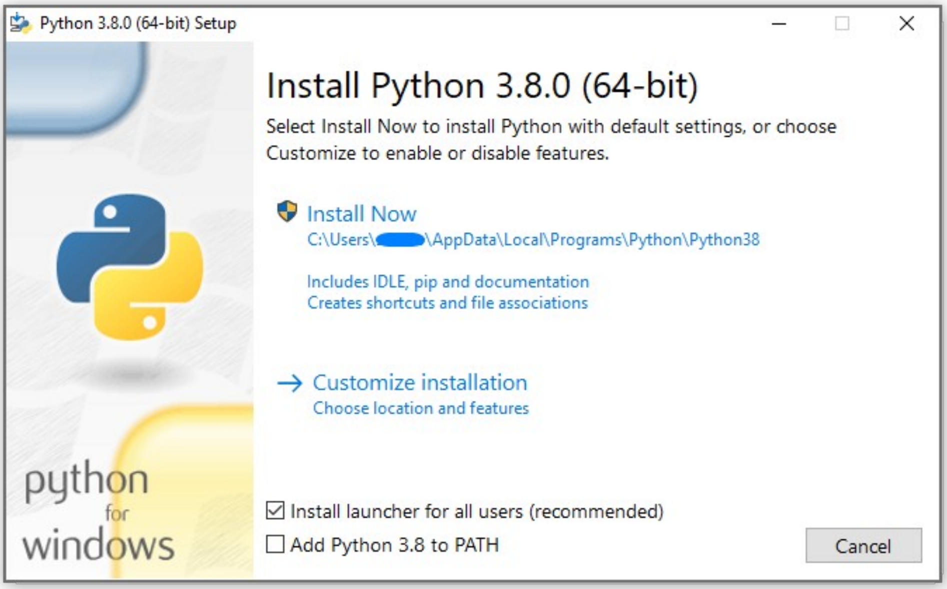
STEP 1: PYTHON INSTALLATION

* Python 3.8 should be installed initially. Download python3.8 (preferred 3..8.10) exe file from the official website. Added link in below and this may change based on their site maintanence

link : **https://www.python.org/downloads/release/python-3810/**

* double tap to click install and check **add python 3.8 add to path and** click **Install Now.** Now click install for all users and continue steps further.

* Note down the **path of installing** while installing. This path should be used during the environment variable setup



Install Python 3.8.0 (64-bit)

Select Install Now to install Python with default settings, or choose Customize to enable or disable features.

C:\Users\[redacted]\AppData\Local\Programs\Python\Python38

Includes IDLE, pip and documentation
Creates shortcuts and file associations

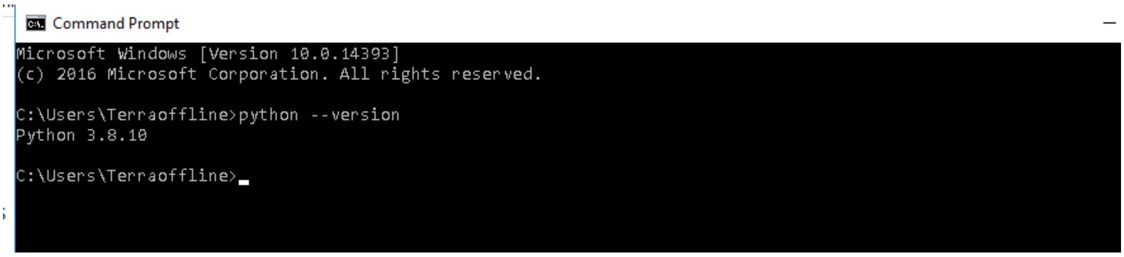
Choose location and features

☑ Install launcher for all users (recommended)

☐ Add Python 3.8 to PATH

* To check whether it is installed or not, open command prompt and type below to validate

~$ **python3 –version**



```
Microsoft Windows [Version 10.0.14393]
(c) 2016 Microsoft Corporation. All rights reserved.

C:\Users\Terraoffline>python --version
Python 3.8.10

C:\Users\Terraoffline>_
```

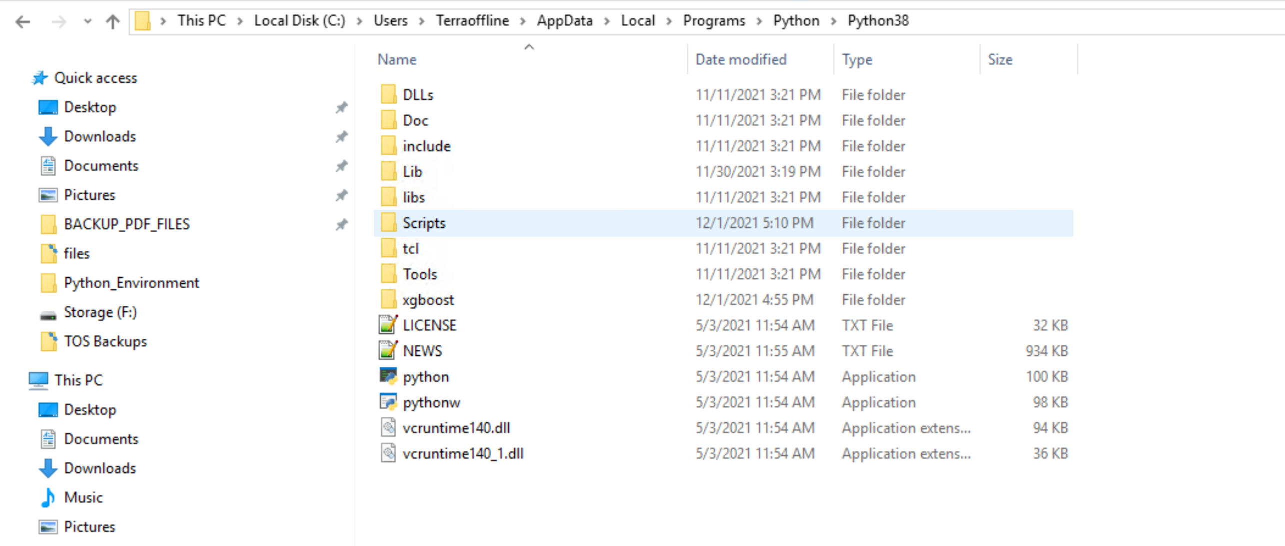
* If you get **errors**, try adding path’s manually to windows environment variables. For this you’ve to find the python installation path in C drive.

Go to --> mycomputer -right click --> properties --> advanced system settings --> environment variables --> system variables

