# Get the Docker Image and Run it

Note: For this lab you must have Docker installed before you begin.

* Open a command prompt / PowerShell prompt on the machine with Docker installed
* Download the latest version of the TensorFlow container with Jupyter installed

docker pull tensorflow/tensorflow:latest-py3-jupyter

Jupyter is a notebook tool that allows python commands to be entered, changed and run real time.

* Create a folder on the local machine to store saved notebooks even when the docker container is closed (command might be slightly different on Windows

mkdir ~/notebooks

* Run the docker container (Command might be slightly different on Windows)

docker run -it --rm -v ~/notebooks:/tf/notebooks -p 8888:8888 tensorflow/tensorflow:latest-py3-jupyter

# Open the Jupyter notebook

* Leaving the command prompt open and the container running
* Look back and copy the token to the clip board
* Open a browser
* In the browser navigate to the following address:

Localhost:8888

* Paste the token into the “Password or Token” field and press the “Log in” button
* Click on the “Notebooks” folder to enter it.
* On the right select new and “Python 3” under notebook
* Click on the “File“ Menu and select “Save As”. Enter the file name of “HelloWorld” and press save.

# Write our Hello World Program

In Python programming indentation is important and denotes different parts of the program structure.

Many lines of code can be put in one Jupyter text area or across many. Individual Jupyter text areas can be run using the results of ones that have been run before.

* In the text area enter the following lines
* Import the TensorFlow library

import tensorflow as tf

* Set a TensorFlow constant with the term “Hello World”

hello = tf.constant('Hello World')

* Create a Function to return the hello constant

@tf.function

def getHello():

return hello

* Print out the return value of the function

print (getHello())

* Press the run button on our text area

The results of the run of this program should be:

tf.Tensor(Hello World', shape=(), dtype=string)

* Save your notebook