All legacy individual and organizational repository plans expire on their January 2021 billing cycle date.
Read the FAQ (https://www.docker.com/pricing/faq#legacy)

Orientation and setup

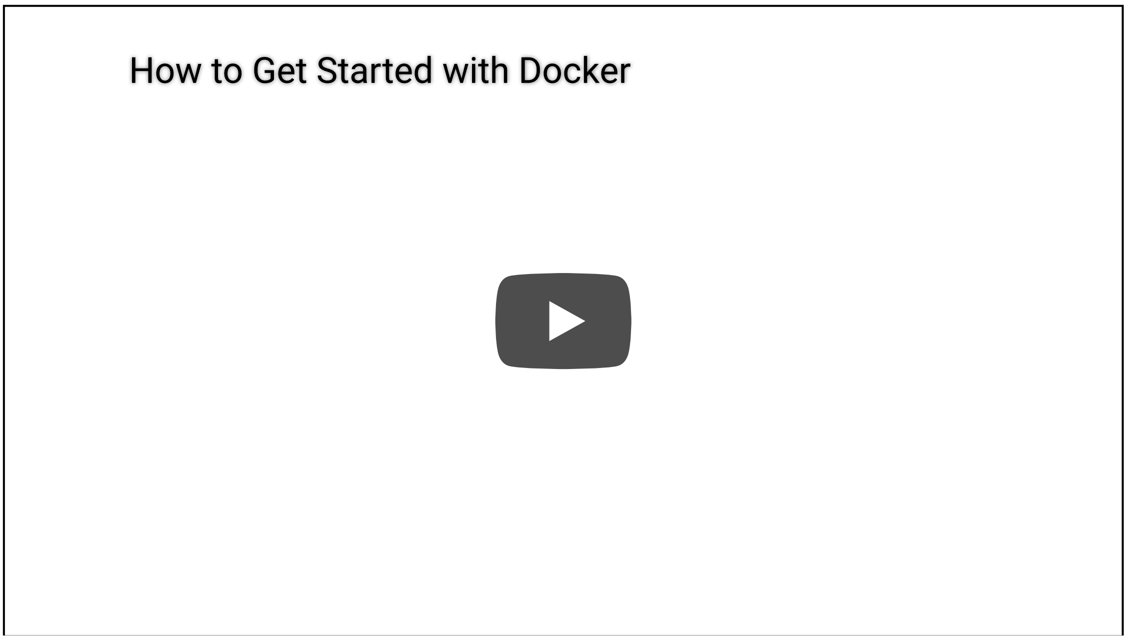
Estimated reading time: 3 minutes

Welcome! We are excited that you want to learn Docker.

This page contains step-by-step instructions on how to get started with Docker.

If you are looking for information on how to containerize an application using your favorite language, see Language-specific getting started guides (/language).

We also recommend the video walkthrough from DockerCon 2020.



In this tutorial, you'll learn about creating and deploying Docker apps, including using multiple containers with a database, and using Docker Compose. You'll also deploy your containerized app to Azure.

Start the tutorial

If you've already run the command to get started with the tutorial, congratulations! If not, open a command prompt or bash window, and run the command:

```
docker run -d -p 80:80 docker/getting-started
```

You'll notice a few flags being used. Here's some more info on them:

- `-d` - run the container in detached mode (in the background)
- `-p 80:80` - map port 80 of the host to port 80 in the container
- `docker/getting-started` - the image to use