SUPERSET DEPLOYMENT INSTRUCTIONS – WINDOWS

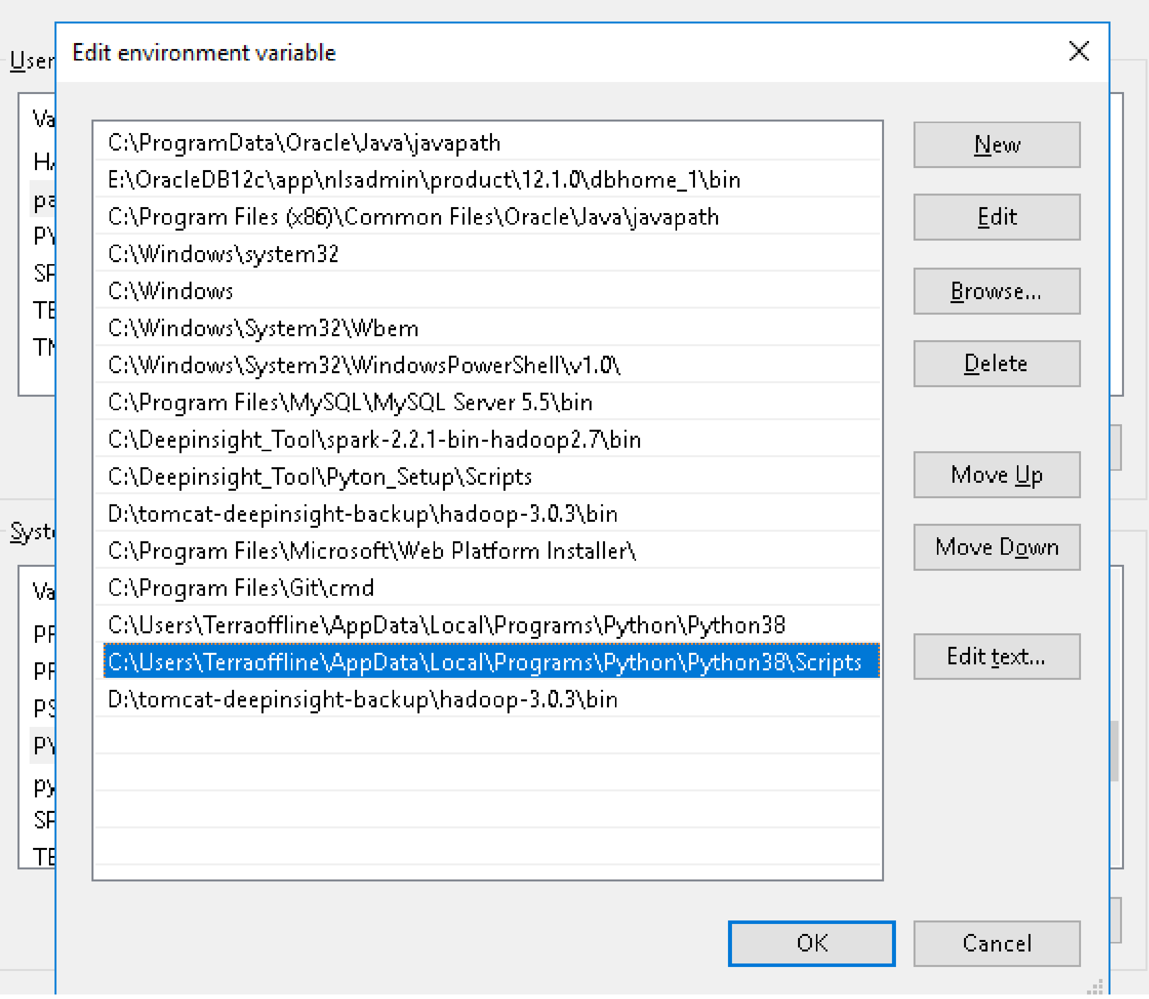
1) In system variables click on **path** and add the path you've installed python & Scripts folder

ex : C:\Users\Terraoffline\AppData\Local\Programs\Python\Python38
C:\Users\Terraoffline\AppData\Local\Programs\Python\Python38\Scripts



This PC › Local Disk (C:) › Users › Terraoffline › AppData › Local › Programs › Python › Python38

Name	Date modified	Type	Size
DLLs	11/11/2021 3:21 PM	File folder	
Doc	11/11/2021 3:21 PM	File folder	
include	11/11/2021 3:21 PM	File folder	
Lib	11/30/2021 3:19 PM	File folder	
libs	11/11/2021 3:21 PM	File folder	
Scripts	12/1/2021 5:10 PM	File folder	
tcl	11/11/2021 3:21 PM	File folder	
Tools	11/11/2021 3:21 PM	File folder	
xgboost	12/1/2021 4:55 PM	File folder	
LICENSE	5/3/2021 11:54 AM	TXT File	32 KB
NEWS	5/3/2021 11:55 AM	TXT File	934 KB
python	5/3/2021 11:54 AM	Application	100 KB
pythonw	5/3/2021 11:54 AM	Application	98 KB
vcruntime140.dll	5/3/2021 11:54 AM	Application extens...	94 KB
vcruntime140_1.dll	5/3/2021 11:54 AM	Application extens...	36 KB

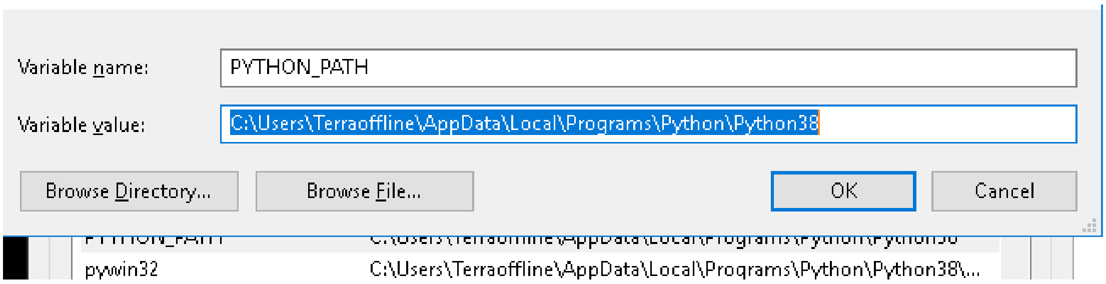


Edit environment variable

```
C:\ProgramData\Oracle\Java\javapath
E:\OracleDB12c\app\nlsadmin\product\12.1.0\dbhome_1\bin
C:\Program Files (x86)\Common Files\Oracle\Java\javapath
C:\Windows\system32
C:\Windows
C:\Windows\System32\Wbem
C:\Windows\System32\WindowsPowerShell\v1.0\
C:\Program Files\MySQL\MySQL Server 5.5\bin
C:\Deepinsight_Tool\spark-2.2.1-bin-hadoop2.7\bin
C:\Deepinsight_Tool\Pyton_Setup\Scripts
D:\tomcat-deepinsight-backup\hadoop-3.0.3\bin
C:\Program Files\Microsoft\Web Platform Installer\
C:\Program Files\Git\cmd
C:\Users\Terraoffline\AppData\Local\Programs\Python\Python38
C:\Users\Terraoffline\AppData\Local\Programs\Python\Python38\Scripts
D:\tomcat-deepinsight-backup\hadoop-3.0.3\bin
```

SUPERSET DEPLOYMENT INSTRUCTIONS – WINDOWS

In environment variable click new and add python installed source path as python path

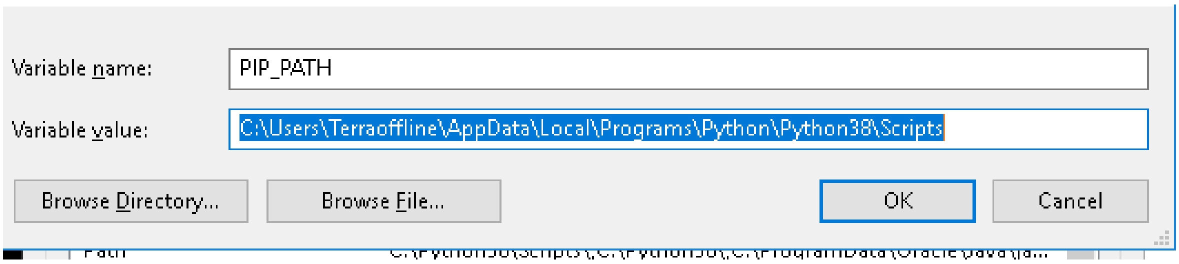


Variable name: PYTHON_PATH

Variable value: C:\Users\Terraoffline\AppData\Local\Programs\Python\Python38

pywin32 C:\Users\Terraoffline\AppData\Local\Programs\Python\Python38\...

add one more variable, In python source path you may find Scripts folder add that folder as PIP_PATH



Variable name: PIP_PATH

Variable value: C:\Users\Terraoffline\AppData\Local\Programs\Python\Python38\Scripts

