

For more details, please visit <https://support.apple.com/kb/HT208856>.

```
Altafs-MacBook-Pro:~ altafali$ docker run hello-world
Unable to find image 'hello-world:latest' locally
latest: Pulling from library/hello-world
c1ec31eb5944: Pull complete
Digest: sha256:4bd78111b6914a99dbc560e6a20eab57ff6655aea4a80c50b0c5491968cbc2e6
Status: Downloaded newer image for hello-world:latest
```

Hello from Docker!

This message shows that your installation appears to be working correctly.

To generate this message, Docker took the following steps:

1. The Docker client contacted the Docker daemon.
2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
(amd64)
3. The Docker daemon created a new container from that image which runs the executable that produces the output you are currently reading.
4. The Docker daemon streamed that output to the Docker client, which sent it to your terminal.

To try something more ambitious, you can run an Ubuntu container with:

```
$ docker run -it ubuntu bash
```

Share images, automate workflows, and more with a free Docker ID:

<https://hub.docker.com/>

For more examples and ideas, visit:

<https://docs.docker.com/get-started/>

```
Altafs-MacBook-Pro:~ altafali$
```

<https://docs.docker.com/get-started/>

```
Altafs-MacBook-Pro:~ altafali$ docker pull alpine
-bash: $: command not found
Altafs-MacBook-Pro:~ altafali$ docker pull alpine
Using default tag: latest
latest: Pulling from library/alpine
661ff4d9561a: Pull complete
Digest: sha256:51b67269f354137895d43f3b3d810bfacd3945438e94dc5ac55fdac340352f48
Status: Downloaded newer image for alpine:latest
docker.io/library/alpine:latest

What's Next?
  View a summary of image vulnerabilities and recommendations → docker scout quickview alpine
Altafs-MacBook-Pro:~ altafali$ docker images
REPOSITORY    TAG       IMAGE ID       CREATED        SIZE
alpine        latest   f8c20f8bbcb6   5 weeks ago   7.38MB
hello-world    latest   d2c94e268dc8   8 months ago  13.3kB
Altafs-MacBook-Pro:~ altafali$ docker run alpine ls -l
total 56
drwxr-xr-x 2 root root      4096 Dec 7 09:43 bin
drwxr-xr-x 5 root root      3408 Jan 14 22:26 dev
drwxr-xr-x 1 root root      4096 Jan 14 22:26 etc
drwxr-xr-x 2 root root      4096 Dec 7 09:43 home
drwxr-xr-x 7 root root      4096 Dec 7 09:43 lib
drwxr-xr-x 5 root root      4096 Dec 7 09:43 media
drwxr-xr-x 2 root root      4096 Dec 7 09:43 mnt
drwxr-xr-x 2 root root      4096 Dec 7 09:43 opt
dr-xr-xr-x 197 root root      0 Jan 14 22:26 proc
drwx----- 2 root root      4096 Dec 7 09:43 root
drwxr-xr-x 2 root root      4096 Dec 7 09:43 run
drwxr-xr-x 2 root root      4096 Dec 7 09:43/sbin
drwxr-xr-x 2 root root      4096 Dec 7 09:43/srv
dr-xr-xr-x 12 root root      0 Jan 14 22:26 sys
drwxrwxrwt 2 root root      4096 Dec 7 09:43 tmp
drwxr-xr-x 7 root root      4096 Dec 7 09:43 usr
drwxr-xr-x 12 root root      4096 Dec 7 09:43 var
Altafs-MacBook-Pro:~ altafali$ docker run alpine echo "hello from alpine"
hello from alpine
Altafs-MacBook-Pro:~ altafali$ docker run alpine /bin/sh
Altafs-MacBook-Pro:~ altafali$ docker ps
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS   NAMES
Altafs-MacBook-Pro:~ altafali$ docker ps -a
CONTAINER ID   IMAGE     COMMAND   CREATED        STATUS      PORTS   NAMES
f6c38f4fbd8a   alpine    "/bin/sh"   25 seconds ago   Exited (0)   24 seconds ago   sharp_chandrasekhar
5bfade2d5a91   alpine    "echo 'hello from al-"   About a minute ago   Exited (0)   About a minute ago   distracted_bouman
c370ce9a8744   alpine    "ls -l"     About a minute ago   Exited (0)   About a minute ago   goofy_tu
Altafs-MacBook-Pro:~ altafali$ docker run -it alpine /bin/sh
/ #
/ #
```

```

Altafs-MacBook-Pro:~ altafali$ docker run -d dockersamples/static-site
Unable to find image 'dockersamples/static-site:latest' locally
latest: Pulling from dockersamples/static-site
fdd5d7827f33: Pull complete
a3ed95cae8b02: Pull complete
716f7a5f3882: Pull complete
7b10f03a0309: Pull complete
aff3ab7e9c39: Pull complete
Digest: sha256:daa686c61d7d239b7977e72157997489db49f316b9b9af3909d9f10fd28b2dec
Status: Downloaded newer image for dockersamples/static-site:latest
5fbd18463493767c3f33e20897165d3e0d8fdcf55c071c3bad31856a19fe4b
Altafs-MacBook-Pro:~ altafali$ docker ps
CONTAINER ID   IMAGE                COMMAND                  CREATED        STATUS        PORTS                NAMES
5fbd18463493   dockersamples/static-site   "/bin/sh -c 'cd /usr.."   17 seconds ago   Up 16 seconds   80/tcp, 443/tcp      stupefied_ardinghell1
Altafs-MacBook-Pro:~ altafali$ docker stop 5fbd18463493
5fbd18463493
Altafs-MacBook-Pro:~ altafali$ docker rm 5fbd18463493
5fbd18463493
Altafs-MacBook-Pro:~ altafali$ docker run --name static-site -e AUTHOR="Altaf Ali" -d -P dockersamples/static-site
786ad36c64ab1a56b811bdbea4e5b8d614dfa2b53ecb8940c9d0cc7ee2584be0
Altafs-MacBook-Pro:~ altafali$ docker port static-site
80/tcp -> 0.0.0.0:55001
443/tcp -> 0.0.0.0:55000
Altafs-MacBook-Pro:~ altafali$ docker-machine ip default
-bash: docker-machine: command not found
Altafs-MacBook-Pro:~ altafali$ docker stop static-site
static-site
Altafs-MacBook-Pro:~ altafali$ docker rm static-site
static-site
Altafs-MacBook-Pro:~ altafali$ █

