# Docker Environment Setup

Install Docker - Community Edition

* Un-Install old docker versions
  + sudo apt-get remove docker docker-engine
  + sudo apt-get update
* Install recommended extra packages
  + sudo apt-get install \

linux-image-extra-$(uname -r) \

linux-image-extra-virtual

* Set up Docker Repository
  + sudo apt-get install \

apt-transport-https \

ca-certificates \

curl \

software-properties-common

* + curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo apt-key add -
  + sudo apt-key fingerprint 0EBFCD88
    - Verify key fingerprint is:

9DC8 5822 9FC7 DD38 854A E2D8 8D81 803C 0EBF CD88

* + sudo add-apt-repository \

"deb [arch=amd64] https://download.docker.com/linux/ubuntu \

$(lsb\_release -cs) \

stable"

* Install Docker
  + sudo apt-get update
  + sudo apt-get install docker-ce
* Test Installation
  + docker run hello-world
* Reference
  + [Docker Installation](https://docs.docker.com/engine/installation/linux/ubuntu/#install-using-the-repository)

Install Docker Compose

* sudo pip install docker-compose
* Test Installation
  + docker-compose --version
  + docker-compose version 1.13.0, build 1719ceb

Install grive

* sudo add-apt-repository ppa: nilarimogard / webupd8 -y && sudo apt-get update
* sudo apt-get install grive

Initialize Google Drive on Linux Terminal

* cd
* mkdir Google\ Drive
* cd Google \ Drive
* grive -a
* Go to URL code displayed
* Choose your Gmail Drive to Syncronize
* Give access to view and manage your folder
* Copy authentication code
* Paste authentication code on Terminal
* Reference
  + [Initialization of Google Drive](https://www.youtube.com/watch?v=zqlEdnQB8Hc)

Setup Folder Structure

* Create Soft Link
  + ln -s Google\ Drive gdrive
  + cd gdrive

  
Illustration 1: Soft Link b/w Google Drive and gdrive

* mkdir MyNotebooks
* cd MyNotebooks
* Clone Repository
  + git clone https://github.com/ziff/internship2017.git
  + Ensure all files present in repository is copied to, home/shreenidhi/gdrive/MyNotebooks/internship2017
* Create Soft Link
  + ln -s /home/shreenidhi/gdrive/MyNotebooks/internship2017 notebooks

Illustration 2: Soft Link b/w internship2017 and notebooks

* *Use ls command to check soft link created*

Configure Environment Variable

* cd
* sudo -H gedit /etc/environment
* GDRIVE\_NOTEBOOKS\_DIRECTORY = /home/shreenidhi/gdrive/MyNotebooks/internship2017
  + don’t forget to change user name

Start Notebook Server

* docker-compose up -d
* docker-compose logs
* Open link found at end of previous command execution
* docker-compose down

Update Notebook Server

* docker pull ziff/notebook:latest
* Restart computer
* Start notebook server
* Run [Task\_1\_Basic\_CONVNET\_w\_Simplified\_MNIST.ipynb](https://github.com/ziff/internship2017/blob/master/Challenges/Task_1_Basic_CONVNET_w_Simplified_MNIST.ipynb) to verify installation

Install Package

* Go to home/shreenidhi/gdrive/MyNotebooks/internship2017/blob/master/docker/requirements.txt
* Write the names of packages you want in the file “requirements.txt”
* Save and exit file
* Ensure that no server is attached to docker (docker-compose down)
* Run docker-compose build (slow process)
* sudo reboot
* docker-compose up -d
* docker-compose logs
* Open link found at end of previous command execution
* Run related code and verify success of package installation
* docker-compose down