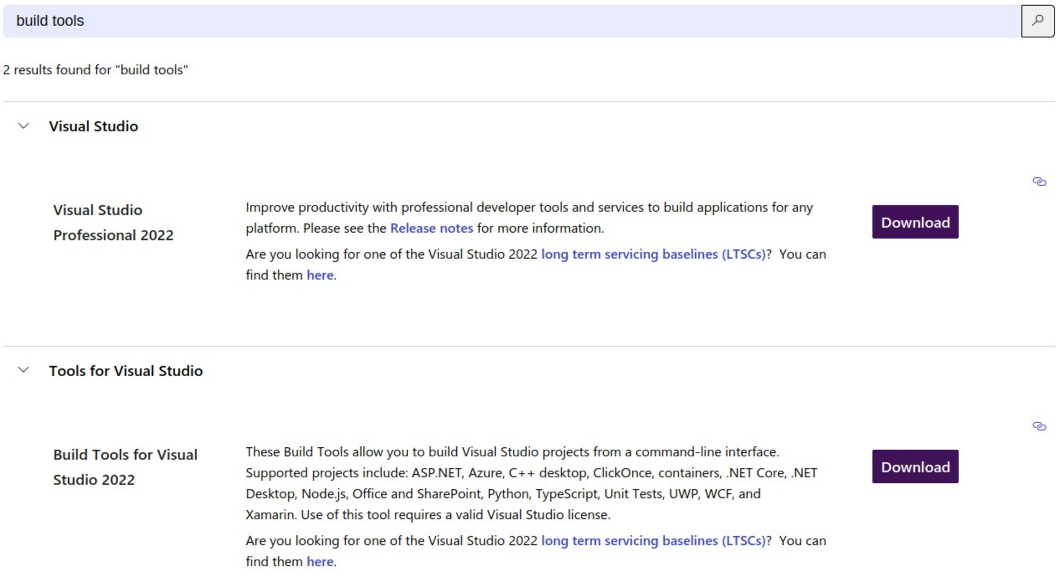
Save and do check now. You may able to get the python version in cmd.

STEP 2: INSTALL MICROSOFT VISUAL C++ 14.X STANDALONE

* To install the above we need to install Build tools for visual studio

Link : **https://visualstudio.microsoft.com/downloads/**

* Using the above link redirect to download page and in the bottom search for build tools. Download the second one **Build Tools for Visual Studio 2022**



build tools

2 results found for "build tools"

Visual Studio

Visual Studio Professional 2022

Improve productivity with professional developer tools and services to build applications for any platform. Please see the Release notes for more information.

Are you looking for one of the Visual Studio 2022 long term servicing baselines (LTSCs)? You can find them here.

Tools for Visual Studio

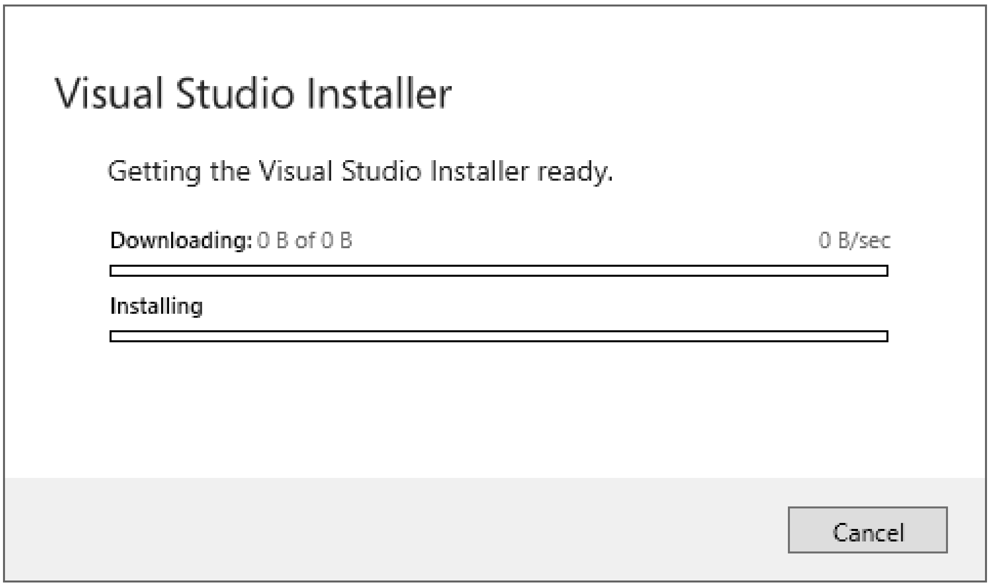
Build Tools for Visual Studio 2022

These Build Tools allow you to build Visual Studio projects from a command-line interface. Supported projects include: ASP.NET, Azure, C++ desktop, ClickOnce, containers, .NET Core, .NET Desktop, Node.js, Office and SharePoint, Python, TypeScript, Unit Tests, UWP, WCF, and Xamarin. Use of this tool requires a valid Visual Studio license.

Are you looking for one of the Visual Studio 2022 long term servicing baselines (LTSCs)? You can find them here.

SUPERSET DEPLOYMENT INSTRUCTIONS – WINDOWS

* Go to downloaded folder and double tab to run the application. It will download some internal files and automatically gets installed



Visual Studio Installer

Getting the Visual Studio Installer ready.

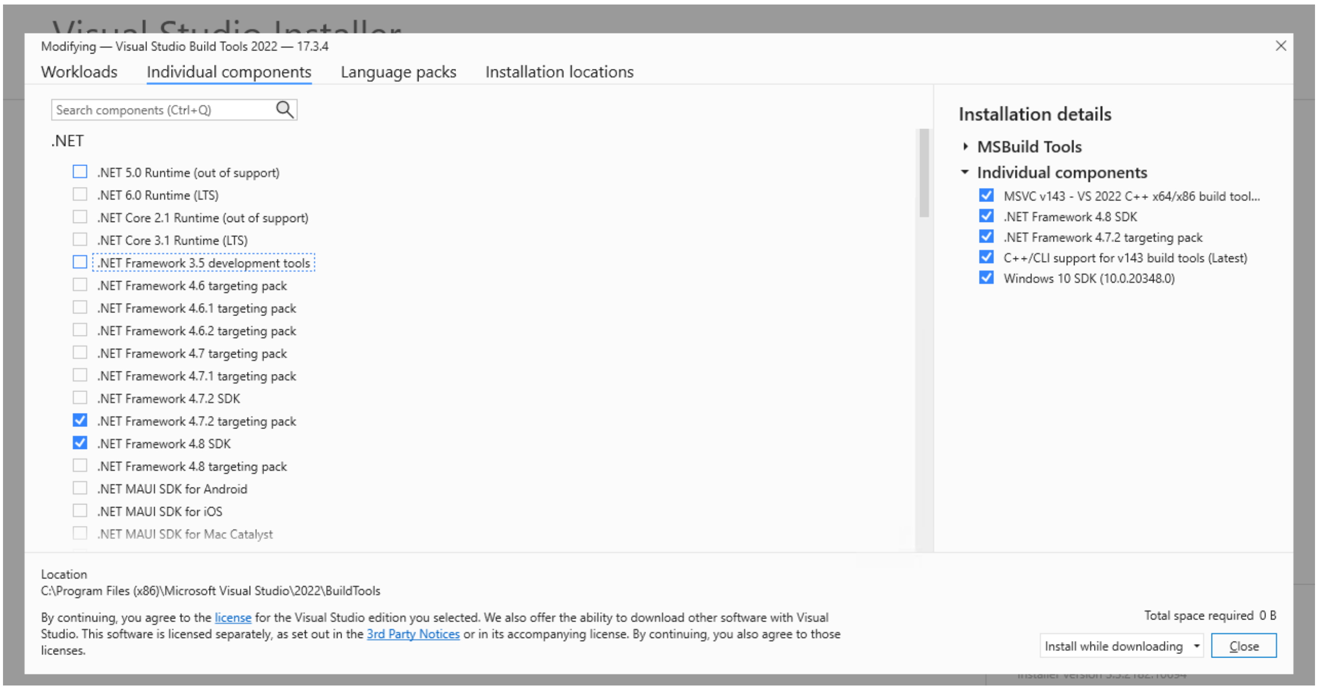
Downloading: 0 B of 0 B 0 B/sec

Installing

Cancel

* after downloading you'll be landed to below page. In that select individual components and select the components in right side of image and Install it.

