

## **Ex No: 1            INSTALLATION AND CONFIGURATION OF TENSORFLOW**

### **Aim:**

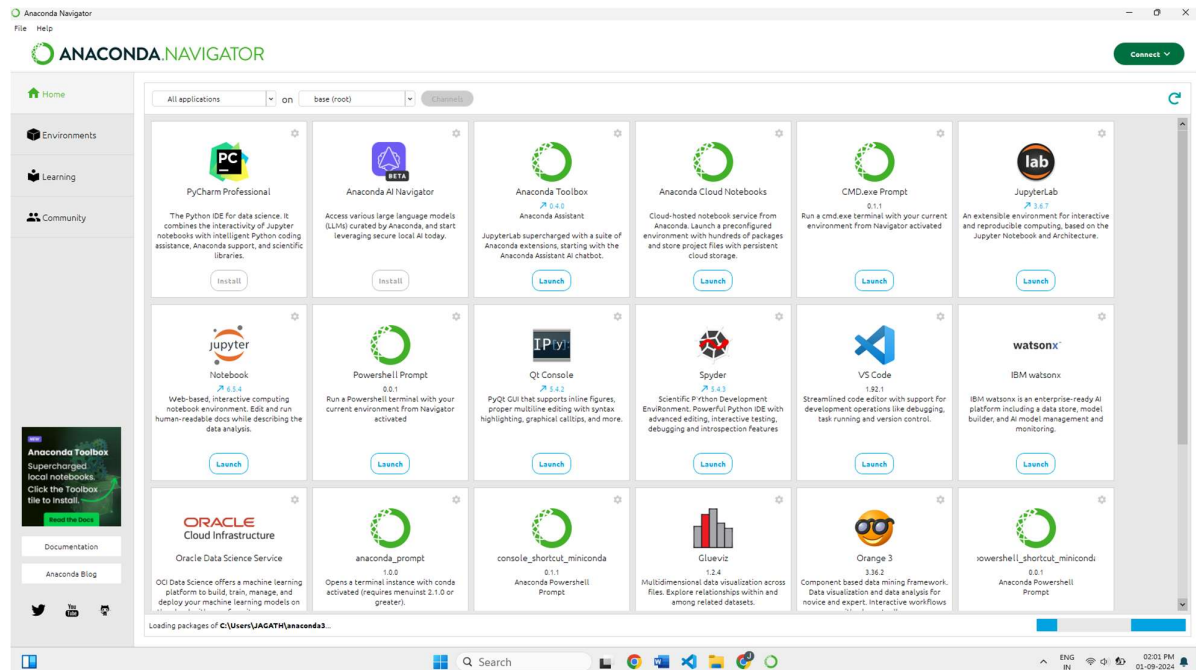
To install and configure TensorFlow in anaconda environment in Windows 10.

### **Procedure:**

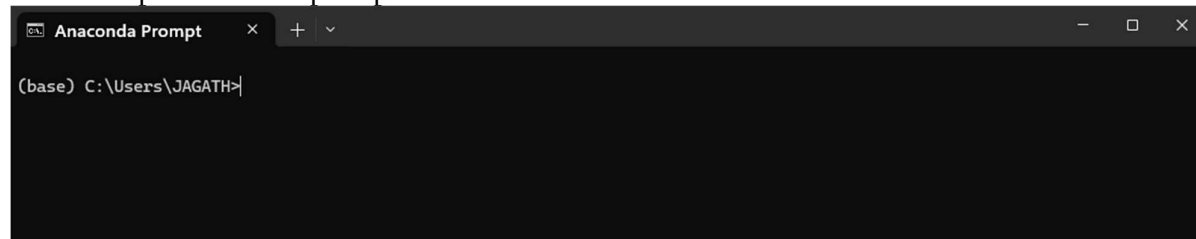
1. Download Anaconda Navigator and install.
2. Open Anaconda prompt
3. Create a new environment dlc with python 3.7 using the following command:  
`conda create -n dlc python=3.7`
4. Activate newly created environment dlc using the following command:  
`conda activate dlc`
5. In dlc prompt, install tensorflow using the following command:  
`pip install tensorflow`
6. Next install Tensorflow-datasets using the following command:  
`pip install tensorflow-datasets`
7. Install scikit-learn package using the following command:  
`pip install scikit-learn`
8. Install pandas package using the following command:  
`pip install pandas`
9. Lastly, install jupyter notebook  
`pip install jupyter notebook`
10. Open jupyter notebook by typing the following in dlc prompt:  
`jupyter notebook`
11. Click create new and then choose python 3 (ipykernel)
12. Give the name to the file
13. Type the code and click Run button to execute (eg. Type `import tensorflow` and then run)