```

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localhost:8888



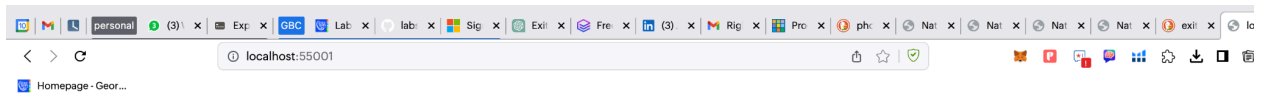
Homepage - Geor...

CAT GIF OF THE DAY

This image is no longer available.

```
-bash: cd: esktop: No such file or directory
Altafs-MacBook-Pro:~ altafali$ cd Desktop
Altafs-MacBook-Pro:Desktop altafali$ cd Desktop
-bash: cd: Desktop: No such file or directory
Altafs-MacBook-Pro:Desktop altafali$ cd devops
Altafs-MacBook-Pro:devops altafali$ mkdir flask-app
Altafs-MacBook-Pro:devops altafali$ ls
2.1.png      alpine.png      flask-app      hello worlds.png      web.png
Altafs-MacBook-Pro:devops altafali$ cd flask-app/
Altafs-MacBook-Pro:flask-app altafali$ docker build -t altaf53/myfirstapp .
[+] Building 8.8s (12/12) FINISHED
=> [internal] load .dockerignore
=> > transferring context: 25
=> [internal] load build definition from Dockerfile
=> > transferring dockerfile: 520B
=> [internal] load metadata for docker.io/library/alpine:3.5
=> [auth] library/alpine:pull token for registry-1.docker.io
=> [1/6] FROM docker.io/library/alpine:3.5@sha256:66952b313e51c3bd198d7d7caddf5dba9bc8fb6e52aead2448fa660246b3e76ec
=> resolve docker.io/library/alpine:3.5@sha256:66952b313e51c3bd198d7d7caddf5dba9bc8fb6e52aead2448fa660246b3e76ec
=> sha256:6cae8e1ac61cead281f41115cc8ebd391177e54dffcf8fde6857959dca3cd4e 1.97kB / 1.97kB
=> sha256:66952b313e51c3bd198d7d7caddf5dba9bc8fb6e52aead2448fa660246b3e76ec 433B / 433B
=> sha256:f7d2b5725a85826823bc0b154cd8e8232e5e6daf7dc25a80ab80f1158fabfcd 528B / 528B
=> sha256:f8b194ae228cc4f8f9b9bdeb9b139daf8ff8d6e4a751644f225b877a74d2dd9 1.51kB / 1.51kB
=> extracting sha256:8cae8e1ac61cead281f41115cc8ebd391177e54dffcf8fde6857959dca3cd4e
=> [internal] load build context
=> > transferring context: 2.63kB
=> [2/6] RUN apk add --update py2-pip
=> [3/6] COPY requirements.txt /usr/src/app/
=> [4/6] RUN pip install --no-cache-dir -r /usr/src/app/requirements.txt
=> [5/6] COPY app.py /usr/src/app/
=> [6/6] COPY templates/index.html /usr/src/app/templates/
=> exporting to image
=> exporting layers
=> writing image sha256:77dc82e9da1a75c44fd1eb58af680956783b5fe95e9a966c06f47a3b9cc5721c
=> naming to docker.io/altaf53/myfirstapp

What's Next?
View a summary of image vulnerabilities and recommendations + docker scout quickview
Altafs-MacBook-Pro:flask-app altafali$ docker run -p 8888:5000 --name myfirstapp altaf53/myfirstapp
* Running on http://0.0.0.0:8800/ (Press CTRL+C to quit)
192.168.65.1 - - [14/Jun/2024 23:14:41] "GET / HTTP/1.1" 200 -
192.168.65.1 - - [14/Jun/2024 23:14:42] "GET /cart.json HTTP/1.1" 404 -
192.168.65.1 - - [14/Jun/2024 23:14:43] "GET /favicon.ico HTTP/1.1" 404 -
*Altafs-MacBook-Pro:flask-app altafali$ docker login
Authenticating with existing credentials...
Login Succeeded
Altafs-MacBook-Pro:flask-app altafali$ docker push altaf53/myfirstapp
Using default tag: latest
The push refers to repository [docker.io/altaf53/myfirstapp]
dcd73a9d298a: Pushed
7ad94ca83dbd5: Pushed
aa7f8234753d: Pushed
5a2f70b80a8: Pushed
aa9a28a31aa5: Pushed
f566c57e6f2d: Mounted from library/alpine
latest: digest: sha256:c617fd4fd1d4691ee80ecc1bdcdbdeab317e0cabd12daaf4c5fcee27f83a570 size: 1571
Altafs-MacBook-Pro:flask-app altafali$ docker rm -f myfirstapp
myfirstapp
Altafs-MacBook-Pro:flask-app altafali$
```



