

1.1

Start 3 containers from image that does not automatically exit, such as nginx, detached.

```
[risa:~ Risa$ docker ps -a
CONTAINER ID        IMAGE               COMMAND             CREATED
STATUS             PORTS              NAMES
8f546e49d344       nginx              "nginx -g 'daemon of..." 26 seconds ago
Up 24 seconds      80/tcp            objective_davinci
4c9f822cb026       nginx              "nginx -g 'daemon of..." 2 minutes ago
Up 2 minutes       80/tcp            practical_knuth
e250e6ec328a       nginx              "nginx -g 'daemon of..." 25 minutes ago
Up 25 minutes      80/tcp            suspicious_saha
risa:~ Risa$
```

Stop 2 of the containers leaving 1 up.

```
[risa:~ Risa$ docker ps -a
CONTAINER ID        IMAGE               COMMAND             CREATED
STATUS             PORTS              NAMES
8f546e49d344       nginx              "nginx -g 'daemon of..." About a minute
ago Exited (0) 5 seconds ago            objective_davinci
4c9f822cb026       nginx              "nginx -g 'daemon of..." 3 minutes ago
Exited (0) 5 seconds ago                practical_knuth
e250e6ec328a       nginx              "nginx -g 'daemon of..." 26 minutes ago
Up 26 minutes      80/tcp            suspicious_saha
risa:~ Risa$
```

1.2

We've left containers and a image that won't be used anymore and are taking space, as `docker ps -a` and `docker images` will reveal. Clean the docker daemon from all images and containers.

```
[risa:~ Risa$ docker stop e2
e2
[risa:~ Risa$ docker ps -a
CONTAINER ID        IMAGE               COMMAND             CREATED
STATUS             PORTS              NAMES
8f546e49d344       nginx              "nginx -g 'daemon of..." 8 minutes ago
Exited (0) 6 minutes ago            objective_davinci
4c9f822cb026       nginx              "nginx -g 'daemon of..." 10 minutes ago
Exited (0) 6 minutes ago                practical_knuth
e250e6ec328a       nginx              "nginx -g 'daemon of..." 33 minutes ago
Exited (0) 3 seconds ago            suspicious_saha
[risa:~ Risa$ docker container prune
WARNING! This will remove all stopped containers.
Are you sure you want to continue? [y/N] y
Deleted Containers:
8f546e49d344cf64faaed1342542b465fe6094b6fce5dc33fe2a1564e2146bfe
4c9f822cb026b3e43be27d3e9f4d14764e8cf8e7e6db10cd7bbf0707cdf40155
e250e6ec328a0b42ea8a7da1c6c5e7b786196f304ebc71f3e3174fff145206ba

Total reclaimed space: 0B
[risa:~ Risa$ docker ps -a
CONTAINER ID        IMAGE               COMMAND             CREATED
STATUS             PORTS              NAMES
risa:~ Risa$
```

```

[risa:~ Risa$ docker rmi nginx
Untagged: nginx:latest
Untagged: nginx@sha256:50cf965a6e08ec5784009d0fccb380fc479826b6e0e65684d9879170a
9df8566
Deleted: sha256:231d40e811cd970168fb0c4770f2161aa30b9ba6fe8e68527504df69643aa145
Deleted: sha256:dc8adf8fa0fc82a56c32efac9d0da5f84153888317c88ab55123d9e71777bc62
Deleted: sha256:77fcff986d3b13762e4777046b9210a109fda20cb261bd3bbe5d7161d4e73c8e
Deleted: sha256:831c5620387fb9efec59fc82a42b948546c6be601e3ab34a87108ecf852aa15f
[risa:~ Risa$ docker images
REPOSITORY          TAG                 IMAGE ID            CREATED
SIZE
[risa:~ Risa$ █

```

1.3

Submit the secret message and command(s) given to get it as your answer.

```

[risa:~ Risa$ docker run -it devopsdockeruh/pull_exercise
[Give me the password: basics
You found the correct password. Secret message is:
"This is the secret message"

