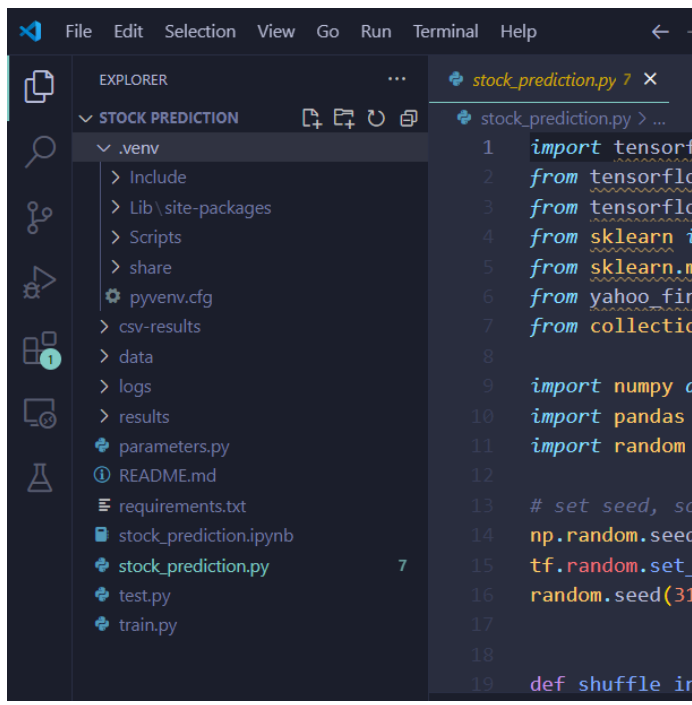
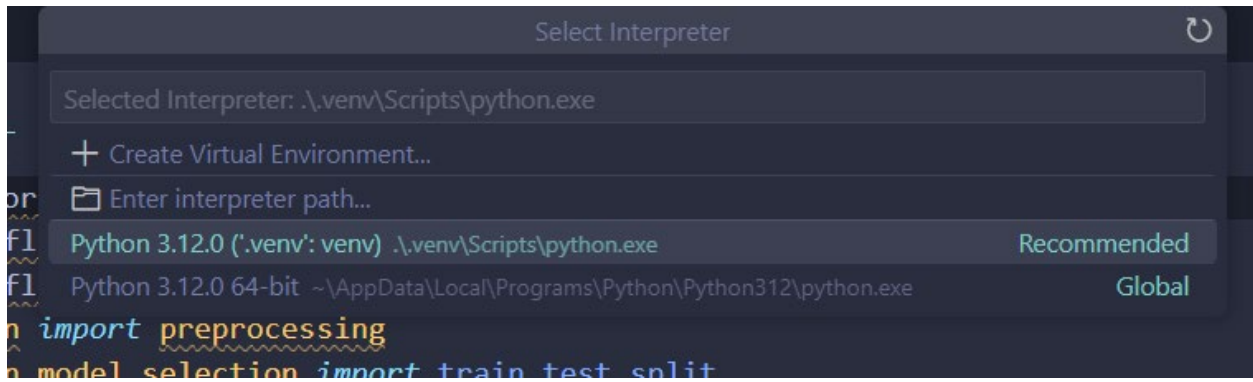


# Attempt Summary

## Setting up Virtual Environment

```
PS D:\Swinburne\Year 2 - Sem 2\Intelligent Systems\Stock Prediction> python3 -m venv .venv
```



