

Create an Application Image



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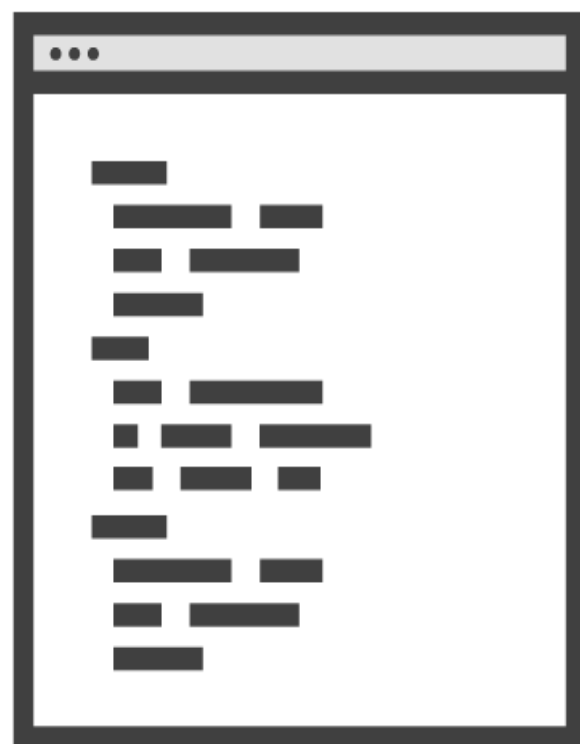
@DanWahlin www.codewithdan.com

Overview

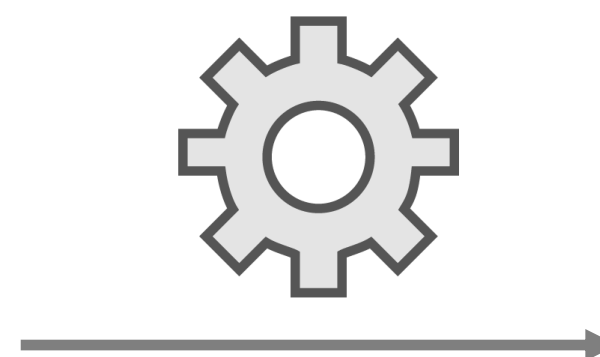


- **Dockerfile core concepts**
- **Create a custom Dockerfile**
- **Use Docker commands to build an image**
- **Deploy an image to Docker Hub**
- **Using the VS Code Docker Extension**

