

Docker task -3

Create a custom docker image for nginx and deploy it using docker compose, where the volume should be at /var/opt/nginx location. Push the created custom docker image to your docker-hub.

Create a custom docker image for nginx and deploy it using docker compose, where the volume should be at /var/opt/nginx location.

install the docker.

install the docker container required plugin.

```
[ec2-user@ip-172-31-15-15 ~]$ wget https://github.com/docker/compose/releases/download/v2.29.0/docker-compose-linux-x86_64
--2024-07-30 15:47:46-- https://github.com/docker/compose/releases/download/v2.29.0/docker-compose-linux-x86_64
Resolving github.com (github.com)... 140.82.114.4
Connecting to github.com (github.com)[140.82.114.4]:443... connected.
HTTP request sent, awaiting response... 302 Found
Location: https://objects.githubusercontent.com/github-production-release-asset-2e65be/15045751/eb051914-a608-4539-8d91-0f54b104f27a?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=releaseassetproduction%2F20240730%2Fus-east-1%2F%3%2Faws4_request&X-Amz-Date=20240730T154746Z&X-Amz-Expires=300&X-Amz-Signature=1751b1906d848af10ad1f43197f13b57c41719a447c8ed95660cb546574bf3c4&X-Amz-SignedHeaders=host&factor_id=0&key_id=0&repo_id=15045751&response-content-disposition=attachment%3B%20filename%3Ddocker-compose-linux-x86_64&response-content-type=application%2Foctet-stream [following]
--2024-07-30 15:47:46-- https://objects.githubusercontent.com/github-production-release-asset-2e65be/15045751/eb051914-a608-4539-8d91-0f54b104f27a?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=releaseassetproduction%2F20240730%2Fus-east-1%2F%3%2Faws4_request&X-Amz-Date=20240730T154746Z&X-Amz-Expires=300&X-Amz-Signature=1751b1906d848af10ad1f43197f13b57c41719a447c8ed95660cb546574bf3c4&X-Amz-SignedHeaders=host&factor_id=0&key_id=0&repo_id=15045751&response-content-disposition=attachment%3B%20filename%3Ddocker-compose-linux-x86_64&response-content-type=application%2Foctet-stream
Resolving objects.githubusercontent.com (objects.githubusercontent.com)... 185.199.109.133, 185.199.110.133, 185.199.111.133, ...
Connecting to objects.githubusercontent.com (objects.githubusercontent.com)[185.199.109.133]:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 63160172 (60M) [application/octet-stream]
Saving to: 'docker-compose-linux-x86_64'

docker-compose-linux-x86_64 100%[=====] 60.23M 128MB/s in 0.5s
```

change the file permission.

```
[ec2-user@ip-172-31-15-15 ~]$ chmod +x docker-compose-linux-x86_64
[ec2-user@ip-172-31-15-15 ~]$ ls
docker-compose-linux-x86_64
```

moving the file location:

```
[ec2-user@ip-172-31-15-15 ~]$ sudo mv docker-compose-linux-x86_64 /usr/local/bin/docker-compose
```

docker compose version:

```
[ec2-user@ip-172-31-15-15 ~]$ docker-compose --version
Docker Compose version v2.29.0
[ec2-user@ip-172-31-15-15 ~]$ |
```

creating the nginx docker image

```
[ec2-user@ip-172-31-15-15 ~]$ touch dockerfile
```


run the docker image

```
[ec2-user@ip-172-31-15-15 ~]$ sudo docker build -t your-dockerhub-username/custom-nginx .
[+] Building 6.4s (7/7) FINISHED
=> [internal] load build definition from dockerfile
=> transferring dockerfile: 162B
=> [internal] load metadata for docker.io/library/nginx:latest
=> [internal] load .dockerignore
=> transferring context: 2B
=> [internal] load build context
=> transferring context: 290B
=> [1/2] FROM docker.io/library/nginx:latest@sha256:6af79ae5de407283dcea8b00d5c37ace95441fd58a8b1d2aaled93f5511bb18c
=> resolve docker.io/library/nginx:latest@sha256:6af79ae5de407283dcea8b00d5c37ace95441fd58a8b1d2aaled93f5511bb18c
=> sha256:a72860cb95fd59e9c696c66441c64f18e66915fa26b249911e83c3854477ed9a 7.30kB / 7.30kB
=> sha256:045037a63be803c1d446a5239439580a49cd8a8682a5addf4f03b2c1638948a4 627B / 627B
=> sha256:6af79ae5de407283dcea8b00d5c37ace95441fd58a8b1d2aaled93f5511bb18c 10.27kB / 10.27kB
=> sha256:b8a881b012a49e3c2cd6ab9d80f9fcd2962a98af8ede947d0ef938a427b28afc 2.29kB / 2.29kB
=> sha256:efc2b5ad9eec05befa54239d53feeae3569ccbef689aa5e5dbfc25da6c4df559 29.13MB / 29.13MB
=> sha256:8fe9a55eb80f3167f7b3a9c39f90b9eacf833841e5a9f8d60c51f4d2400154a3 41.83MB / 41.83MB
=> sha256:7111b42b4bf1b5273abcc4b138983f48f9cb96bb3f896a6cb36af3dade80383 955B / 955B
=> sha256:3dfc528a4df9e1be9b2817271a35cef87f081e699e5b8ef944640b383ca27e1f 394B / 394B
=> sha256:9e891cdb453be97c53e1ddb4b955ee71099f18f16e68e7018c33662aaa944bf 1.21kB / 1.21kB
=> sha256:0f11e17345c583a30e9cc89b80b1423b7b52b0e36cda9a6dc5de587ecf6ed54c 1.40kB / 1.40kB
=> extracting sha256:efc2b5ad9eec05befa54239d53feeae3569ccbef689aa5e5dbfc25da6c4df559
=> extracting sha256:8fe9a55eb80f3167f7b3a9c39f90b9eacf833841e5a9f8d60c51f4d2400154a3
=> extracting sha256:045037a63be803c1d446a5239439580a49cd8a8682a5addf4f03b2c1638948a4
=> extracting sha256:7111b42b4bf1b5273abcc4b138983f48f9cb96bb3f896a6cb36af3dade80383
=> extracting sha256:3dfc528a4df9e1be9b2817271a35cef87f081e699e5b8ef944640b383ca27e1f
=> extracting sha256:9e891cdb453be97c53e1ddb4b955ee71099f18f16e68e7018c33662aaa944bf
=> extracting sha256:0f11e17345c583a30e9cc89b80b1423b7b52b0e36cda9a6dc5de587ecf6ed54c
=> [2/2] COPY nginx.conf /etc/nginx/nginx.conf
=> exporting to image
=> exporting layers
=> writing image sha256:93340275ec81e3f94448fbc3402bc0206a2c160b9937488507ae3348331e5ea
=> naming to docker.io/your-dockerhub-username/custom-nginx
[ec2-user@ip-172-31-15-15 ~]$
```

```
version: '3'

services:
  web:
    image: your-dockerhub-username/custom-nginx
    ports:
      - "80:80"
    volumes:
      - ./data:/var/opt/nginx

"docker-compose.yml" 10L, 150B
```