# Creating the Requirements.txt

```
[notice] A new release of pip is available: 23.2.1 -> 24.2
[notice] To update, run: python.exe -m pip install --upgrade pip
PS D:\Swinburne\Year 2 - Sem 2\Intelligent Systems\Stock Prediction> pip3 install -r requirements.txt
Requirement already satisfied: scikit-learn in d:\swinburne\year 2 - sem 2\intelligent systems\stock prediction\venv\lib\site-packages (from -r requirements.txt (line 1)) (1.5.1)
Requirement already satisfied: tensorflow in d:\swinburne\year 2 - sem 2\intelligent systems\stock prediction\venv\lib\site-packages (from -r requirements.txt (line 2)) (2.17.0)
Requirement already satisfied: matplotlib in d:\swinburne\year 2 - sem 2\intelligent systems\stock prediction\venv\lib\site-packages (from -r requirements.txt (line 3)) (3.9.2)
Requirement already satisfied: numpy in d:\swinburne\year 2 - sem 2\intelligent systems\stock prediction\venv\lib\site-packages (from -r requirements.txt (line 4)) (1.26.4)
Requirement already satisfied: pandas in d:\swinburne\year 2 - sem 2\intelligent systems\stock prediction\venv\lib\site-packages (from -r requirements.txt (line 5)) (2.2.2)
Requirement already satisfied: yahoo_fin in d:\swinburne\year 2 - sem 2\intelligent systems\stock prediction\venv\lib\site-packages (from -r requirements.txt (line 6)) (0.8.9.1)
Requirement already satisfied: scipy<=1.6.0 in d:\swinburne\year 2 - sem 2\intelligent systems\stock prediction\venv\lib\site-packages (from scikit-learn->-r requirements.txt (line 1)) (1.14.0)
Requirement already satisfied: joblib<=1.2.0 in d:\swinburne\year 2 - sem 2\intelligent systems\stock prediction\venv\lib\site-packages (from scikit-learn->-r requirements.txt (line 1)) (1.4.2)
Requirement already satisfied: threadpoolctl<=3.1.0 in d:\swinburne\year 2 - sem 2\intelligent systems\stock prediction\venv\lib\site-packages (from scikit-learn->-r requirements.txt (line 1)) (3.5.0)
```

```
Requirement already satisfied: lxml<=2.1 in d:\swinburne\year 2 - sem 2\intelligent systems\stock prediction\venv\lib\site-packages (from pyquery->requests-html->yahoo_fin->-r requirements.txt (line 6)) (5.3.0)
Requirement already satisfied: cssselect<=1.2.0 in d:\swinburne\year 2 - sem 2\intelligent systems\stock prediction\venv\lib\site-packages (from pyquery->requests-html->yahoo_fin->-r requirements.txt (line 6)) (1.2.0)
Requirement already satisfied: zipp<=0.5 in d:\swinburne\year 2 - sem 2\intelligent systems\stock prediction\venv\lib\site-packages (from importlib-metadata<=1.4->pyppeteer<=0.0.14->requests-html->yahoo_fin->-r requirements.txt (line 6)) (3.20.0)
Requirement already satisfied: colorama in d:\swinburne\year 2 - sem 2\intelligent systems\stock prediction\venv\lib\site-packages (from tqdm<5.0.0,>=4.42.1->pyppeteer<=0.0.14->requests-html->yahoo_fin->-r requirements.txt (line 6)) (0.4.6)
Requirement already satisfied: MarkupSafe<=2.1.1 in d:\swinburne\year 2 - sem 2\intelligent systems\stock prediction\venv\lib\site-packages (from werkzeug<=1.0.1->tensorflow-intel<=2.17.0->tensorflow->-r requirements.txt (line 2)) (2.1.5)
Requirement already satisfied: soupsieve<1.2 in d:\swinburne\year 2 - sem 2\intelligent systems\stock prediction\venv\lib\site-packages (from BeautifulSoup4->bs4->requests-html->yahoo_fin->-r requirements.txt (line 6)) (2.6)
Requirement already satisfied: markdown-it-py<=2.2.0 in d:\swinburne\year 2 - sem 2\intelligent systems\stock prediction\venv\lib\site-packages (from rich->keras<=3.2.0->tensorflow-intel==2.17.0->tensorflow->-r requirements.txt (line 2)) (3.0.0)
Requirement already satisfied: pygments<3.0.0,>=2.13.0 in d:\swinburne\year 2 - sem 2\intelligent systems\stock prediction\venv\lib\site-packages (from rich->keras<=3.2.0->tensorflow-intel==2.17.0->tensorflow->-r requirements.txt (line 2)) (2.18.0)
Requirement already satisfied: mdurl<=0.1 in d:\swinburne\year 2 - sem 2\intelligent systems\stock prediction\venv\lib\site-packages (from markdown-it-py<=2.2.0->rich->keras<=3.2.0->tensorflow-intel==2.17.0->tensorflow->-r requirements.txt (line 2)) (0.1.2)
```

```
[notice] A new release of pip is available: 23.2.1 -> 24.2
[notice] To update, run: python.exe -m pip install --upgrade pip
PS D:\Swinburne\Year 2 - Sem 2\Intelligent Systems\Stock Prediction>
```

