# 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’.

# Caching

Every time Docker has an instruction to perform during building an image, it checks that instruction has been built before.

If yes, then it using a layer which was already built before (a cached layer).

If not, then it executes this instruction to create a new layer.

In order to decide whether to use a cached layer or not Docker checks:

* If the instruction text has changed
* If the files used in the instruction has changed (for example in the ‘COPY’ instruction)
* Any files in the build context (the directory where we run ‘docker build’) has changed (even those not mentioned in the dockerfile)

# Containerd

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

Alternative is the dockerd.

### 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.

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## Dockerd.sock

It is a socket just like containerd.sock explained previously.