

Getting setup

```
yolsuh@lenovo: ~  
yolsuh@lenovo:~$ docker pull ubuntu:16.04  
16.04: Pulling from library/ubuntu  
Digest: sha256:0f71fa8d4d2d4292c3c617fda2b36f6dabe5c8b6e34c3dc5b0d17d4e704bd39  
Status: Image is up to date for ubuntu:16.04  
docker.io/library/ubuntu:16.04  
yolsuh@lenovo:~$
```

Modifying an image

```
yolsuh@lenovo:~$ docker run -it ubuntu:16.04 /bin/bash  
root@9087d96adeb7:/#  
root@9087d96adeb7:/#
```

```
root@9087d96adeb7:/# ping google.com  
bash: ping: command not found  
root@9087d96adeb7:/#
```

```
root@9087d96adeb7:/# apt-get update  
Get:1 http://security.ubuntu.com/ubuntu xenial-security InRelease  
Get:2 http://archive.ubuntu.com/ubuntu xenial InRelease [247 kB]  
Get:3 http://security.ubuntu.com/ubuntu xenial-security/main amd64 Packages  
Get:4 http://archive.ubuntu.com/ubuntu xenial-updates InRelease  
Get:5 http://archive.ubuntu.com/ubuntu xenial-backports InRelease  
Get:6 http://archive.ubuntu.com/ubuntu xenial/main amd64 Packages  
Get:7 http://security.ubuntu.com/ubuntu xenial-security/restricted amd64 Packages  
Get:8 http://security.ubuntu.com/ubuntu xenial-security/universe amd64 Packages  
Get:9 http://security.ubuntu.com/ubuntu xenial-security/multiverse amd64 Packages  
Get:10 http://archive.ubuntu.com/ubuntu xenial/restricted amd64 Packages  
Get:11 http://archive.ubuntu.com/ubuntu xenial/universe amd64 Packages  
Get:12 http://archive.ubuntu.com/ubuntu xenial/multiverse amd64 Packages  
Get:13 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 Packages  
Get:14 http://archive.ubuntu.com/ubuntu xenial-updates/restricted amd64 Packages  
Get:15 http://archive.ubuntu.com/ubuntu xenial-updates/universe amd64 Packages  
Get:16 http://archive.ubuntu.com/ubuntu xenial-updates/multiverse amd64 Packages  
Get:17 http://archive.ubuntu.com/ubuntu xenial-backports/main amd64 Packages  
Get:18 http://archive.ubuntu.com/ubuntu xenial-backports/universe amd64 Packages  
Fetched 19.3 MB in 1min 3s (303 kB/s)  
Reading package lists... Done  
root@9087d96adeb7:/#
```

```

root@9087d96adeb7:/# apt-get install iputils-ping
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  libffi6 libgmp10 libgnutls-openssl27 libgnutls30 libhogweed4 libidn11
  libnettle6 libp11-kit0 libtasn1-6
Suggested packages:
  gnutls-bin
The following NEW packages will be installed:
  iputils-ping libffi6 libgmp10 libgnutls-openssl27 libgnutls30 libhogwe
  libidn11 libnettle6 libp11-kit0 libtasn1-6
0 upgraded, 10 newly installed, 0 to remove and 0 not upgraded.
Need to get 1307 kB of archives.
After this operation, 3785 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://archive.ubuntu.com/ubuntu xenial/main amd64 libgmp10 amd64
Get:2 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libnet
Get:3 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libhog
Get:4 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libidn1
Get:5 http://archive.ubuntu.com/ubuntu xenial/main amd64 libffi6 amd64 3
Get:6 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libp11
Get:7 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libtasn
Get:8 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libgnut
Get:9 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 libgnut
Get:10 http://archive.ubuntu.com/ubuntu xenial/main amd64 iputils-ping a
Fetched 1307 kB in 6s (200 kB/s)
debconf: delaying package configuration, since apt-utils is not install