# Fixing the Environment Variable Error

The screenshot shows a VS Code editor with a file named `stock_prediction.py` open. The script contains the following code:

```
1 import tensorflow as tf
2 from tensorflow.keras.models import Sequential
3 from tensorflow.keras.layers import LSTM, Dense, Dropout, Bidirectional
4 from sklearn import preprocessing
5 from sklearn.model_selection import train_test_split
6 from yahoo_fin import stock_info as si
7 from collections import deque
```

The terminal output shows the following messages:

```
PS D:\Swinburne\Year 2 - Sem 2\Intelligent Systems\Stock Prediction> python -u "d:\Swinburne\Year 2 - Sem 2\Intelligent Systems\Stock Prediction\stock_prediction.py"
2024-08-16 12:50:00.092165: I tensorflow/core/util/port.cc:153] oneDNN custom operations are on. You may see slightly different numerical results due to floating-point round-off errors from different computation orders. To turn them off, set the environment variable 'TF_ENABLE_ONEDNN_OPTS=0'.
2024-08-16 12:50:00.935185: I tensorflow/core/util/port.cc:153] oneDNN custom operations are on. You may see slightly different numerical results due to floating-point round-off errors from different computation orders. To turn them off, set the environment variable 'TF_ENABLE_ONEDNN_OPTS=0'.
Warning - Certain functionality requires requests_html, which is not installed.

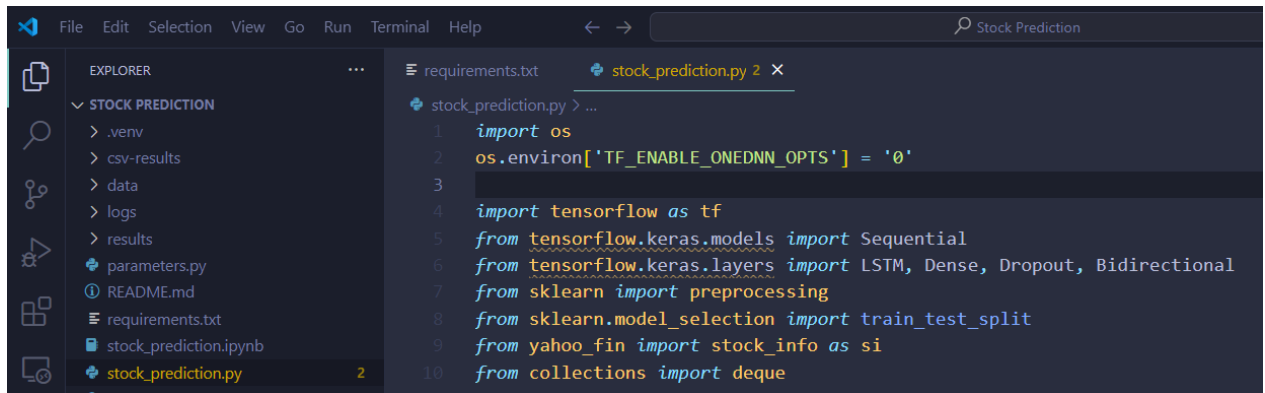
Install using:
pip install requests_html

After installation, you may have to restart your Python session.
