## Tensorflow lesson lab

For learning Tensorflow lab.

#### Install

### Supported Python version

- Python version used in this project: 3.5+

#### Libraries used

- Pandas-1.0.1
- Numpy-1.16.4
- TensorFlow-CPU

# **Quick Start**

python main.py

# Lab Description

#### – Lab 01 –

- 1. Create simple model to demonstrate tensorflow working flow.
- 2. Train a model to preset linear formula. [y = 9.5\*x + 2.7].

#### - Lab 02 -

- 1. Create simple model to demonstrate tensorflow working flow.
- 2. Train a model to preset linear formula. [y = 9.5\*x + 2.7].
- 3. Use normalize methodology to scale(transform) data in range(-1, 1).
- 4. Use MSE as loss function to do training
- 5. Use the model trained during step 2 to predict 20 pair of data.
- 6. Use RMSE to verify the prediction results.

### - Lab 03 -

- 1. Extend the Lab 02, create more complex NN model.
- 2. Demonstrate that how to build multi-layer neural network.

## – Lab 04 –

- 1. Use tf saver module to demonstrate saving trained model as metadata file.
- $2.\,$  Use tf saver module to demonstrate restoring model from metadata file.
- Sample Project StockPredictor -
- To predict the stock close price of next day.