## OUTPUT:

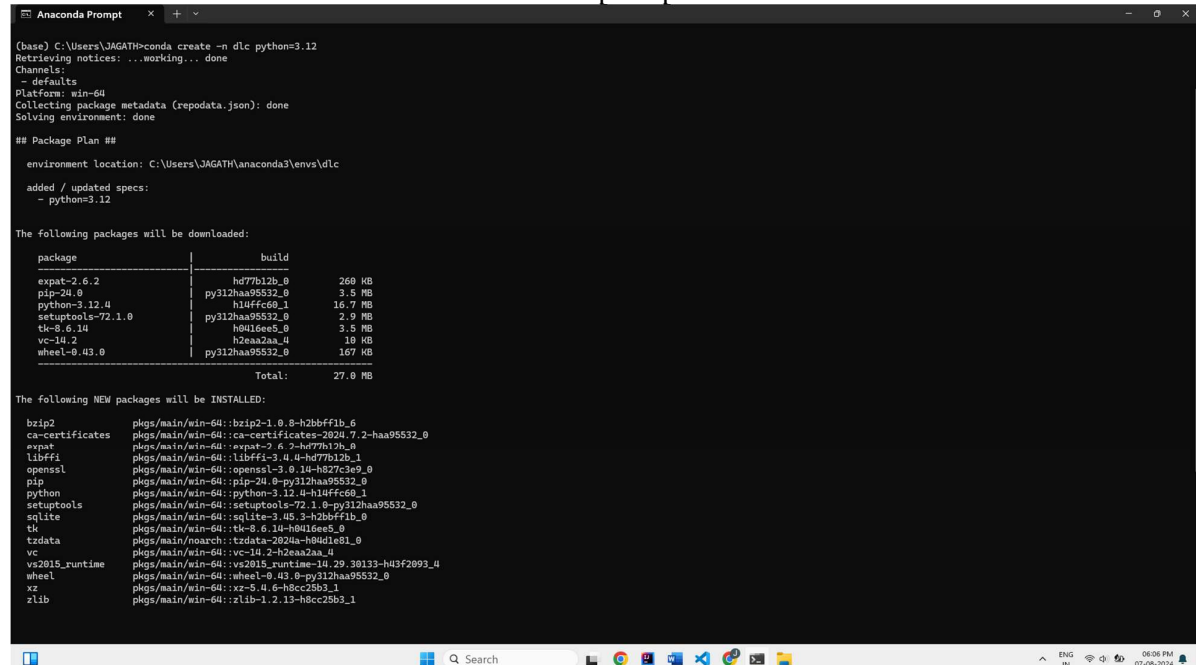
### 1.Download anaconda navigator



### 2.open anaconda prompt



### 3.Create a new environment in anaconda prompt



#### 4.activate newly created environment

```
Downloading and Extracting Packages:
Preparing transaction: done
Verifying transaction: done
Executing transaction: done
#
# To activate this environment, use
#
#     $ conda activate dlc
#
# To deactivate an active environment, use
#
#     $ conda deactivate
#
(base) C:\Users\JAGATH>conda activate dlc
(dlc) C:\Users\JAGATH>
```

5.in dlc environment install tensorflow, sci-kit-learn, and pandas.

```
Installing collected packages: pytz, tzdata, pandas
Successfully installed pandas-2.2.2 pytz-2024.1 tzdata-2024.1

(dlc) C:\Users\JAGATH>
```

```
Installing collected packages: threadpoolctl, scipy, joblib, scikit-learn
Successfully installed joblib-1.4.2 scikit-learn-1.5.1 scipy-1.14.0 threadpoolctl-3.5.0

(dlc) C:\Users\JAGATH>
```

```

Downloading mndlr-0.1.2-py3-none-any.whl (18.0 kB)
Installing collected packages: name, libclang, flake8, urllib3, typing-extensions, termcolor, tensorboard-data-server, protobuf, numpy, mndlr, MarkupSafe, markdown, idna, grpcio, google-pasta, gas, charset-normalizer, certifi, astunparse, absl-py, werkzeug, requests, optree, opt-einsum, all-dtypes, markdown-it-py, h5py, tensorflow, rich, keras, tensorflow-tensorflow
Successfully installed MarkupSafe-2.1.5 absl-py-2.1.0 astunparse-1.6.3 certifi-2024.7.4 charset-normalizer-3.3.2 flake8-7.0.0 google-pasta-0.2.8 grpcio-1.65.4 h5py-3.11.0 idna-3.7 keras-3.4.1 libclang-18.1.0 markdown-3.7 markdown-it-py-3.0.0 mndlr-0.1.2 numpy-1.26.4 opt-einsum-3.3.9 optree-0.12.1 protobuf-5.28.4 requests-2.32.3 rich-13.7.1 tensorflow-2.17.0 tensorflow-tensorboard-data-server-0.7.2 tensorflow-2.17.0 tensorflow-intel-2.17.0 termcolor-2.4.0 typing-extensions-4.12.2 urllib3-2.2.2 werkzeug-3.0.3 wrapt-1.16.0
(dlc) C:\Users\JAGATH>

