Task 2: Changing images

- To start the container with /bin/bash, run the command docker run -it <image_name> /bin/bash. Once inside the container's terminal, update the software list using the command apt-get update. After that, we can install the ping command using apt-get install iputils-ping and then run ping command to test it.

```
ankit@sf-cpu-082:~/Documents/Assignment/Docker/docker-training$ docker run -it ubuntu
root@16362eab9706:/# apt-get update
Get:1 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Get:2 http://archive.ubuntu.com/ubuntu jammy InRelease [270 kB]
Get:3 http://security.ubuntu.com/ubuntu jammy-security/main amd64 Packages [959 kB]
Get:4 http://archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]
Get:5 http://archive.ubuntu.com/ubuntu jammy-backports InRelease [108 kB]
Get:6 http://security.ubuntu.com/ubuntu jammy-security/restricted amd64 Packages [1000 kB]
Get:7 http://archive.ubuntu.com/ubuntu jammy/universe amd64 Packages [17.5 MB]
Get:8 http://security.ubuntu.com/ubuntu jammy-security/multiverse amd64 Packages [23.2 kB]
Get:9 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 Packages [911 kB]
Get:10 http://archive.ubuntu.com/ubuntu jammy/main amd64 Packages [1792 kB]
Get:11 http://archive.ubuntu.com/ubuntu jammy/multiverse amd64 Packages [266 kB]
Get:12 http://archive.ubuntu.com/ubuntu jammy/restricted amd64 Packages [164 kB]
Get:13 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [1301 kB]
Get:14 http://archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [1154 kB]
Get:15 http://archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 Packages [1054 kB]
Get:16 http://archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 Packages [28.6 kB]
Get:17 http://archive.ubuntu.com/ubuntu jammy-backports/main amd64 Packages [49.4 kB]
Get:18 http://archive.ubuntu.com/ubuntu jammy-backports/universe amd64 Packages [25.6 kB]
Fetched 26.8 MB in 11s (2346 kB/s)
Reading package lists... Done
```

```
root@16362eab9706:/# apt-get install -y iputils-ping
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  libcap2-bin libpam-cap
The following NEW packages will be installed:
  iputils-ping libcap2-bin libpam-cap
0 upgraded, 3 newly installed, 0 to remove and 4 not upgraded.
Need to get 76.8 kB of archives.
After this operation, 280 kB of additional disk space will be used.
Get:1 http://archive.ubuntu.com/ubuntu jammy/main amd64 libcap2-bin amd64 1:2.44-1build3 [26.0 kB]
Get:2 http://archive.ubuntu.com/ubuntu jammy/main amd64 iputils-ping amd64 3:20211215-1 [42.9 kB]
Get:3 http://archive.ubuntu.com/ubuntu jammy/main amd64 libpam-cap amd64 1:2.44-1build3 [7932 B]
Fetched 76.8 kB in 1s (55.5 kB/s)
```

- Finally, we should be able to use ping.Ping your favorite website. When you've seen enough, Ctrl+C to interrupt, then exit the container.

```
root@16362eab9706:/# ping google.com
PING google.com (142.250.192.14) 56(84) bytes of data.
64 bytes from bom12s14-in-f14.1e100.net (142.250.192.14): icmp_seq=1 ttl=116 time=35.0 ms
64 bytes from bom12s14-in-f14.1e100.net (142.250.192.14): icmp_seq=2 ttl=116 time=37.0 ms
64 bytes from bom12s14-in-f14.1e100.net (142.250.192.14): icmp_seq=3 ttl=116 time=37.8 ms
64 bytes from bom12s14-in-f14.1e100.net (142.250.192.14): icmp_seq=4 ttl=116 time=35.7 ms
64 bytes from bom12s14-in-f14.1e100.net (142.250.192.14): icmp_seq=5 ttl=116 time=36.8 ms
64 bytes from bom12s14-in-f14.1e100.net (142.250.192.14): icmp_seq=8 ttl=116 time=45.7 ms
64 bytes from bom12s14-in-f14.1e100.net (142.250.192.14): icmp_seq=9 ttl=116 time=40.0 ms
```

- To find the container ID, you can run the command docker ps -a. Once you have the container ID, you can create a new image using docker commit command. For example, docker commit <container_id> <DockerHub_username>/ping. Don't forget to add the author and commit message in the command.

- After creating the new image, you can check it in the list of images using the command docker images.

- To run the new image in a new container, use the docker run command followed by the name of the image. For example, docker run <DockerHub_username>/ping. This will start a new container with the new image and you can test the ping command inside it.