Understand Dockerfiles



Code



Compiler

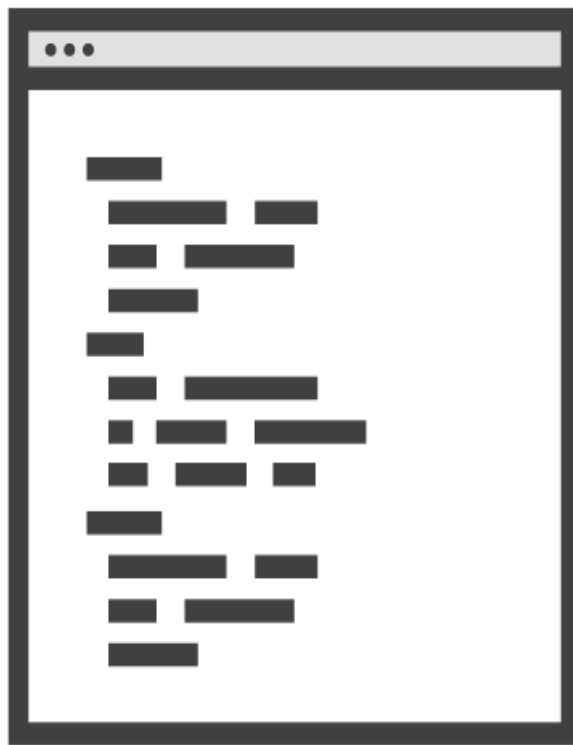


Binary

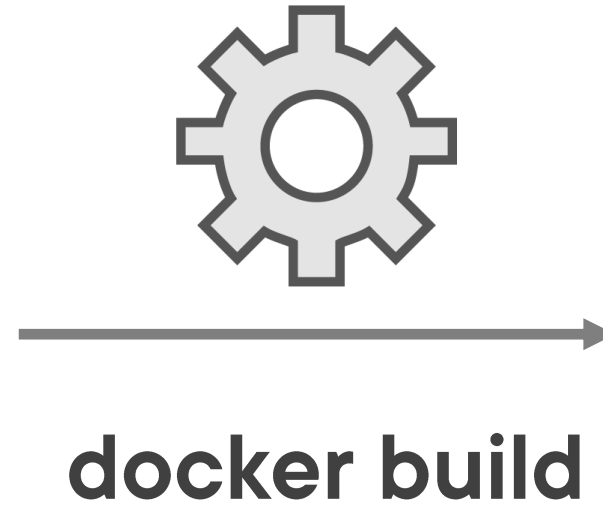
Dockerfile

A **Dockerfile** is a text document that contains all the commands a user could call on the command line to assemble an image.

Dockerfile and Images



Dockerfile



Docker Image



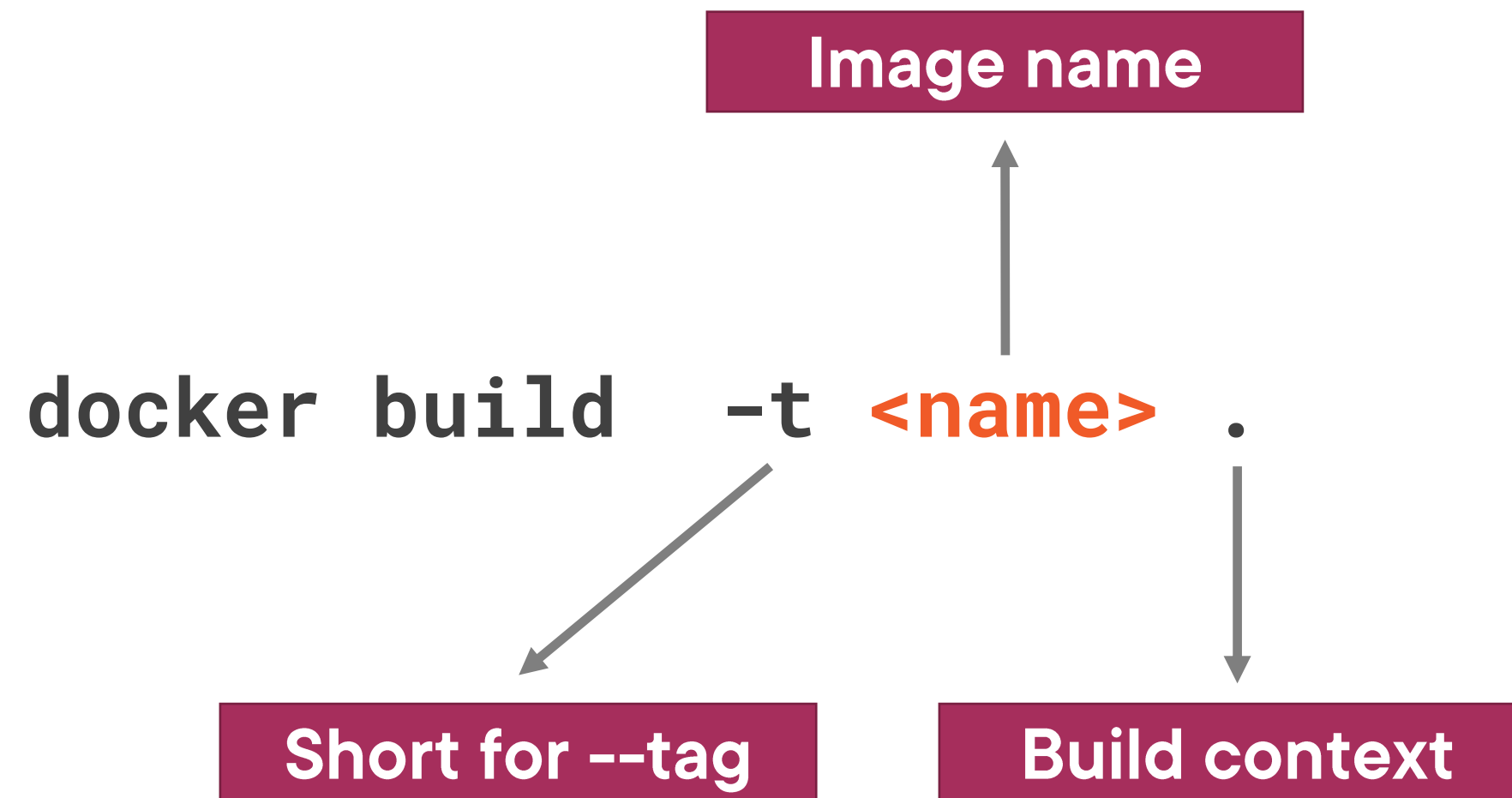
Dockerfile Instructions

```
FROM          node:alpine
LABEL         author="Dan Wahlin"
ENV           NODE_ENV=production
WORKDIR       /var/www
COPY          . .
RUN           npm install
EXPOSE        3000
ENTRYPOINT    ["node", "server.js"]
```