Required Components
* .NET Framework 4.8 SDK (Choose the latest version)
* .NET Framework 4.7.2 targeting pack (Choose the latest version)
* Windows 10 SDK (Choose the latest version)
* MSVC V143 - VS 2022 C++ x64/x86 build tools (latest) (Here V143 is latest choose the latest while you're installing)
* C++/CLI Support for v143 build tools latest (latest)
(Note : The below componet versions are latest while installing. Choose whichever is latest while installing)



Modifying — Visual Studio Build Tools 2022 — 17.3.4

Workloads | Individual components | Language packs | Installation locations

Search components (Ctrl+Q)

.NET

☐ .NET 5.0 Runtime (out of support)
☐ .NET 6.0 Runtime (LTS)
☐ .NET Core 2.1 Runtime (out of support)
☐ .NET Core 3.1 Runtime (LTS)
☐ .NET Framework 3.5 development tools
☐ .NET Framework 4.6 targeting pack
☐ .NET Framework 4.6.1 targeting pack
☐ .NET Framework 4.6.2 targeting pack
☐ .NET Framework 4.7 targeting pack
☐ .NET Framework 4.7.1 targeting pack
☐ .NET Framework 4.7.2 SDK
☑ .NET Framework 4.7.2 targeting pack
☑ .NET Framework 4.8 SDK
☐ .NET Framework 4.8 targeting pack
☐ .NET MAUI SDK for Android
☐ .NET MAUI SDK for iOS
☐ .NET MAUI SDK for Mac Catalyst

Installation details

▸ MSBuild Tools
▾ Individual components
☑ MSVC v143 - VS 2022 C++ x64/x86 build tool...
☑ .NET Framework 4.8 SDK
☑ .NET Framework 4.7.2 targeting pack
☑ C++/CLI support for v143 build tools (Latest)
☑ Windows 10 SDK (10.0.20348.0)

Location
C:\Program Files (x86)\Microsoft Visual Studio\2022\BuildTools

By continuing, you agree to the license for the Visual Studio edition you selected. We also offer the ability to download other software with Visual Studio. This software is licensed separately, as set out in the 3rd Party Notices or in its accompanying license. By continuing, you also agree to those licenses.

Total space required 0 B

Install while downloading ▾ | Close

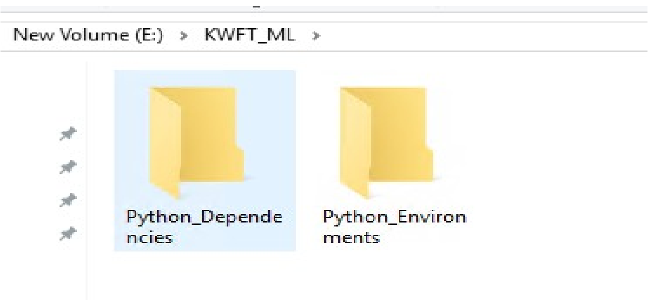
SUPERSET DEPLOYMENT INSTRUCTIONS – WINDOWS

* After installation close it.The above process may required Internet connectivity and some space from C drive

STEP 3: FOLDER STRUCTURE

* To create the folder structure go to the respective path you've allocated for installation and create a following directory

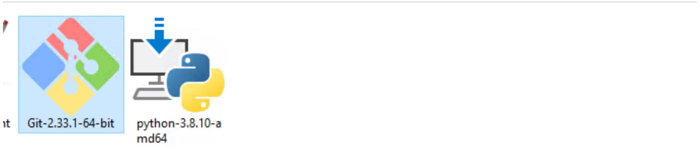
*Python_Dependencies *Python_Environments

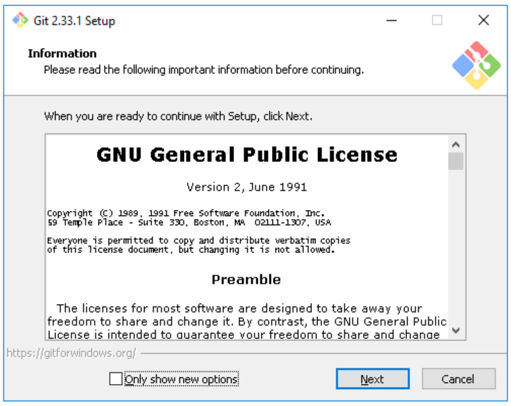


STEP 4: GIT TERMINAL SETUP

* Download the git terminal using below link and do install it. Do search for Git Bash and open the terminal

Link : **https://git-scm.com/downloads**





Information

Please read the following important information before continuing.

When you are ready to continue with Setup, click Next.

GNU General Public License

Version 2, June 1991

Copyright (C) 1989, 1991 Free Software Foundation, Inc.
59 Temple Place - Suite 330, Boston, MA 02111-1307, USA

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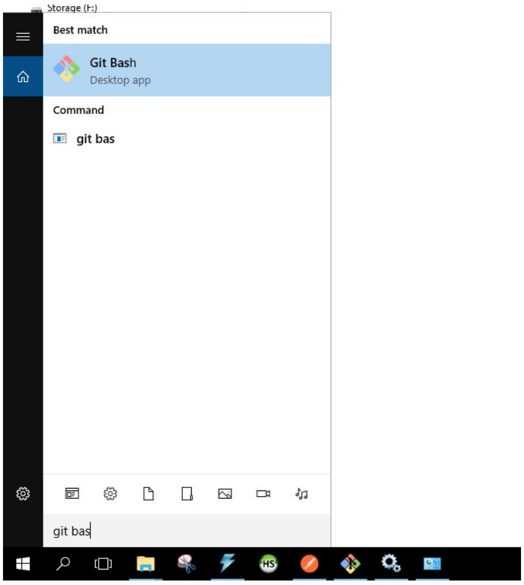
Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change

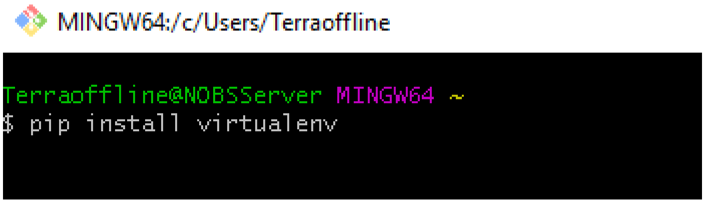


STEP 5: ENVIRONMENT SETUP (METHOD 1 – ONLINE (PREFERRED))

* Create the virtual environment and install necessory libraries to the respective enviroment. To create the virtual environmet,first to install virtual environment setup

~$ pip install virtualenv

SUPERSET DEPLOYMENT INSTRUCTIONS – WINDOWS



```
MINGW64:/c/Users/Terraoffline

Terraoffline@NOBSServer MINGW64 ~
$ pip install virtualenv
```

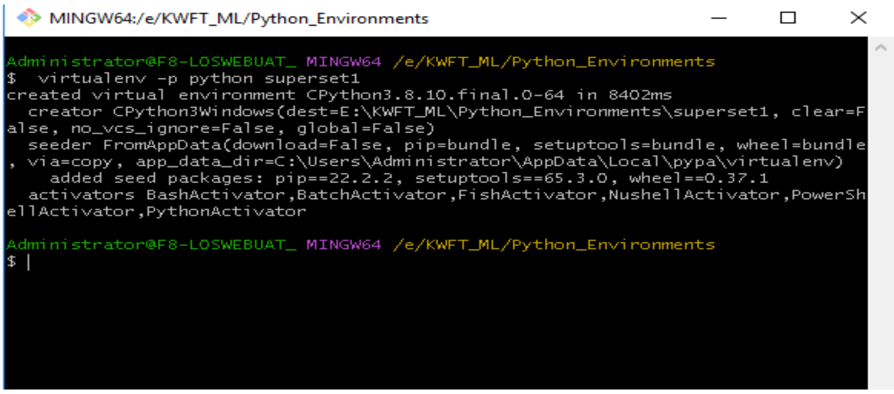
and followed by to create the virtual environment in Python_Environment folder we've created. Navigate to python environment folder using below command

