# Build an image

When we build an image we need to either run the ‘docker build’ command from a folder which contains a Dockerfile and all the other files needed or use this command:

* Docker build -f docker\_file\_path -t image\_name build-context-directory-path

Note:

* Build context directory is a directory which contains the Dockerfile and all the other files which will be used in the Dockerfile (which we will copy into an image using the COPY or ADD instructions).

Where:

* **docker\_file\_path** - A path to the Dockerfile which will be used for building an image. We don’t need to provide it if the Dockerfile is called ‘Dockerfile’ and it is located in the build context directory.
* **build-context-directory-path** – A path to the build context directory.

When we run for example ‘COPY’ instruction in the Dockerfile then we need to provide there

# Docker exec

Docker exec runs a new command inside of a running container. For example if we run:

* Docker exec -it <container\_name\_or\_id> /bin/bash

In simple words it gives us access to the container’s terminal.

To be more precise it starts a new bash session inside of a container and allocates a pseudo terminal which we can use from our computer’s terminal.

# Docker user group

If we want a non root user to be able to run docker commands on Linux, then we need to add this user to a user group called ‘docker’.

# Containerd

Docker uses containerd as a runtime for running containers. Docker is communicating with it.

### Containerd.sock

It is a file which is a Unix domain socket. It is containerd’s endpoint used by clients (like Kubernetes (kubelet) and other CLI tools) for communication with containerd.

Path of that file uniquely identifies that endpoint and is used by clients to connect to containerd (like an IP address).

### Crictl

It is a CLI tool used to interact with container runtimes like containerd.

### Crictl.yaml

It is a configuration file used by the circtl. Amoung the others it specifies a path to the socket (the .sock file) to use.