```

## 6. Install jupyter notebook

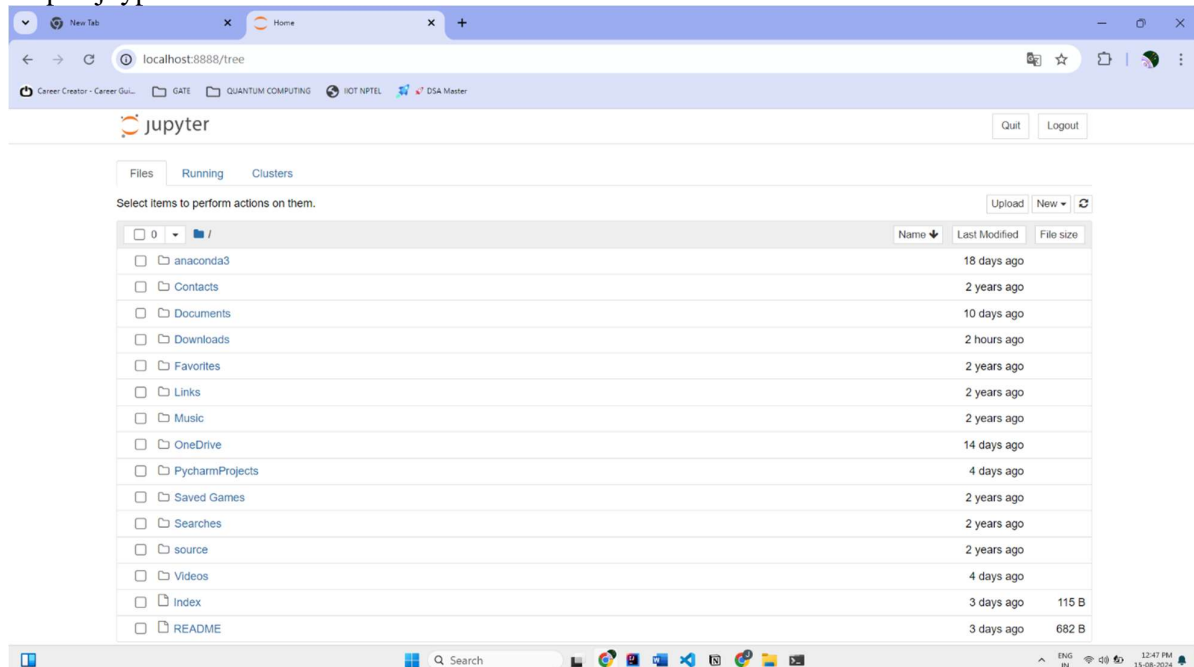
```

Downloading types_python_dateutil-2.9.0.20240316-py3-none-any.whl (9.7 kB)
Installing collected packages: webencodings, fastjsonschema, widgetsnbextension, websocket-client, web
colors, uri-template, types-python-dateutil, tinycss2, soupsieve, sniffio, send2trash, rpds-py, rfc398
6-validator, rfc3339-validator, qtpy, pyyaml, pywinpty, python-json-logger, pycparser, prometheus-clie
nt, pandocfilters, overrides, mistune, jupyterlab-widgets, jupyterlab-pygments, jsonpointer, json5, ji
nja2, h11, fqdn, defusedxml, bleach, babel, attrs, async-lru, terminado, referencing, httpcore, cffi,
beautifulsoup4, arrow, anyio, jupyter-server-terminals, jsonschema-specifications, isoduration, httpx,
argon2-cffi-bindings, jsonschema, ipywidgets, argon2-cffi, qtconsole, nbformat, jupyter-console, nbcl
ient, jupyter-events, nbconvert, jupyter-server, notebook-shim, jupyterlab-server, jupyter-lsp, jupyter
rlab, notebook, jupyter
Successfully installed anyio-4.4.0 argon2-cffi-23.1.0 argon2-cffi-bindings-21.2.0 arrow-1.3.0 async-lr
u-2.0.4 attrs-24.2.0 babel-2.15.0 beautifulsoup4-4.12.3 bleach-6.1.0 cffi-1.17.0 defusedxml-0.7.1 fast
jsonschema-2.20.0 fqdn-1.5.1 h11-0.14.0 httpcore-1.0.5 httpx-0.27.0 ipywidgets-8.1.3 isoduration-20.11