```

```

root@9087d96adeb7:/# ping google.com
PING google.com (173.194.222.138) 56(84) bytes of data:
64 bytes from 173.194.222.138: icmp_seq=1 ttl=37 time=172 ms
64 bytes from 173.194.222.138: icmp_seq=2 ttl=37 time=83.8 ms
64 bytes from 173.194.222.138: icmp_seq=3 ttl=37 time=106 ms
64 bytes from 173.194.222.138: icmp_seq=4 ttl=37 time=88.3 ms
64 bytes from 173.194.222.138: icmp_seq=5 ttl=37 time=95.8 ms
^C
--- google.com ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4002ms
rtt min/avg/max/mdev = 83.809/109.341/172.599/32.514 ms
root@9087d96adeb7:/#

```

Committing changes

```
yolsuh@lenovo: ~
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS
9087d96adeb7   ubuntu:16.04   "/bin/bash"             9 minutes ago   Exit
2521ac508c14   ubuntu:16.04   "/bin/bash"             22 hours ago   Exit
37f4ade21b36   ubuntu:16.04   "/bin/bash"             22 hours ago   Exit
35cc492a5b75   ubuntu:16.04   "/bin/echo 'Hello Su..." 22 hours ago   Exit
357915e66e6c   ubuntu        "bash"                  2 weeks ago    Exit
2b1136999d40   ubuntu        "bash"                  2 weeks ago    Exit
ef10ceca9a09   suhrab        "docker-entrypoint.s..." 2 weeks ago    Exit
5401d6509556   docker/getting-started "/docker-entrypoint...." 2 weeks ago    Exit
yolsuh@lenovo:~$
```

```
yolsuh@lenovo:~$ docker commit --help

Usage:  docker commit [OPTIONS] CONTAINER [REPOSITORY[:TAG]]

Create a new image from a container's changes

Options:
  -a, --author string      Author (e.g., "John Hannibal Smith
                           <hannibal@a-team.com>")
  -c, --change list        Apply Dockerfile instruction to the created image
  -m, --message string     Commit message
  -p, --pause              Pause container during commit (default true)
yolsuh@lenovo:~$
```

```
yolsuh@lenovo:~$ docker commit -a 'David Elner' -m 'Added ping utility.' 9087 delner/ping
sha256:d46e2809eed30989081eb42533b81623998f001ea598f3cd8e0a6c80420f7944
yolsuh@lenovo:~$ docker images
REPOSITORY          TAG         IMAGE ID      CREATED        SIZE
delner/ping         latest     d46e2809eed3  25 seconds ago 170MB
suhrab              latest     f06eadf1e89b  2 weeks ago   168MB
ubuntu              latest     2b4cba85892a  3 weeks ago   72.8MB
docker/getting-started latest     bd9a9f733898  6 weeks ago   28.8MB
ubuntu              16.04     b6f507652425  6 months ago  135MB
yolsuh@lenovo:~$
```

```
yolsuh@lenovo:~$ docker run -it --rm delner/ping /bin/bash
root@97e1830d3351:/# ping google.com
PING google.com (173.194.222.139) 56(84) bytes of data:
64 bytes from 173.194.222.139: icmp_seq=1 ttl=37 time=80.9 ms
64 bytes from 173.194.222.139: icmp_seq=2 ttl=37 time=85.7 ms
64 bytes from 173.194.222.139: icmp_seq=3 ttl=37 time=83.6 ms
64 bytes from 173.194.222.139: icmp_seq=4 ttl=37 time=84.3 ms
64 bytes from 173.194.222.139: icmp_seq=5 ttl=37 time=82.9 ms
64 bytes from 173.194.222.139: icmp_seq=6 ttl=37 time=83.9 ms
^C
--- google.com ping statistics ---
6 packets transmitted, 6 received, 0% packet loss, time 5007ms
rtt min/avg/max/mdev = 80.932/83.601/85.750/1.493 ms
root@97e1830d3351:/#
```