**Guided Exercise: 01**

1. Open a terminal on base machine and start a container by using the image available at httpd:2.4. the -p option allows you to specify a redirect port. In the case, Docker forwards incoming request on TCP port 8180 to the TCP port 8080.
2. Create an HTML page on the official-httpd container.
   1. Access the shell of the container by using the exec option and create an html page.
   2. Exit the container.
   3. Ensure that the HTML file is reachable from the base machine VM by using curl command.
3. Examine the differences in the container between the image and the new layer created by the container. To do so, use the diff option.
4. Create a new image with the changes created by the running container.
   1. Stop the official-httpd container.
   2. Commit the change to a new container image. Use your name as the author of the changes.
   3. List the available container images.
   4. The new container image has neither a name, as listed in the REPOSITORY column, nor a tag. Tag the image with a custom name of do180/custom-httpd.
   5. List the available container image again to ensure that the name and tag were applied to the correct image.
5. Publish the saved container image to the Docker registry.
   1. To tag the image with the registry host name and port.
   2. Run the docker image command to ensure that the new name has been added to the cache.
   3. Publish the image to the private registry on hub.docker.com
6. Create a container from the newly published image.
   1. Use the docker run command to start a new container. Use do180/custom-httpd:v1.0 as the base image.
   2. Use the curl to access the HTML page. Make use to use the port 8280.

Curl <http://localhost:8280/do180.html>.

1. Delete the containers and images created in the exercise.
   1. Use the docker stop command to stop the running container.
   2. Remove the container image
   3. Delete the exported container image.
   4. Remove the committed container image.