```

1.4

Submit the secret message and command(s) given as your answer.

```
risa:~ Risa$ docker run devopsdockeruh/exec_bash_exercise
Unable to find image 'devopsdockeruh/exec_bash_exercise:latest' locally
latest: Pulling from devopsdockeruh/exec_bash_exercise
741437d977401: Pull complete
34d8874714d7: Pull complete
0a108aa26679: Pull complete
7f0334c36886: Pull complete
65c95cb8b3be: Pull complete
a36b708560f8: Pull complete
4090f912e6c7: Pull complete
ce5fe2607c2e: Pull complete
9400f5f657d6: Pull complete
c4919883f7fa: Pull complete
Digest: sha256:c463832132d1fb0b8b3b60348a6fc36fda7512a4ef2d1050e8bea7b6a6d7a2f3
Status: Downloaded newer image for devopsdockeruh/exec_bash_exercise:latest
(node:1) ExperimentalWarning: The fs.promises API is experimental
Wrote to file /usr/app/logs.txt
Wrote to file /usr/app/logs.txt
Wrote to file /usr/app/logs.txt
Wrote to file /usr/app/logs.txt
Wrote to file /usr/app/logs.txt
Wrote to file /usr/app/logs.txt
Wrote to file /usr/app/logs.txt
Wrote to file /usr/app/logs.txt
[Wrote to file /usr/app/logs.txt
Wrote to file /usr/app/logs.txt
Wrote to file /usr/app/logs.txt
Wrote to file /usr/app/logs.txt
Wrote to file /usr/app/logs.txt
Wrote to file /usr/app/logs.txt
Wrote to file /usr/app/logs.txt
Wrote to file /usr/app/logs.txt
Wrote to file /usr/app/logs.txt
Wrote to file /usr/app/logs.txt
Wrote to file /usr/app/logs.txt
Wrote to file /usr/app/logs.txt
Wrote to file /usr/app/logs.txt
Wrote to file /usr/app/logs.txt
Wrote to file /usr/app/logs.txt
Wrote to file /usr/app/logs.txt
^CClosing file
risa:~ Risa$ docker run -d devopsdockeruh/exec_bash_exercise
614d1da06183a176eadcf3aa20f0b69af7609cfa39dd2c3d2a3f8555136d7ad3
risa:~ Risa$ docker exec -it 61 bash
root@614d1da06183:/usr/app# tail -f ./logs.txt
Wed, 25 Dec 2019 16:47:11 GMT
Wed, 25 Dec 2019 16:47:14 GMT
Wed, 25 Dec 2019 16:47:17 GMT
Wed, 25 Dec 2019 16:47:20 GMT
Secret message is:
"Docker is easy"
Wed, 25 Dec 2019 16:47:26 GMT
Wed, 25 Dec 2019 16:47:29 GMT
Wed, 25 Dec 2019 16:47:32 GMT
Wed, 25 Dec 2019 16:47:35 GMT
Secret message is:
"Docker is easy"
Wed, 25 Dec 2019 16:47:41 GMT
Wed, 25 Dec 2019 16:47:44 GMT
Wed, 25 Dec 2019 16:47:47 GMT
^C
root@614d1da06183:/usr/app#
```

1.5

Start a ubuntu image with the process `sh -c 'echo "Input website:"; read website; echo "Searching.."; sleep 1; curl http://$website;'`