Create a Custom Application Dockerfile

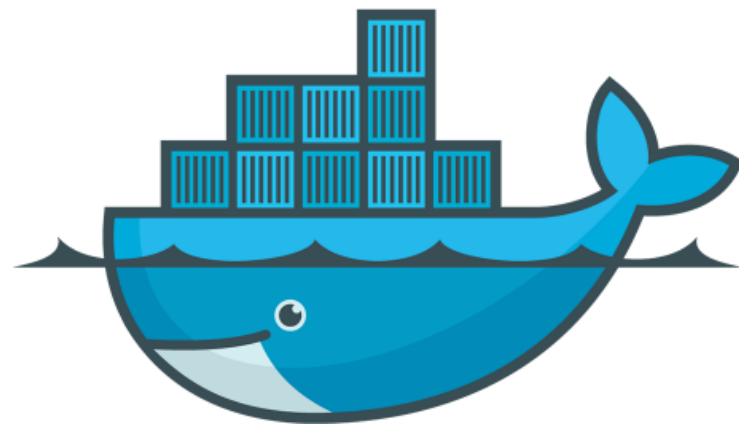
Using docker build

Building a Custom Image



```
docker build -t nodeapp .
```

Docker Registries



Internal Registry

Docker Hub

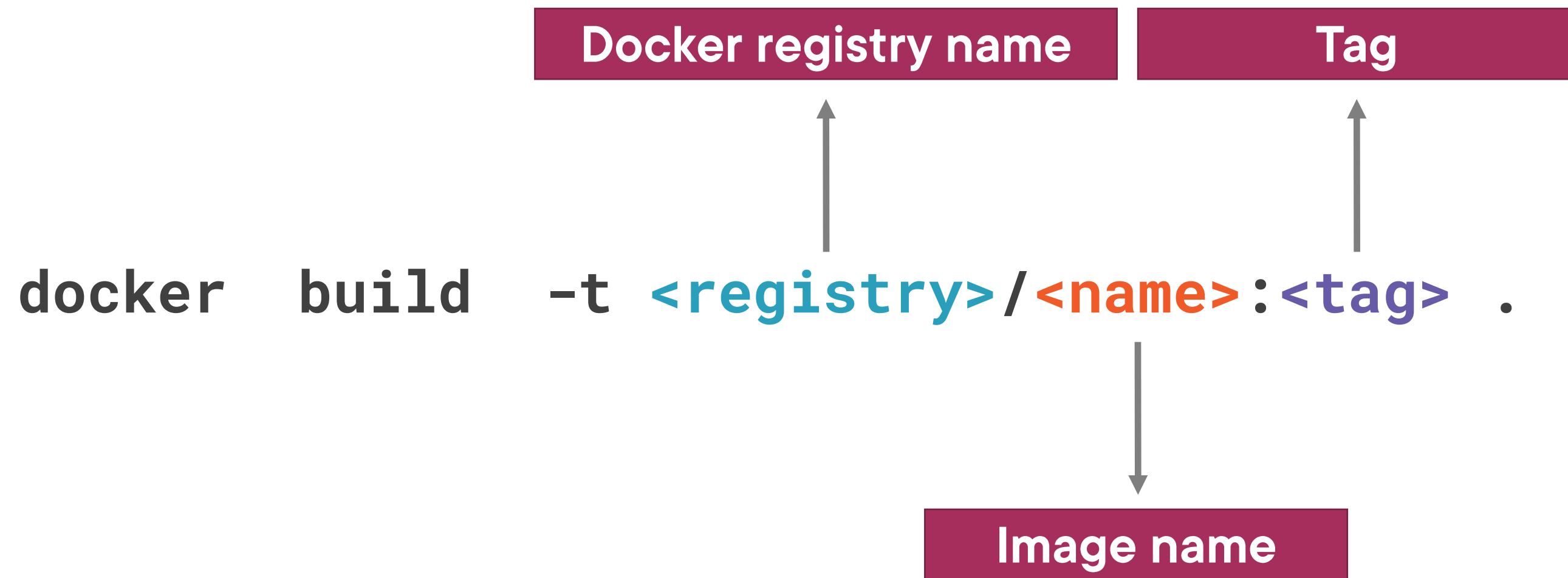
Amazon ECR

Azure Container Registry

Google Container Registry

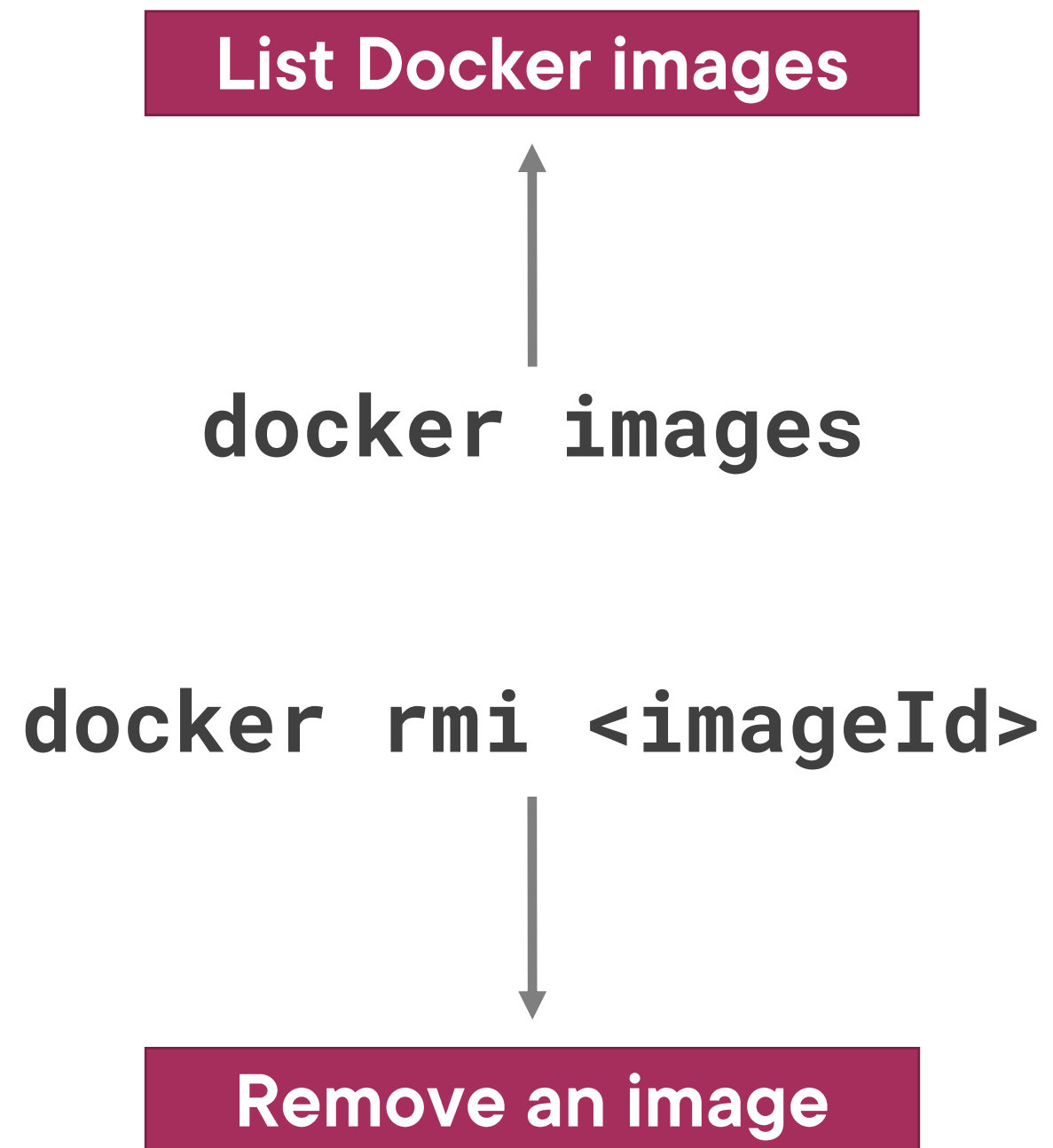
More...