~$ **cd E:KWFT_ML/Python_Environments/**

and to install python environment

~$ **virtualenv -p python superset**

here navigated to Python_Environments path for installing python environment and **superset** is the environment name

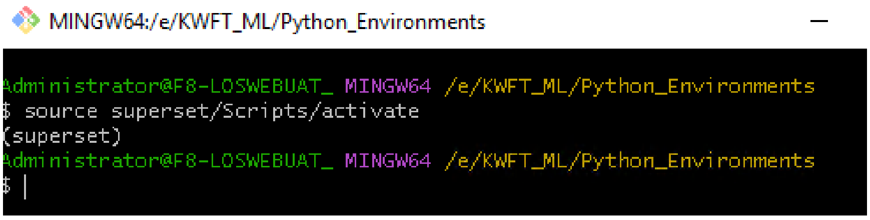


```
MINGW64:/e/KWFT_ML/Python_Environments

Administrator@F8-LOSWEBUAT_ MINGW64 /e/KWFT_ML/Python_Environments
$  virtualenv -p python superset1
created virtual environment CPython3.8.10.final.0-64 in 8402ms
  creator CPython3Windows(dest=E:\KWFT_ML\Python_Environments\superset1, clear=F
alse, no_vcs_ignore=False, global=False)
  seeder FromAppData(download=False, pip=bundle, setuptools=bundle, wheel=bundle
, via=copy, app_data_dir=C:\Users\Administrator\AppData\Local\pypa\virtualenv)
    added seed packages: pip==22.2.2, setuptools==65.3.0, wheel==0.37.1
  activators BashActivator,BatchActivator,FishActivator,NushellActivator,PowerSh
ellActivator,PythonActivator

Administrator@F8-LOSWEBUAT_ MINGW64 /e/KWFT_ML/Python_Environments
$ |
```

once the environment installed you may find the folder in the respective path you've mentioned

* To activate the created python environment

~$ **source superset/Scripts/activate**



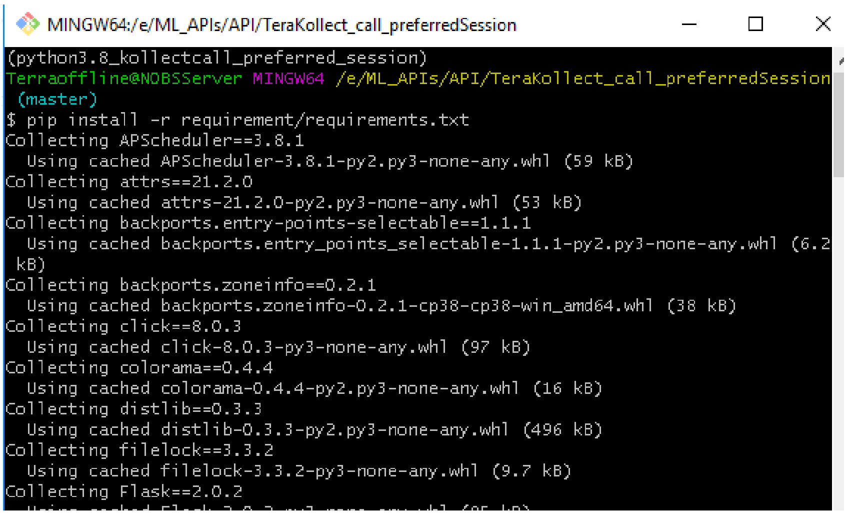
```
MINGW64:/e/KWFT_ML/Python_Environments

Administrator@F8-LOSWEBUAT_ MINGW64 /e/KWFT_ML/Python_Environments
$ source superset/Scripts/activate
(superset)
Administrator@F8-LOSWEBUAT_ MINGW64 /e/KWFT_ML/Python_Environments
$ |
```

Here we navigated to python environment directory and then /Scripts/activate will activate your environment. you may find the environment name in terminal

* To install the dependencies paste the given **requirements.txt** file Python_Environment folder and to install the depedencies using below

~$ **pip install -r requirement/requirements.txt**

SUPERSET DEPLOYMENT INSTRUCTIONS – WINDOWS



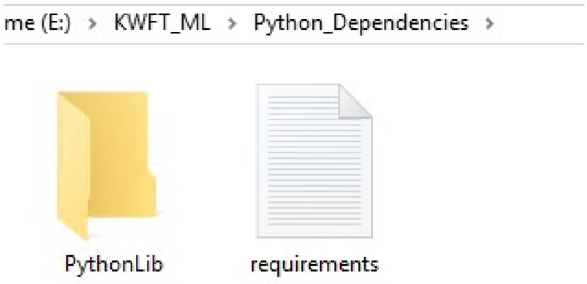
MINGW64:/e/ML_APIs/API/TeraKollect_call_preferredSession

```
(python3.8_kollectcall_preferred_session)
Terraoffline@NOBSServer MINGW64 /e/ML_APIs/API/TeraKollect_call_preferredSession
 (master)
$ pip install -r requirement/requirements.txt
Collecting APScheduler==3.8.1
  Using cached APScheduler-3.8.1-py2.py3-none-any.whl (59 kB)
Collecting attrs==21.2.0
  Using cached attrs-21.2.0-py2.py3-none-any.whl (53 kB)
Collecting backports.entry-points-selectable==1.1.1
  Using cached backports.entry_points_selectable-1.1.1-py2.py3-none-any.whl (6.2
 kB)
Collecting backports.zoneinfo==0.2.1
  Using cached backports.zoneinfo-0.2.1-cp38-cp38-win_amd64.whl (38 kB)
Collecting click==8.0.3
  Using cached click-8.0.3-py3-none-any.whl (97 kB)
Collecting colorama==0.4.4
  Using cached colorama-0.4.4-py2.py3-none-any.whl (16 kB)
Collecting distlib==0.3.3
  Using cached distlib-0.3.3-py2.py3-none-any.whl (496 kB)
Collecting filelock==3.3.2
  Using cached filelock-3.3.2-py3-none-any.whl (9.7 kB)
Collecting Flask==2.0.2
  Using cached Flask-2.0.2-py3-none-any.whl (95 kB)
```

it will take some time based on the libraries we’ve used

STEP 5: ENVIRONMENT SETUP (METHOD 2 – OFFLINE)

* In this method required libraries dowloaded from the other system and later it’s been moved into required system. To dowload first you need **requirement.txt** file. Create a folder for libraries to download and paste the requirement.txt file outside the folder directory

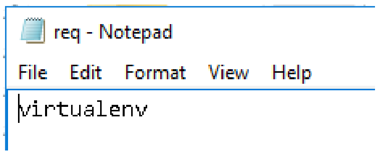


* To install the required libraries in specied folder

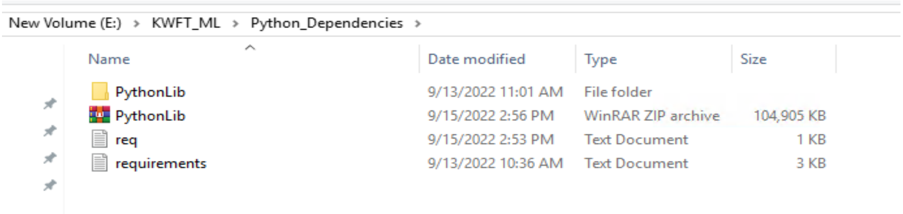
~$ pip download --destination-directory PythonLib/ -r requirements.txt

Now you may able to see the required libraries downloading in the specified folder. Copy the folder and requirements.txt file to the destination system.