Solution:

```
docker run -it --name ex_1.5 ubuntu sh -c 'echo "install curl"; apt-get update && apt-get install -y curl; echo "Input website:"; read website; echo "Searching.."; sleep 1; curl http://$website;'
```

```
Unable to find image 'ubuntu:latest' locally
latest: Pulling from library/ubuntu
2746a4a261c9: Pull complete
4c1d20cdee96: Pull complete
0d3160e1d0de: Pull complete
c8e37668deea: Pull complete
Digest: sha256:250cc6f3f3fffc5cdaa9d8f4946ac79821aafb4d3afc93928f0de9336eba21aa4
Status: Downloaded newer image for ubuntu:latest
install curl
Get:1 http://archive.ubuntu.com/ubuntu bionic InRelease [242 kB]
Get:2 http://security.ubuntu.com/ubuntu bionic-security InRelease [88.7 kB]
Get:3 http://archive.ubuntu.com/ubuntu bionic-updates InRelease [88.7 kB]
Get:4 http://archive.ubuntu.com/ubuntu bionic-backports InRelease [74.6 kB]
Get:5 http://security.ubuntu.com/ubuntu bionic-security/main amd64 Packages [761 kB]
Get:6 http://archive.ubuntu.com/ubuntu bionic/universe amd64 Packages [11.3 MB]
Get:7 http://security.ubuntu.com/ubuntu bionic-security/multiverse amd64 Packages [6781 B]
Get:8 http://security.ubuntu.com/ubuntu bionic-security/restricted amd64 Packages [19.2 kB]
Get:9 http://security.ubuntu.com/ubuntu bionic-security/universe amd64 Packages [795 kB]
Get:10 http://archive.ubuntu.com/ubuntu bionic/multiverse amd64 Packages [186 kB]
Get:11 http://archive.ubuntu.com/ubuntu bionic/restricted amd64 Packages [13.5 kB]
Get:12 http://archive.ubuntu.com/ubuntu bionic/main amd64 Packages [1344 kB]
Get:13 http://archive.ubuntu.com/ubuntu bionic-updates/restricted amd64 Packages [32.7 kB]
Get:14 http://archive.ubuntu.com/ubuntu bionic-updates/main amd64 Packages [1057 kB]
Get:15 http://archive.ubuntu.com/ubuntu bionic-updates/universe amd64 Packages [1322 kB]
Get:16 http://archive.ubuntu.com/ubuntu bionic-updates/multiverse amd64 Packages [10.5 kB]
Get:17 http://archive.ubuntu.com/ubuntu bionic-backports/universe amd64 Packages [4244 B]
Get:18 http://archive.ubuntu.com/ubuntu bionic-backports/main amd64 Packages [2496 B]
Fetched 17.4 MB in 3s (5979 kB/s)
Reading package lists... Done
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  ca-certificates krb5-locales libasn1-8-heimdal libcurl4 libgssapi-krb5-2 libgssapi3-heimdal
  libhcrypto4-heimdal libheimbase1-heimdal libheimntlm0-heimdal libhx509-5-heimdal libk5crypto3
  libkeyutils1 libkrb5-26-heimdal libkrb5-3 libkrb5support0 libldap-2.4-2 libldap-common libnghttp2-14
  libpsl5 libroken18-heimdal librtmp1 libsasl2-2 libsasl2-modules libsasl2-modules-db libsqlite3-0 libssl1.1
  libwind0-heimdal openssl publicsuffix
Suggested packages:
  krb5-doc krb5-user libsasl2-modules-gssapi-mit | libsasl2-modules-gssapi-heimdal libsasl2-modules-ldap
  libsasl2-modules-otp libsasl2-modules-sql
```

The following NEW packages will be installed:

ca-certificates curl krb5-locales libasn1-8-heimdal libcurl4 libgssapi-krb5-2 libgssapi3-heimdal libhcrypto4-heimdal libheimbase1-heimdal libheimntlm0-heimdal libhx509-5-heimdal libk5crypto3 libkeyutils1 libkrb5-26-heimdal libkrb5-3

libkrb5support0 libldap-2.4-2 libldap-common libnghttp2-14 libpsl5 libroken18-heimdal librtmp1 libsasl2-2 libsasl2-modules libsasl2-modules-db libsqlite3-0 libssl1.1 libwind0-heimdal openssl publicsuffix

0 upgraded, 30 newly installed, 0 to remove and 0 not upgraded.

Need to get 4834 kB of archives.

After this operation, 14.8 MB of additional disk space will be used.

.....

Updating certificates in /etc/ssl/certs...

0 added, 0 removed; done.

Running hooks in /etc/ca-certificates/update.d...

done.

Input website:

helsinki.fi

Searching..

<!DOCTYPE HTML PUBLIC "-//IETF//DTD HTML 2.0//EN">

<html><head>

<title>301 Moved Permanently</title>

</head><body>

<h1>Moved Permanently</h1>

<p>The document has moved here.</p>

</body></html>

risa:~ Risa\$ docker images

REPOSITORY	TAG	IMAGE		
ID	CREATED	SIZE	STATUS	PORTS
NAMES				
ubuntu	latest	549b9b86cb8d	6 days ago	64.2MB