Docker Tasks

First Task

1. Create a docker container using busybox.

```
a21braispn@a01eql21:~$ docker run -it busybox:1.37
/ # ls
bin     etc     lib     proc    sys     usr
dev     home    lib64   root    tmp     var
```

2. Create two files within busybox.

```
/ # touch a.txt
/ # touch b.txt
/ # ls
a.txt   bin     etc     lib     proc    sys     usr
b.txt   dev     home    lib64   root    tmp     var
```

3. Create a new image with the updated container. Call this image your_user/busybox.

```
a21braispn@a01eql21:~$ docker commit a29324d10423 a21braispn/busybox
sha256:15a48081e980a78572d14660d7456f0b13fea0394c7c9f3431d6f43255d23b8f
a21braispn@a01eql21:~$ docker images
REPOSITORY                  TAG        IMAGE ID        CREATED         SIZE
a21braispn/busybox          latest     15a48081e980    18 seconds ago  4.43MB
my_dockerhub_name/debian    latest     c417dfa05590    25 hours ago    320MB
my_dockerhub_name/debian    1.00       15bf4655f9c7    25 hours ago    275MB
debian                      12-slim    7b234376c422    11 days ago     74.8MB
debian                      latest     999ffdddc152    11 days ago     120MB
busybox                     1.37       0ed463b26dae    11 months ago   4.43MB
tomcat                      8.0        ef6a7c98d192    7 years ago     356MB
```

4. Create and run a container using this new image. Connect to this container and check that the files you had created are in this image.

```
a21braispn@a01eql21:~$ docker run -it a21braispn/busybox:latest
/ # ls
a.txt   bin     etc     lib     proc    sys     usr
b.txt   dev     home    lib64   root    tmp     var
```

5. Check the images and containers running on your system.

```
a21braispn@a01eql21:~$ docker ps -a
CONTAINER ID   IMAGE                            COMMAND            CREATED              STATUS                     PORTS     NAMES
b0074ead65e4   a21braispn/busybox:latest        "sh"               About a minute ago   Exited (0) 7 seconds ago             dreamy_greider
a29324d10423   busybox:1.37                     "sh"               9 minutes ago        Exited (0) 7 minutes ago             pensive_spence
64a7e273fea9   my_dockerhub_name/debian         "/bin/bash"        38 minutes ago       Exited (0) 36 minutes ago            dazzling_liskov
cf3a69ae4903   my_dockerhub_name/debian         "/bin/bash"        39 minutes ago       Exited (0) 39 minutes ago            gallant_zhukovsky
dcf6322a7ff6   my_dockerhub_name/debian         "/bin/bash"        40 minutes ago       Exited (0) 39 minutes ago            stoic_mclean
fe81d0ada08b   my_dockerhub_name/debian         "/bin/bash"        25 hours ago         Exited (0) 25 hours ago              recursing_roentgen
3c4e40e7f5eb   my_dockerhub_name/debian:1.00    "bash"             25 hours ago         Exited (0) 25 hours ago              jolly_haibt
c543ca2b7ce6   debian:latest                    "bash"             25 hours ago         Exited (127) 25 hours ago            cool_mclaren
fe4143cf64ff   debian:12-slim                   "bash"             4 days ago           Exited (127) 4 days ago              cool_maxwell
1f684074db70   busybox:1.37                     "sh"               4 days ago           Exited (0) 4 days ago                serene_wilbur
5c6d0d7a81e1   busybox:1.37                     "sh"               4 days ago           Exited (0) 4 days ago                nifty_shtern
03a48a361598   tomcat:8.0                       "catalina.sh run"  4 days ago           Exited (143) 3 days ago              vigilant_euclid
a21braispn@a01eql21:~$ docker images
REPOSITORY                TAG       IMAGE ID       CREATED         SIZE
a21braispn/busybox        latest    15a48081e980   4 minutes ago   4.43MB
my_dockerhub_name/debian  latest    c417dfa05590   25 hours ago    320MB
my_dockerhub_name/debian  1.00      15bf4655f9c7   25 hours ago    275MB
debian                    12-slim   7b234376c422   11 days ago     74.8MB
debian                    latest    999ffdddc152   11 days ago     120MB
busybox                   1.37      0ed463b26dae   11 months ago   4.43MB
tomcat                    8.0       ef6a7c98d192   7 years ago     356MB
a21braispn@a01eql21:~$
```