PS D:\Swinburne\Year 2 - Sem 2\Intelligent Systems\Stock Prediction> python -u "d:\Swinburne\Year 2 - Sem 2\Intelligent Systems\Stock Prediction\stock_prediction.py"
2024-08-16 12:50:02.809051: I tensorflow/core/util/port.cc:153] oneDNN custom operations are on. You may see slightly different numerical results due to floating-point round-off errors from different computation orders. To turn them off, set the environment variable 'TF_ENABLE_ONEDNN_OPTS=0'.
2024-08-16 12:50:04.587648: I tensorflow/core/util/port.cc:153] oneDNN custom operations are on. You may see slightly different numerical results due to floating-point round-off errors from different computation orders. To turn them off, set the environment variable 'TF_ENABLE_ONEDNN_OPTS=0'.
Warning - Certain functionality requires requests_html, which is not installed.

Install using:
pip install requests_html

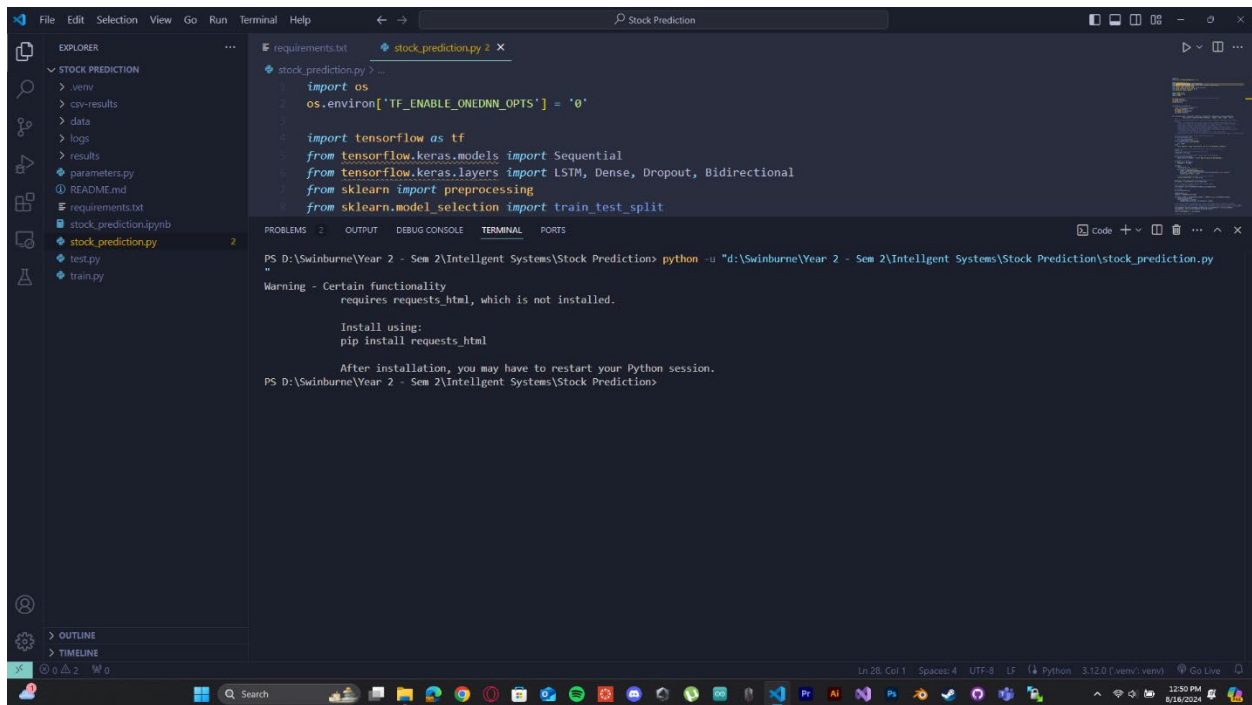
After installation, you may have to restart your Python session.
PS D:\Swinburne\Year 2 - Sem 2\Intelligent Systems\Stock Prediction>
```

By Importing the library “OS” we can change the environment variable in runtime



```
File Edit Selection View Go Run Terminal Help
requirements.txt stock_prediction.py 2 X
stock_prediction.py > ...
1 import os
2 os.environ['TF_ENABLE_ONEDNN_OPTS'] = '0'
3
4 import tensorflow as tf
5 from tensorflow.keras.models import Sequential
6 from tensorflow.keras.layers import LSTM, Dense, Dropout, Bidirectional
7 from sklearn import preprocessing
8 from sklearn.model_selection import train_test_split
9 from yahoo_fin import stock_info as si
10 from collections import deque
```