docker compose file creation

```
[ec2-user@ip-172-31-15-15 ~]$ sudo docker-compose up -d
WARN[0000] /home/ec2-user/docker-compose.yml: the attribute 'version' is obsolete, it will be ignored, please remove it to avoid potential confusion
[+] Running 2/2
 ✓ Network ec2-user_default Created 0.1s
 ✓ Container ec2-user-web-1 Started 1.0s
```

run the decker compose

```
[ec2-user@ip-172-31-15-15 ~]$ sudo docker container ls
CONTAINER ID   IMAGE                                COMMAND                  CREATED        STATUS        PORTS                                NAMES
836597d1e19a   your-dockerhub-username/custom-nginx "/docker-entrypoint.…"   3 minutes ago   Up 3 minutes   0.0.0.0:80->80/tcp, :::80->80/tcp    ec2-user-w
```

created docker container

Upload the docker image:

```
[root@ip-172-31-15-15 ec2-user]# docker tag nginx:latest siddiqkesavansk/nginx1:v1
[root@ip-172-31-15-15 ec2-user]# docker push siddiqkesavansk/nginx1:v1
The push refers to repository [docker.io/siddiqkesavansk/nginx1]
5783d0aa52e9: Pushed
60e72fbb314e: Pushed
599e8de62018: Pushed
09581b9299a2: Pushed
a39383416a22: Pushed
a6355e7844d5: Pushed
fcfa12460e7d: Pushed
e0781bc8667f: Pushed
v1: digest: sha256:92568412992b0daf6f96c05d1abae2cb9e5569362c0aa5d2043d150c7b1b6611 size
: 1985
[root@ip-172-31-15-15 ec2-user]# |
```

The screenshot shows the Docker Hub interface for the repository `siddiqkesavansk/nginx1`. The page has a dark theme and a top navigation bar with tabs: General, Tags, Builds, Collaborators, Webhooks, and Settings. The 'General' tab is active. The repository name is displayed with a 'Public View' button. Below the name, it says 'Updated 1 minute ago'. There are two sections for incomplete information: 'This repository does not have a description' and 'This repository does not have a category', both with an 'INCOMPLETE' status icon. On the right, the 'Docker commands' section shows the command `docker push siddiqkesavansk/nginx1:tagname`. The 'Tags' section on the left indicates 'This repository contains 1 tag(s)' and shows a table with one tag, 'v1', which is an 'Image' type, pulled and pushed 'a few seconds ago'. A 'See all' link is present. The 'Automated Builds' section on the right explains how to connect GitHub or Bitbucket for automated builds and includes an 'Upgrade' button.

siddiqkesavansk/nginx1

Updated 1 minute ago

This repository does not have a description INCOMPLETE

This repository does not have a category INCOMPLETE

Docker commands [Public View](#)

To push a new tag to this repository:

```
docker push siddiqkesavansk/nginx1:tagname
```

Tags

This repository contains 1 tag(s).

| Tag | OS | Type | Pulled | Pushed |
|-----|----|-------|-------------------|-------------------|
| v1 | | Image | a few seconds ago | a few seconds ago |

[See all](#)

Automated Builds

Manually pushing images to Hub? Connect your account to GitHub or Bitbucket to automatically build and tag new images whenever your code is updated, so you can focus your time on creating.

Available with Pro, Team and Business subscriptions. [Read more about automated builds](#) .

[Upgrade](#)

uploaded into dockerhub