In Python Depedencies folder paste the below files given and do extract the ZIP file. Create req.txt file which holdes virtualenv txt inside it. The folder structure should like below.



```
virtualenv
```



Name	Date modified	Type	Size
PythonLib	9/13/2022 11:01 AM	File folder	
PythonLib	9/15/2022 2:56 PM	WinRAR ZIP archive	104,905 KB
req	9/15/2022 2:53 PM	Text Document	1 KB
requirements	9/13/2022 10:36 AM	Text Document	3 KB

SUPERSET DEPLOYMENT INSTRUCTIONS – WINDOWS

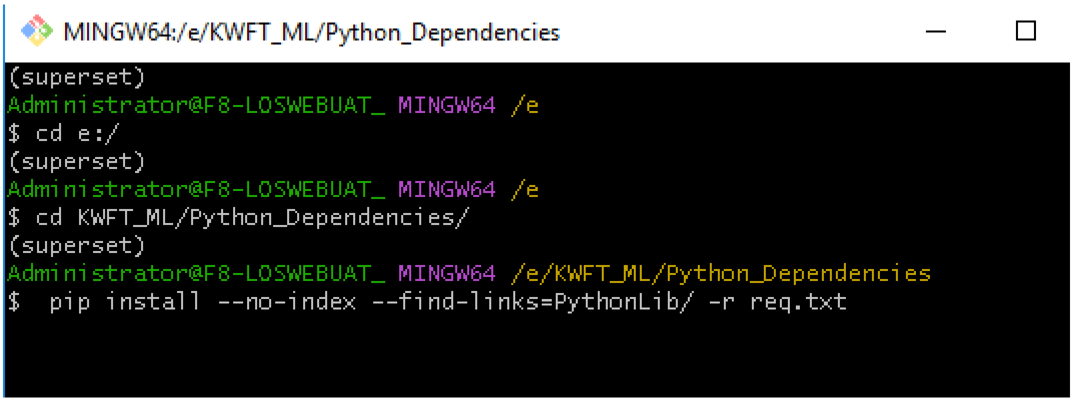
* Nagaviate to Python dependencies folder and run below

To Nagaviate

~$ cd E:/
~$ cd KWFT_ML/Python_Dependencies/

To Install the Virtual enviroment

~$ pip install --no-index --find-links=PythonLib/ -r req.txt



```
(superset)
Administrator@F8-LOSWEBUAT_ MINGW64 /e
$ cd e:/
(superset)
Administrator@F8-LOSWEBUAT_ MINGW64 /e
$ cd KWFT_ML/Python_Dependencies/
(superset)
Administrator@F8-LOSWEBUAT_ MINGW64 /e/KWFT_ML/Python_Dependencies
$  pip install --no-index --find-links=PythonLib/ -r req.txt
```

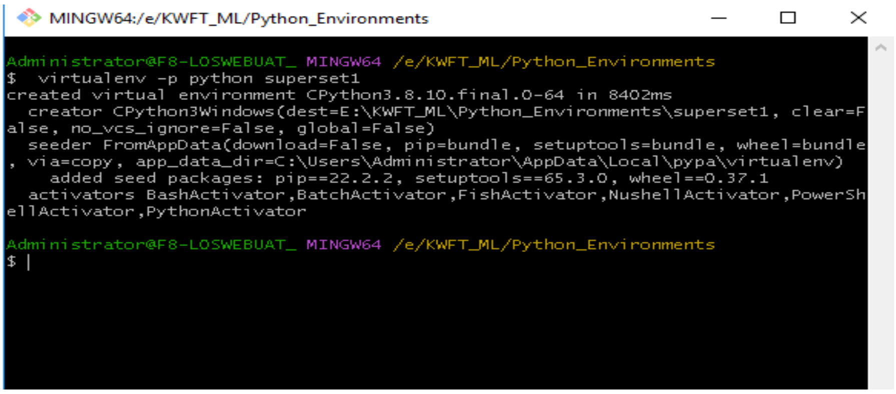
and followed by to create the virtual environment in Python_Environment folder we've created. Navigate to python environment folder using below command

~$ **cd E:KWFT_ML/Python_Environments/**

and to install python environment

~$ **virtualenv -p python superset**

here navigated to Python_Environments path for installing python environment and **superset** is the environment name



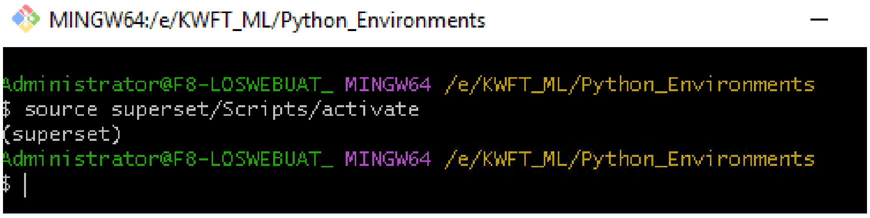
```
Administrator@F8-LOSWEBUAT_ MINGW64 /e/KWFT_ML/Python_Environments
$  virtualenv -p python superset1
created virtual environment CPython3.8.10.final.0-64 in 8402ms
  creator CPython3Windows(dest=E:\KWFT_ML\Python_Environments\superset1, clear=F
alse, no_vcs_ignore=False, global=False)
  seeder FromAppData(download=False, pip=bundle, setuptools=bundle, wheel=bundle
, via=copy, app_data_dir=C:\Users\Administrator\AppData\Local\pypa\virtualenv)
    added seed packages: pip==22.2.2, setuptools==65.3.0, wheel==0.37.1
  activators BashActivator,BatchActivator,FishActivator,NushellActivator,PowerSh
ellActivator,PythonActivator

Administrator@F8-LOSWEBUAT_ MINGW64 /e/KWFT_ML/Python_Environments
$ |
```

once the environment installed you may find the folder in the respective path you've mentioned

* To activate the created python environment

~$ **source superset/Scripts/activate**

SUPERSET DEPLOYMENT INSTRUCTIONS – WINDOWS

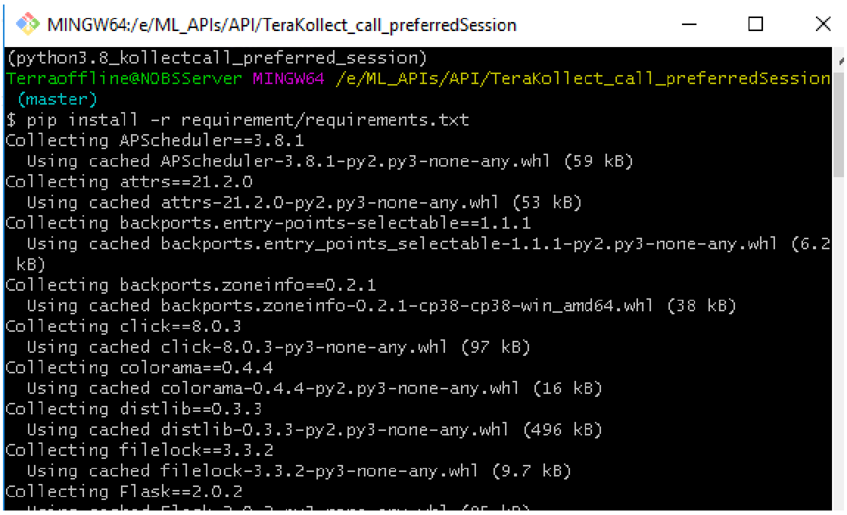


```
Administrator@F8-LOSWEBUAT_ MINGW64 /e/KWFT_ML/Python_Environments
$ source superset/Scripts/activate
(superset)
Administrator@F8-LOSWEBUAT_ MINGW64 /e/KWFT_ML/Python_Environments
$ |
```

Here we navigated to python environment directory and then /Scripts/activate will activate your environment. you may find the environment name in terminal

* To install the dependencies paste the given **requirements.txt** file Python_Environment folder and to install the depedencies using below