Pro tip

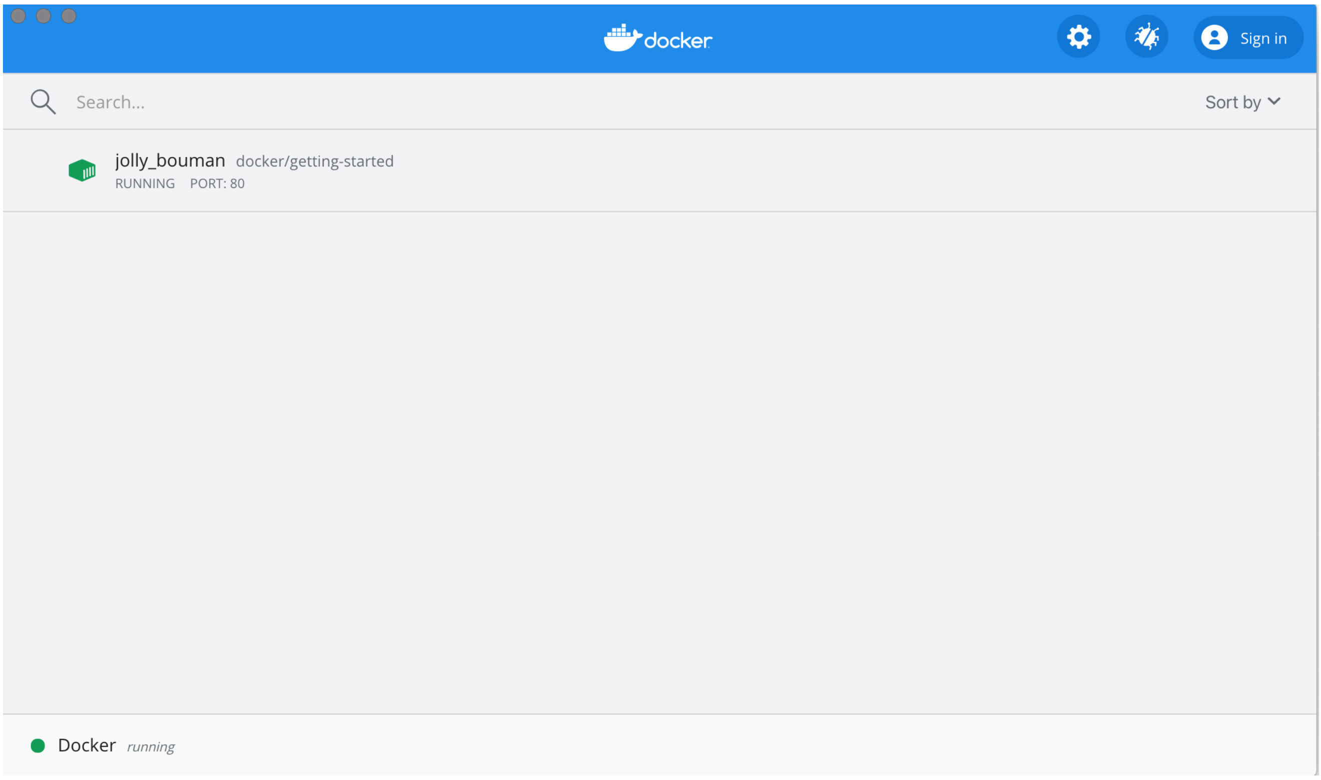
You can combine single character flags to shorten the full command. As an example, the command above could be written as:

```
docker run -dp 80:80 docker/getting-started
```

The Docker Dashboard

Before going too far, we want to highlight the Docker Dashboard, which gives you a quick view of the containers running on your machine. It gives you quick access to container logs, lets you get a shell inside the container, and lets you easily manage container lifecycle (stop, remove, etc.).

To access the dashboard, follow the instructions for either Mac (/docker-for-mac/dashboard/) or Windows (/docker-for-windows/dashboard/). If you open the dashboard now, you will see this tutorial running! The container name (`jolly_bouman` below) is a randomly created name. So, you'll most likely have a different name.



jolly_bouman docker/getting-started
RUNNING PORT: 80

Docker *running*

What is a container?

Now that you've run a container, what *is* a container? Simply put, a container is simply another process on your machine that has been isolated from all other processes on the host machine. That isolation leverages kernel namespaces and cgroups (https://medium.com/@saschagrunert/demystifying-containers-part-i-kernel-space-2c53d6979504), features that have been in Linux for a long time. Docker has worked to make these capabilities approachable and easy to use.

Creating containers from scratch

If you'd like to see how containers are built from scratch, Liz Rice from Aqua Security has a fantastic talk in which she creates a container from scratch in Go. While she makes a simple container, this talk doesn't go into networking, using images for the filesystem, and more. But, it gives a *fantastic* deep dive into how things are working.

What is a container image?

When running a container, it uses an isolated filesystem. This custom filesystem is provided by a **container image**. Since the image contains the container's filesystem, it must contain everything needed to run an application - all dependencies, configuration, scripts, binaries, etc. The image also contains other configuration for the container, such as environment variables, a default command to run, and other metadata.

We'll dive deeper into images later on, covering topics such as layering, best practices, and more.

Info

If you're familiar with `chroot`, think of a container as an extended version of `chroot`. The filesystem is simply coming from the image. But, a container adds additional isolation not available when simply using chroot.

CLI references

Refer to the following topics for further documentation on all CLI commands used in this article:

- docker version (/engine/reference/commandline/version/)
- docker run (/engine/reference/commandline/run/)
- docker image (/engine/reference/commandline/image/)
- docker container (/engine/reference/commandline/container/)

get started (/search/?q=get started), setup (/search/?q=setup), orientation (/search/?q=orientation), quickstart (/search/?q=quickstart), intro (/search/?q=intro), concepts (/search/?q=concepts), containers (/search/?q=containers), docker desktop (/search/?q=docker desktop)