6. Delete the image and the container.

```
a21braispn@a01eql21:~$ docker rm b0074ead65e4
b0074ead65e4
a21braispn@a01eql21:~$ docker ps -a
CONTAINER ID   IMAGE                            COMMAND            CREATED          STATUS                     PORTS     NAMES
a29324d10423   busybox:1.37                     "sh"               11 minutes ago   Exited (0) 9 minutes ago             pensive_spence
64a7e273fea9   my_dockerhub_name/debian         "/bin/bash"        39 minutes ago   Exited (0) 38 minutes ago            dazzling_liskov
cf3a69ae4903   my_dockerhub_name/debian         "/bin/bash"        41 minutes ago   Exited (0) 41 minutes ago            gallant_zhukovsky
dcf6322a7ff6   my_dockerhub_name/debian         "/bin/bash"        42 minutes ago   Exited (0) 41 minutes ago            stoic_mclean
fe81d0ada08b   my_dockerhub_name/debian         "/bin/bash"        25 hours ago     Exited (0) 25 hours ago              recursing_roentgen
3c4e40e7f5eb   my_dockerhub_name/debian:1.00    "bash"             25 hours ago     Exited (0) 25 hours ago              jolly_haibt
c543ca2b7ce6   debian:latest                    "bash"             25 hours ago     Exited (127) 25 hours ago            cool_mclaren
fe4143cf64ff   debian:12-slim                   "bash"             4 days ago       Exited (127) 4 days ago              cool_maxwell
1f684074db70   busybox:1.37                     "sh"               4 days ago       Exited (0) 4 days ago                serene_wilbur
5c6d0d7a81e1   busybox:1.37                     "sh"               4 days ago       Exited (0) 4 days ago                nifty_shtern
03a48a361598   tomcat:8.0                       "catalina.sh run"  4 days ago       Exited (143) 3 days ago              vigilant_euclid
a21braispn@a01eql21:~$ docker rmi 15a48081e980
Untagged: a21braispn/busybox:latest
Deleted: sha256:15a48081e980a78572d14660d7456f0b13fea0394c7c9f3431d6f43255d23b8f
Deleted: sha256:9af7f4d9f30f53cf934587f13f190c7c37d0530faff445bfb32ff36d2a89b5ab
a21braispn@a01eql21:~$ docker images
REPOSITORY                TAG       IMAGE ID       CREATED         SIZE
my_dockerhub_name/debian  latest    c417dfa05590   25 hours ago    320MB
my_dockerhub_name/debian  1.00      15bf4655f9c7   25 hours ago    275MB
debian                    12-slim   7b234376c422   11 days ago     74.8MB
debian                    latest    999ffdddc152   11 days ago     120MB
busybox                   1.37      0ed463b26dae   11 months ago   4.43MB
tomcat                    8.0       ef6a7c98d192   7 years ago     356MB
a21braispn@a01eql21:~$
```

Second Task

7. Create a Dockerfile that does the previous tasks.

FROM busybox:1.37

RUN touch /a.txt /b.txt

CMD ["sh"]

8. Create a new image called your_user/busybox and run the container.

```
a21braispn@a01eql21:~$ docker build -t a21braispn/busybox .
[+] Building 0.2s (6/6) FINISHED
 => [internal] load build definition from Dockerfile
 => => transferring dockerfile: 91B
 => [internal] load metadata for docker.io/library/busybox:1.37
 => [internal] load .dockerignore
 => => transferring context: 2B
 => CACHED [1/2] FROM docker.io/library/busybox:1.37
 => [2/2] RUN touch /a.txt /b.txt
 => exporting to image
 => => exporting layers
 => => writing image sha256:ede0f5fbce5b0543f5469ee0b00e28c4be128181dd724a7f7ab962146939e81c
 => => naming to docker.io/a21braispn/busybox
a21braispn@a01eql21:~$ docker run -it a21braispn/busybox
/ # ls
a.txt  b.txt  bin    dev    etc    home   lib    lib64  proc   root   sys    tmp    usr    var
/ #
```

