

# How to build Your First Alpine Docker Image and Push it to DockerHub

Under this tutorial we will see how to build our own first alpine based Docker Image.

```
docker run -dit alpine sh
```

```
620e1bcb5ab6e84b75a7a5c35790a77691112e59830ea1d5d85244bc108578c9  
[node4] (local) root@192.168.0.20 ~
```

```
docker ps
```

| CONTAINER ID | IMAGE  | COMMAND | CREATED       | STATUS       | PORTS |
|--------------|--------|---------|---------------|--------------|-------|
| 620e1bcb5ab6 | alpine | "sh"    | 3 seconds ago | Up 2 seconds |       |

Names: keen\_alba  
ttani

```
[node4] (local) root@192.168.0.20 ~
```

```
docker attach 62
```

```
/ #  
/ #  
/ # cat /etc/os-release  
NAME="Alpine Linux"  
ID=alpine  
VERSION_ID=3.9.2  
PRETTY_NAME="Alpine Linux v3.9"  
HOME_URL="https://alpinelinux.org/"  
BUG_REPORT_URL="https://bugs.alpinelinux.org/"  
/ #
```

## Updating APK Packages

```
/ # apk update  
fetch http://dl-cdn.alpinelinux.org/alpine/v3.9/main/x86_64/APKINDEX.tar.gz  
fetch http://dl-cdn.alpinelinux.org/alpine/v3.9/community/x86_64/APKINDEX.tar.gz  
v3.9.2-21-g3dda2a36ce [http://dl-cdn.alpinelinux.org/alpine/v3.9/main]  
v3.9.2-19-gfdf726d41a [http://dl-cdn.alpinelinux.org/alpine/v3.9/community]  
OK: 9756 distinct packages available
```

```
/ # apk add git  
(1/7) Installing ca-certificates (20190108-r0)  
(2/7) Installing nghttp2-libs (1.35.1-r0)  
(3/7) Installing libssh2 (1.8.0-r4)  
(4/7) Installing libcurl (7.64.0-r1)  
(5/7) Installing expat (2.2.6-r0)  
(6/7) Installing pcre2 (10.32-r1)  
(7/7) Installing git (2.20.1-r0)
```

```
Executing busybox-1.29.3-r10.trigger
Executing ca-certificates-20190108-r0.trigger
OK: 20 MiB in 21 packages
/#
```

Now lets come out of it by Ctrl+P+Q and commit the changes

```
docker ps
```

| CONTAINER ID | IMAGE  | COMMAND | CREATED       | STATUS       | PORTS | NAMES          |
|--------------|--------|---------|---------------|--------------|-------|----------------|
| 620e1bcb5ab6 | alpine | "sh"    | 4 minutes ago | Up 4 minutes |       | keen_albattani |

```
[node4] (local) root@192.168.0.20 ~
docker commit -m "Added GIT" 620 ajeetraina/alpine-git
sha256:9a8cd6c3bd8761013b2b932c58af2870f5637bfd4227d7414073b0458ed0c54
[node4] (local) root@192.168.0.20 ~
docker images
```

| REPOSITORY            | TAG    | IMAGE ID     | CREATED        | SIZE   |
|-----------------------|--------|--------------|----------------|--------|
| ajeetraina/alpine-git | latest | 9a8cd6c3bd87 | 11 seconds ago | 31.2MB |
| ubuntu                | latest | 94e814e2efa8 | 3 days ago     | 88.9MB |
| alpine                | 3.6    | 43773d1dba76 | 7 days ago     | 4.03MB |
| alpine                | 3.7    | 6d1ef012b567 | 7 days ago     | 4.21MB |
| alpine                | 3.8    | dac705114996 | 7 days ago     | 4.41MB |
| alpine                | 3.9    | 5cb3aa00f899 | 7 days ago     | 5.53MB |
| alpine                | latest | 5cb3aa00f899 | 7 days ago     | 5.53MB |

There you see a new image just created.

## Time to tag the image

```
docker tag --help
```

Usage: docker tag SOURCE\_IMAGE[:TAG] TARGET\_IMAGE[:TAG]

Create a tag TARGET\_IMAGE that refers to SOURCE\_IMAGE

```
[node4] (local) root@192.168.0.20 ~
docker tag ajeetraina/alpine-git:latest ajeetraina/alpine-git:1.0
```

```
docker images
```

| REPOSITORY            | TAG    | IMAGE ID     | CREATED       | SIZE   |
|-----------------------|--------|--------------|---------------|--------|
| ajeetraina/alpine-git | 1.0    | 9a8cd6c3bd87 | 2 minutes ago | 31.2MB |
| ajeetraina/alpine-git | latest | 9a8cd6c3bd87 | 2 minutes ago | 31.2MB |
| ubuntu                | latest | 94e814e2efa8 | 3 days ago    | 88.9MB |
| alpine                | 3.6    | 43773d1dba76 | 7 days ago    | 4.03MB |
| alpine                | 3.7    | 6d1ef012b567 | 7 days ago    | 4.21MB |
| alpine                | 3.8    | dac705114996 | 7 days ago    | 4.41MB |

|        |        |              |            |        |
|--------|--------|--------------|------------|--------|
| alpine | 3.9    | 5cb3aa00f899 | 7 days ago | 5.53MB |
| alpine | latest | 5cb3aa00f899 | 7 days ago | 5.53MB |

## Pushing it to DockerHub

```
docker login
```

Login with your Docker ID to push and pull images from Docker Hub. If you don't have a Docker ID, head over to <https://hub.docker.com> to create one.

Username: ajeetrainna

Password:

WARNING! Your password will be stored unencrypted in /root/.docker/config.json.

Configure a credential helper to remove this warning. See

<https://docs.docker.com/engine/reference/commandline/login/#credentials-store>

Login Succeeded

[node4] (local) root@192.168.0.20 ~

```
docker push ajeetrainna/alpine-git:1.0
```

The push refers to repository [docker.io/ajeetrainna/alpine-git]

3846235f8c17: Pushed

bcf2f368fe23: Mounted from library/alpine

1.0: digest: sha256:85d50f702e930db9e5b958387e667b7e26923f4de340534085cea184adb8411e  
size: 740

[node4] (local) root@192.168.0.20 ~