

# How to build an image of a project using docker-compose with Dockerfile?

Asked 6 years, 8 months ago   Modified 6 years, 8 months ago   Viewed 16k times



5



I have a project that is running in local development using `docker-compose`

As part of the organisation requirements for gitlab and deployment, the application needs to be built into a single Docker image.

I understand this can be done by adding a `Dockerfile` to the project.



However, I'm wondering if any advice or suggestions on how to include a project running multiple services via `docker-compose` with the application codebase into a single image with `Dockerfile` for deployment, thanks.

EDIT: From what I can gather, the approach would be to build a new image , with Dockerfile, from the application codebase, then include that in the `docker-compose.yml` file for the deployment environment?

EDIT 2: Apologies for the confusion. I'm new at Docker and there's a bit of learning curve! In this case it seems one can build the application image in the gitlab registry and then include that image in the docker-compose for deployment, will try it.

docker

docker-compose

gitlab

dockerfile



By clicking "Accept all cookies", you agree Stack Exchange can store cookies on your device and disclose information in accordance with our [Cookie Policy](#).

Accept all cookies

Necessary cookies only

Customize settings

at 7:36

asked Dec 12, 2017 at 23:55



David Thomas

4,267 ● 4 ● 30 ● 24

to be very difficult to answer this question. There  
docker-compose to a single Dockerfile will  
Dec 13, 2017 at 0:07

on the `docker-compose.yml` file. Please  
the project – David Thomas Dec 13, 2017 at

orted by: Highest score (default)



A single Dockerfile is usually not enough to replace a whole containers orchestration made with docker-compose and is not necessarily a good choice.

10



## About converting a `docker-compose.yml` file to a Dockerfile



:



You can pass some informations from your `docker-compose.yml` file to your `Dockefile` (the command to run for instance) but that wouldn't be equivalent and you can't do that with all the `docker-compose.yml` file content.

You can replace your `docker-compose.yml` file with commands lines though (as `docker-compose` is precisely to replace it).

### BUT

Keep in mind that `Dockerfiles` and `docker-compose` [serve two whole different purposes](#).

- `Dockerfile` are meant for **image building**, to define the steps to build your images.
- `docker-compose` is a tool to start and orchestrate **containers** to build your applications (you can add some informations like the build context path or the name for the images you'd need, but not the Dockerfile content itself).

So asking to "convert a `docker-compose.yml` file into a `Dockerfile`" isn't really relevant.

That's more about converting a `docker-compose.yml` file into one (or several) command line(s) to start containers by hand.

of these command lines to make things



By clicking "Accept all cookies", you agree Stack Exchange can store cookies on your device and disclose information in accordance with our [Cookie Policy](#).

## e container :

ost benefit out of Docker, avoid one  
your overall application

eral processes, or if you use a supervisor,

EDIT

Since I'm not sure it's clear for you either, here is [the difference between a container and an image](#).

You *really* should check this out and try to understand this before working with Docker since it's a very necessary thing to know.

Share Improve this answer Follow

edited Dec 13, 2017 at 0:26

answered Dec 12, 2017 at 23:59



vmonteco

15.1k ● 17 ● 58 ● 90

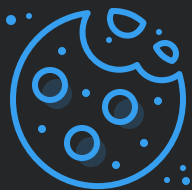
Thanks for your response. Yes, I understand docker-compose and the dockerfile serve different purposes. In this case it is an org requirement to flatten the project to a single image for gitlab CD deployment. So, to build the project image from the Dockerfile, I would need to take the commands from the docker-compose file and convert into Dockerfile syntax? – [David Thomas](#) Dec 13, 2017 at 0:09

@DavidThomas No, you didn't get the difference between Dockerfiles and docker-compose.yml files. You should really look it up. The answer I linked is also great to explain the difference between both. The steps you provide in the `Dockerfile` are meant for the images building process. The informations you provide in the `docker-compose.yml` file are meant to tell compose how to start these containers. – [vmonteco](#) Dec 13, 2017 at 0:19

OK thanks, yes I've read the docs and I'm not sure that's any clearer. Perhaps I can find a way to just use the `docker-compose.yml` file only. I'm not sure why the `Dockerfile` is needed when the project is already running with `docker-compose` however the aim is to use `Dockerfile` to *build an image* of the whole project for deployment – [David Thomas](#) Dec 13, 2017 at 0:20

How do you build your images if you don't have a base image that fits your need nor a Dockerfile to build your image from a base image then? – [vmonteco](#) Dec 13, 2017 at 0:22

- 1 Well, that's the question, how can I build the project image from the docker-compose services + application code base? Trying to work out what's required for the Dockerfile there. – [David Thomas](#) Dec 13, 2017 at 0:23



By clicking "Accept all cookies", you agree Stack Exchange can store cookies on your device and disclose information in accordance with our [Cookie Policy](#).