~$ **pip install -r requirement/requirements.txt**



```
(python3.8_kollectcall_preferred_session)
Terraoffline@NOBSServer MINGW64 /e/ML_APIs/API/TeraKollect_call_preferredSession
 (master)
$ pip install -r requirement/requirements.txt
Collecting APScheduler==3.8.1
  Using cached APScheduler-3.8.1-py2.py3-none-any.whl (59 kB)
Collecting attrs==21.2.0
  Using cached attrs-21.2.0-py2.py3-none-any.whl (53 kB)
Collecting backports.entry-points-selectable==1.1.1
  Using cached backports.entry_points_selectable-1.1.1-py2.py3-none-any.whl (6.2
 kB)
Collecting backports.zoneinfo==0.2.1
  Using cached backports.zoneinfo-0.2.1-cp38-cp38-win_amd64.whl (38 kB)
Collecting click==8.0.3
  Using cached click-8.0.3-py3-none-any.whl (97 kB)
Collecting colorama==0.4.4
  Using cached colorama-0.4.4-py2.py3-none-any.whl (16 kB)
Collecting distlib==0.3.3
  Using cached distlib-0.3.3-py2.py3-none-any.whl (496 kB)
Collecting filelock==3.3.2
  Using cached filelock-3.3.2-py3-none-any.whl (9.7 kB)
Collecting Flask==2.0.2
```

it will take some time based on the libraries we've used

STEP 6: SUPERSET SETUP

* Superset already been installed via requirements.txt. Now we need to setup to use it further.

Nagaviate to Superset environment first
~$ cd E:KWFT_ML/Python_Environments/superset/Scripts

To create Flask app
~$ export FLASK_APP=superset

To Initialize the database
~$ superset db upgrade

Load some data to play with
~$ superset load_examples

Create default role and permissions
~$ superset init

SUPERSET DEPLOYMENT INSTRUCTIONS – WINDOWS

STEP 7: DATABASE PREREQUISITES

* Superset using its own data to all configurations in it. It stores all data in a file. This file needs to be changed so our chart changes will reflects here. To change this file go to

C drive -> Users -> Select the user you’ve installed (Administrator) and .superset
(If not found then click show hidden files to see)

* Replace the given file named **superset** in that filder (don’t change the file name)

To Re Initialize the database
~$ superset db upgrade

To Run the application
~$ nohup superset run -p 8088 --with-threads --reload --debugger &
~$ logout

STEP 8: VALIDATE APPLICATION RUNNING OR NOT

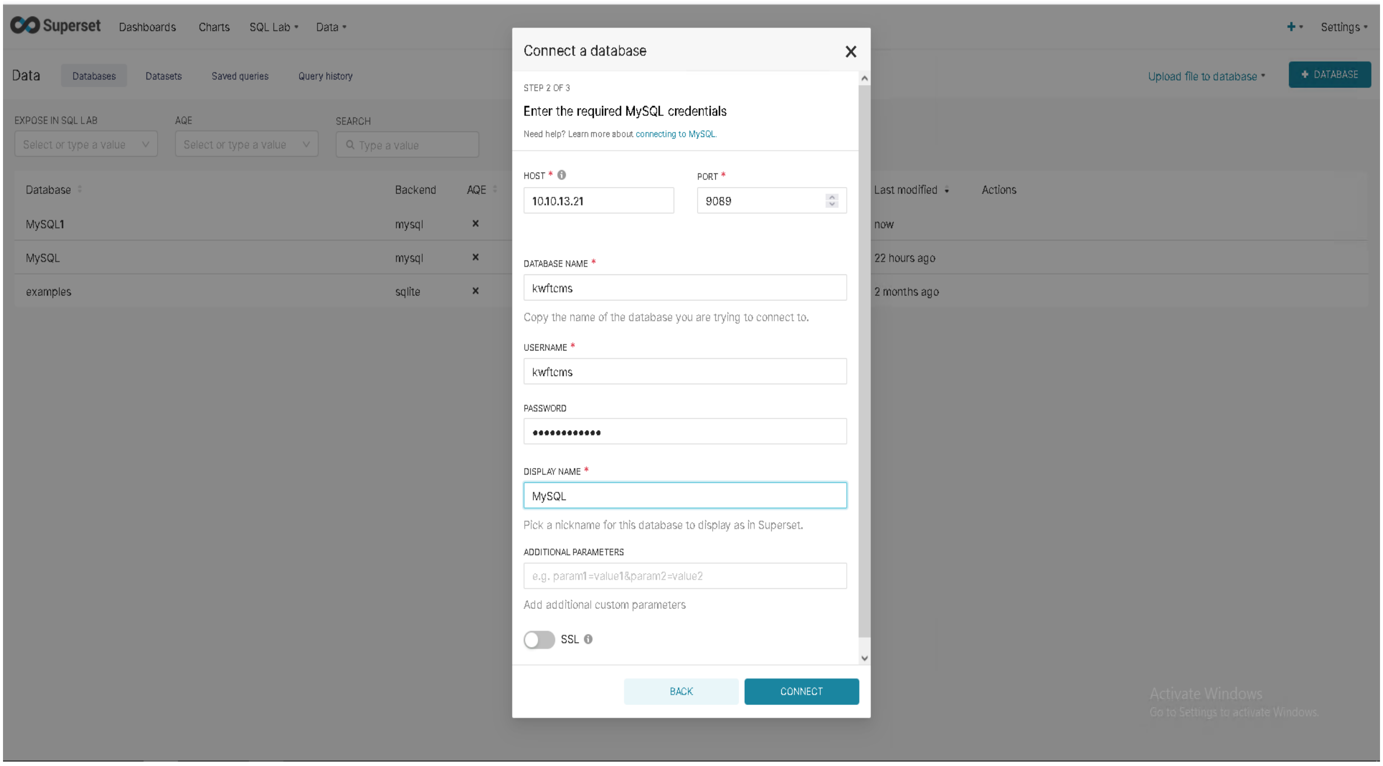
* once above steps are completed you may check whether application working or not using below URL
URL : http://127.0.0.1:8088/

You will redirected to login page. To login superset
Username : admin
Password : Admin@321

STEP 9: DATABASE CONFIGURATION

* In further Database needs to be configured to further charts to access the database

Login to Superset -> Data -> Databases -> right side tope corner new database -> select the respective database you’re configuring



Database	Backend	AQE	Last modified	Actions
MySQL1	mysql	×	now	
MySQL	mysql	×	22 hours ago	
examples	sqlite	×	2 months ago	

Connect a database

STEP 2 OF 3

Enter the required MySQL credentials

Need help? Learn more about connecting to MySQL.

HOST * : 10.10.13.21

PORT * : 9089

DATABASE NAME * : kwftcms

Copy the name of the database you are trying to connect to.

USERNAME * : kwftcms

PASSWORD : ••••••••••••

DISPLAY NAME * : MySQL

Pick a nickname for this database to display as in Superset.