9. Check the images and containers running on your system.

```
a21braispn@a01eql21:~$ docker ps -a
CONTAINER ID   IMAGE                          COMMAND             CREATED           STATUS
     PORTS       NAMES
2ce17771bb7b   a21braispn/busybox             "sh"                About a minute ago  Exited (0) 45 seconds ago
               adoring_jones
08bc90d2a099   c6aa6038450f                   "sh"                2 minutes ago       Exited (130) About a minute ag
o              stoic_elgamal
898a802899f8   c6aa6038450f                   "sh"                2 minutes ago       Exited (0) 2 minutes ago
               elastic_austin
cc1f41bdcbdd   c6aa6038450f                   "/bin/bash"         4 minutes ago       Created
               charming_cartwright
a29324d10423   busybox:1.37                   "sh"                24 minutes ago      Exited (0) 22 minutes ago
               pensive_spence
64a7e273fea9   my_dockerhub_name/debian       "/bin/bash"         53 minutes ago      Exited (0) 51 minutes ago
               dazzling_liskov
cf3a69ae4903   my_dockerhub_name/debian       "/bin/bash"         54 minutes ago      Exited (0) 54 minutes ago
               gallant_zhukovsky
dcf6322a7ff6   my_dockerhub_name/debian       "/bin/bash"         55 minutes ago      Exited (0) 54 minutes ago
               stoic_mclean
fe81d0ada08b   my_dockerhub_name/debian       "/bin/bash"         25 hours ago        Exited (0) 25 hours ago
               recursing_roentgen
3c4e40e7f5eb   my_dockerhub_name/debian:1.00  "bash"              25 hours ago        Exited (0) 25 hours ago
               jolly_haibt
c543ca2b7ce6   debian:latest                  "bash"              25 hours ago        Exited (127) 25 hours ago
               cool_mclaren
fe4143cf64ff   debian:12-slim                 "bash"              4 days ago          Exited (127) 4 days ago
               cool_maxwell
1f684074db70   busybox:1.37                   "sh"                4 days ago          Exited (0) 4 days ago
               serene_wilbur
5c6d0d7a81e1   busybox:1.37                   "sh"                4 days ago          Exited (0) 4 days ago
               nifty_shtern
03a48a361598   tomcat:8.0                     "catalina.sh run"   4 days ago          Exited (143) 3 days ago
               vigilant_euclid
a21braispn@a01eql21:~$ docker images
REPOSITORY               TAG        IMAGE ID       CREATED            SIZE
a21braispn/busybox       latest     ede0f5fbce5b   About a minute ago 4.43MB
<none>                   <none>     c6aa6038450f   5 minutes ago      4.43MB
my_dockerhub_name/debian latest     c417dfa05590   25 hours ago       320MB
my_dockerhub_name/debian 1.00       15bf4655f9c7   25 hours ago       275MB
debian                   12-slim    7b234376c422   11 days ago        74.8MB
debian                   latest     999ffdddc152   11 days ago        120MB
busybox                  1.37       0ed463b26dae   11 months ago      4.43MB
tomcat                   8.0        ef6a7c98d192   7 years ago        356MB
a21braispn@a01eql21:~$
```

10. Delete the image and the container.

```
a21braispn@a01eql21:~$ docker rm 2ce17771bb7
2ce17771bb7
a21braispn@a01eql21:~$ docker rmi ede0f5fbce5b
Untagged: a21braispn/busybox:latest
Deleted: sha256:ede0f5fbce5b0543f5469ee0b00e28c4be128181dd724a7f7ab962146939e81c
a21braispn@a01eql21:~$
```