Hello Altaf Ali!

This is being served from a **docker** container running Nginx.


```
Altairs-MacBook-Pro:devops altairs$ git clone https://github.com/docker/example-voting-app.git
Cloning into 'example-voting-app'...
remote: Enumerating objects: 1132, done.
remote: Total 1132 (delta 0), reused 0 (delta 0), pack-reused 1132
Receiving objects: 100% (1132/1132), 1.17 MiB | 6.61 MiB/s, done.
Resolving deltas: 100% (432/432), done.
Altairs-MacBook-Pro:devops altairs$ cd example-voting-app
Altairs-MacBook-Pro:example-voting-app altairs$ docker swarm init
Swarm initialized: current node (f9adb02d50ynr9yqps5e64tng) is now a manager.

To add a worker to this swarm, run the following command:

    docker swarm join --token SWMTKN-1-89bfe145bqkg2s2zhph559picid9b28kgw2m6qrkvog7pzn24-8oo151nfh3z2jehgeq145bvh 192.168.65.3:2377

To add a manager to this swarm, run 'docker swarm join-token manager' and follow the instructions.

Altairs-MacBook-Pro:example-voting-app altairs$ docker stack deploy
"docker stack deploy" requires exactly 1 argument.
See 'docker stack deploy --help'.

Usage: docker stack deploy [OPTIONS] STACK

Deploy a new stack or update an existing stack
Altairs-MacBook-Pro:example-voting-app altairs$ docker stack deploy --compose-file docker-stack.yml vote
Creating network vote_default
Creating network vote_backend
Creating network vote_frontend
Creating service vote_worker
Creating service vote_visualizer
Creating service vote_redis
Creating service vote_db
Creating service vote_result
Altairs-MacBook-Pro:example-voting-app altairs$ docker stack services vote

```

ID	NAME	MODE	REPLICAS	IMAGE	PORTS
3bjq2bt0tfefj	vote_db	replicated	0/1	postgres:9.4	
yy4712gm2k2c	vote_redis	replicated	0/2	redis:alpine	*:3000->6379/tcp
zaw90vxyx7gc	vote_result	replicated	0/1	dockersamples/examplevotingapp_result:before	*:5001->80/tcp
znp7y7vzh2j	vote_visualizer	replicated	0/4	dockersamples/visualizer:latest	*:8080->8080/tcp
jv51n0xxch5lh	vote_vote	replicated	0/2	dockersamples/examplevotingapp_vote:before	*:5000->80/tcp
6o2yfdh8ccao	vote_worker	replicated	0/1	dockersamples/examplevotingapp_worker:latest	

```
Altairs-MacBook-Pro:example-voting-app altairs$ docker stack deploy --compose-file docker-stack.yml vote
(root) Additional property result is not allowed
Altairs-MacBook-Pro:example-voting-app altairs$ docker stack rm vote
Removing service vote_db
Removing service vote_redis
Removing service vote_result
Removing service vote_visualizer
Removing service vote_vote
Removing service vote_worker
Removing network vote_default
Removing network vote_frontend
Removing network vote_backend
Altairs-MacBook-Pro:example-voting-app altairs$
```