ADDITIONAL PARAMETERS : e.g. param1=value1&param2=value2

Add additional custom parameters

○ SSL

SUPERSET DEPLOYMENT INSTRUCTIONS – WINDOWS

Enter the Hostname,Port,Database,Username,Password and Connection name as MYSQL and connect

Now you may able to visualise the chart as per the Given URL for Dashbords

Ex : http://127.0.0.1:8088/superset/dashboard/14/

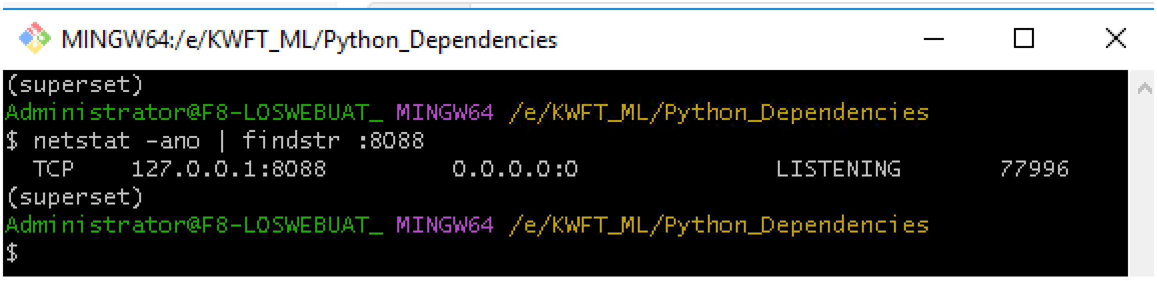
*** STEP 10 : FURTHER VERSION'S DEPLOYMENT**

In the above we've seen how to deploy the fresh version.here quickly brief how to deploy the next and further releases

* Replace the given superset file in specified folder
* Do login and check the connection details
* Activate the respective python environment using above commands
* Run the superset using above commands

* First step to terminate the process we've executed already in past. We're running our application in port no **8088** and going to kill our process using port number. To do that in cmd

~$ **netstat -ano | findstr :8088**

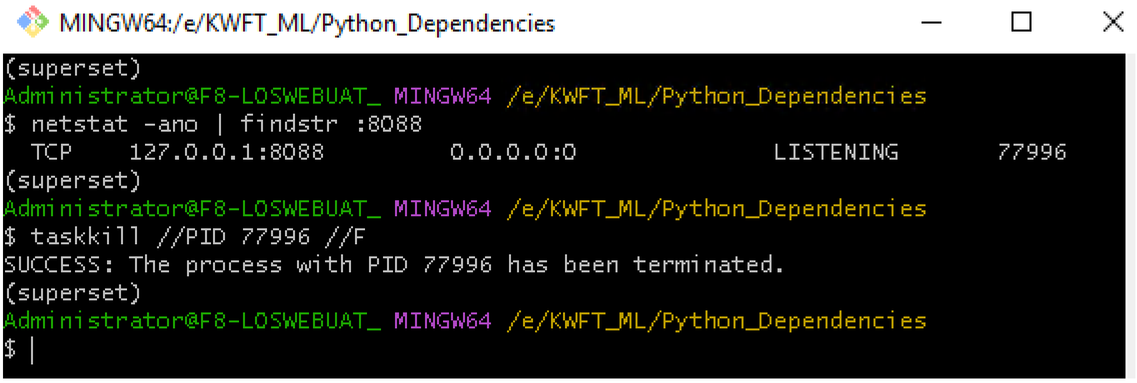


```
(superset)
Administrator@F8-LOSWEBUAT_ MINGW64 /e/KWFT_ML/Python_Dependencies
$ netstat -ano | findstr :8088
  TCP    127.0.0.1:8088         0.0.0.0:0              LISTENING       77996
(superset)
Administrator@F8-LOSWEBUAT_ MINGW64 /e/KWFT_ML/Python_Dependencies
$
```

and using the above PID (**77996**) we have to kill the process. (Some times it may show multiple PID we have to kill all). To double check execute the cmd again and again till it is empty

To kill the PID

~$ **taskkill //PID 77996 //F**



```
(superset)
Administrator@F8-LOSWEBUAT_ MINGW64 /e/KWFT_ML/Python_Dependencies
$ netstat -ano | findstr :8088
  TCP    127.0.0.1:8088         0.0.0.0:0              LISTENING       77996
(superset)
Administrator@F8-LOSWEBUAT_ MINGW64 /e/KWFT_ML/Python_Dependencies
$ taskkill //PID 77996 //F
SUCCESS: The process with PID 77996 has been terminated.
(superset)
Administrator@F8-LOSWEBUAT_ MINGW64 /e/KWFT_ML/Python_Dependencies
$ |
```

Replace the **Superset** file given in the above specified folder

SUPERSET DEPLOYMENT INSTRUCTIONS – WINDOWS

To Run our application again

Nagaviate to Superset environment first
~$ cd E:KWFT_ML/Python_Environments/superset/Scripts

activate the environment
~$ source activate

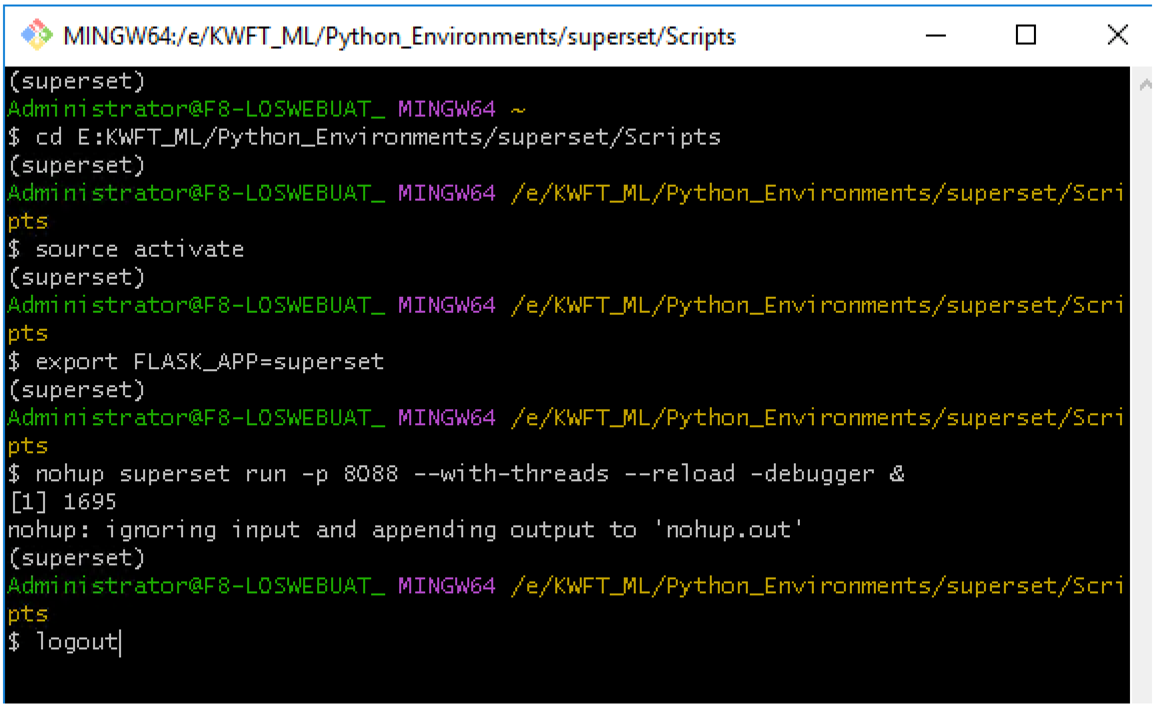
To create Flask app
~$ export FLASK_APP=superset

To run
~$ nohup superset run -p 8088 --with-threads –reload --debugger &

and type

~$ **logout**

and close terminal and execute the process in background



```
(superset)
Administrator@F8-LOSWEBUAT_ MINGW64 ~
$ cd E:KWFT_ML/Python_Environments/superset/Scripts
(superset)
Administrator@F8-LOSWEBUAT_ MINGW64 /e/KWFT_ML/Python_Environments/superset/Scri
pts
$ source activate
(superset)
Administrator@F8-LOSWEBUAT_ MINGW64 /e/KWFT_ML/Python_Environments/superset/Scri
pts
$ export FLASK_APP=superset
(superset)
Administrator@F8-LOSWEBUAT_ MINGW64 /e/KWFT_ML/Python_Environments/superset/Scri
pts
$ nohup superset run -p 8088 --with-threads --reload -debugger &
[1] 1695
nohup: ignoring input and appending output to 'nohup.out'
(superset)
Administrator@F8-LOSWEBUAT_ MINGW64 /e/KWFT_ML/Python_Environments/superset/Scri
pts
$ logout
```

and this need’s to be validated further, whether the application running or not using the above methods mentioned