Error fixed :-



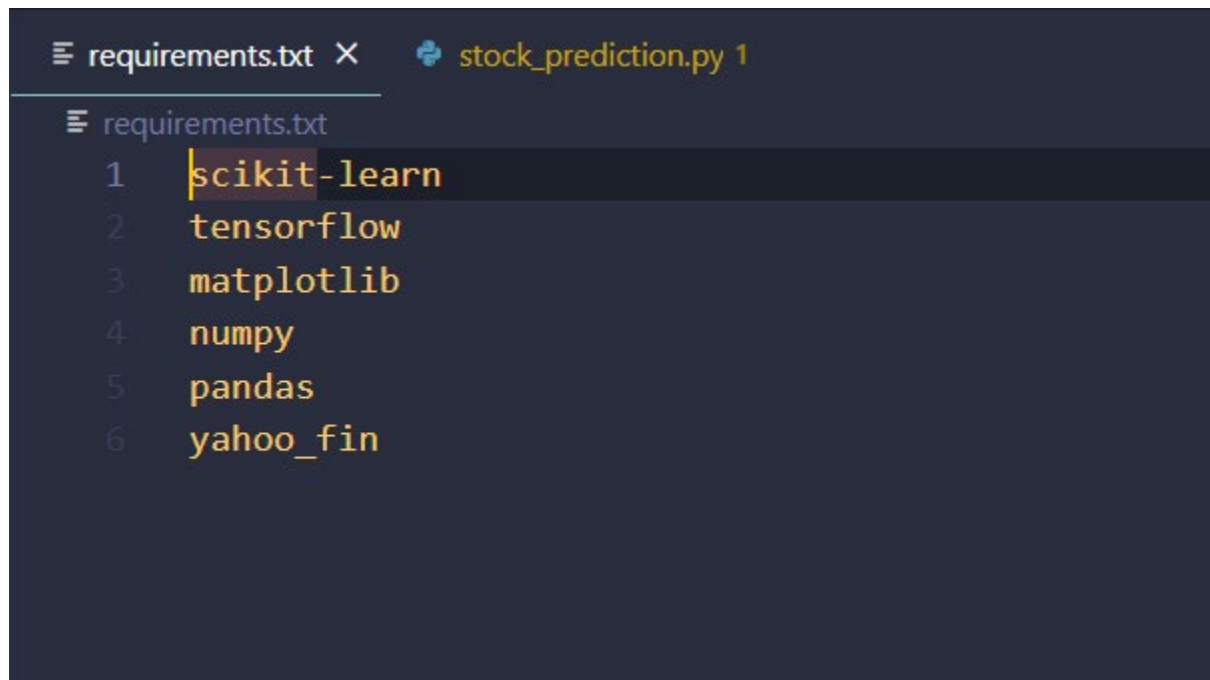
```
File Edit Selection View Go Run Terminal Help
requirements.txt stock_prediction.py 2 X
stock_prediction.py > ...
1 import os
2 os.environ['TF_ENABLE_ONEDNN_OPTS'] = '0'
3
4 import tensorflow as tf
5 from tensorflow.keras.models import Sequential
6 from tensorflow.keras.layers import LSTM, Dense, Dropout, Bidirectional
7 from sklearn import preprocessing
8 from sklearn.model_selection import train_test_split

PROBLEMS 2 OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS D:\Swinburne\Year 2 - Sem 2\Intelligent Systems\Stock Prediction> python -u "d:\Swinburne\Year 2 - Sem 2\Intelligent Systems\Stock Prediction\stock_prediction.py"
Warning - Certain functionality
requires requests_html, which is not installed.

Install using:
pip install requests_html

After installation, you may have to restart your Python session.
PS D:\Swinburne\Year 2 - Sem 2\Intelligent Systems\Stock Prediction>
```

## Requirements file

A screenshot of a code editor with a dark theme. The top bar shows two tabs: 'requirements.txt' with a close button (X) and 'stock\_prediction.py' with a Python icon and line number '1'. The 'requirements.txt' tab is active, showing a list of dependencies. The text is as follows:

```
1 |scikit-learn
2  tensorflow
3  matplotlib
4  numpy
5  pandas
6  yahoo_fin
```

I have changed 'sklearn' to 'scikit-learn' it was recommended that we use it.