0 jinja2-3.1.4 json5-0.9.25 jsonpointer-3.0.0 jsonschema-4.23.0 jsonschema-specifications-2023.12.1 j
upyter-1.0.0 jupyter-console-6.6.3 jupyter-events-0.10.0 jupyter-lsp-2.2.5 jupyter-server-2.14.2 jupyt
er-server-terminals-0.5.3 jupyterlab-4.2.4 jupyterlab-pygments-0.3.0 jupyterlab-server-2.27.3 jupyterl
ab-widgets-3.0.11 mistune-3.0.2 nbclient-0.10.0 nbconvert-7.16.4 nbformat-5.10.4 notebook-7.2.1 notebo
ok-shim-0.2.4 overrides-7.7.0 pandocfilters-1.5.1 prometheus-client-0.20.0 pycparser-2.22 python-json-
logger-2.0.7 pywinpty-2.0.13 pyyaml-6.0.2 qtconsole-5.5.2 qtpy-2.4.1 referencing-0.35.1 rfc3339-valida
tor-0.1.4 rfc3986-validator-0.1.1 rpds-py-0.20.0 send2trash-1.8.3 sniffio-1.3.1 soupsieve-2.5 terminad
o-0.18.1 tinycss2-1.3.0 types-python-dateutil-2.9.0.20240316 uri-template-1.3.0 webcolors-24.6.0 weben
codings-0.5.1 websocket-client-1.8.0 widgetsnbextension-4.0.11

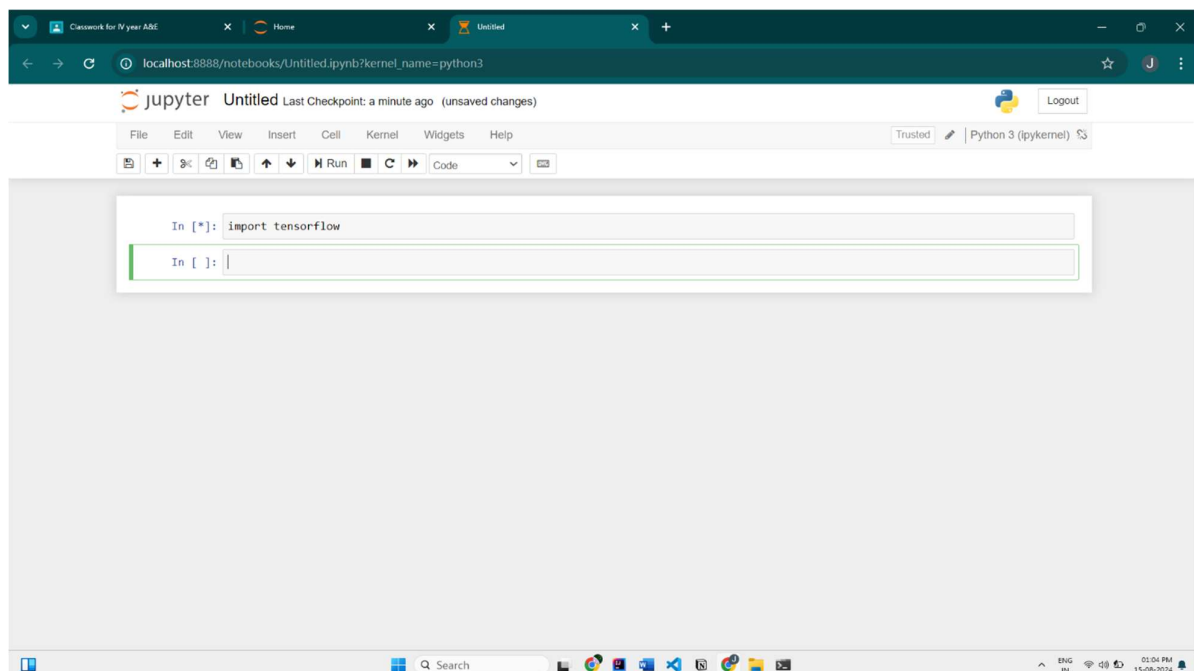
(dlc) C:\Users\JAGATH>

```

## 7.open jupyter notebook



## 8.import tensorflow and run the cell



## Useful Learning Resources:

1. <https://docs.anaconda.com/free/anaconda/applications/tensorflow/>
2. <https://conda.io/projects/conda/en/latest/user-guide/tasks/manage-environments.html#activating-an-environment>