Using Registry Name, Image Name, and Tag



```
docker build -t danwahlin/nodeapp:1.0 .
```

Docker Image Commands

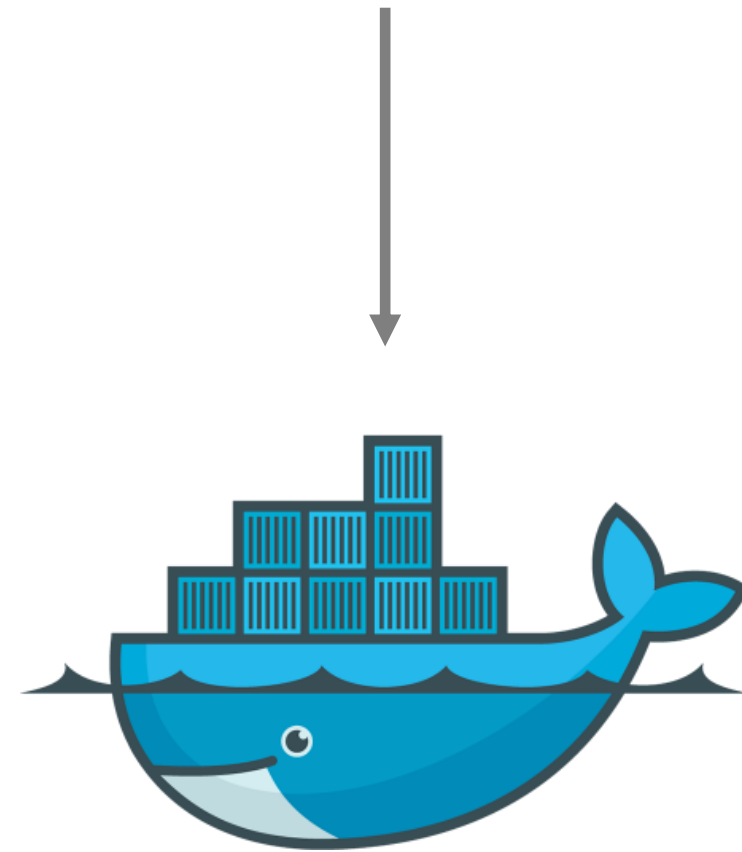


Build a Custom Application Image

Deploy an Application Image to a Registry

Deploy an Image to Docker Hub

```
docker push <user name>/<image name>:<tag>
```



Docker Hub Registry

Use the VS Code Docker Extension

VS Code Docker Extension






Docker Extension

by Microsoft



Get Started with Docker Containers

- After opening a workspace, run [Docker: Add Docker Files to Workspace](#) in the command palette (  )
- Use the extension to help with editing [Dockerfiles](#) and [Compose files](#)



Build and Run Docker Containers

- Building Docker images is easy! Run [Docker Images: Build Image](#)
- To start a container from your image, run [Docker Images: Run](#)



Use the Docker Explorer

- Open the [Docker Explorer](#) to view and manage Docker resources
- View files in running containers with the [Docker Explorer: Containers](#) panel
- You can easily view container logs by right-clicking the container in the [Docker Explorer: Containers](#) panel and choosing "View Logs"



Publish to the Cloud

- Connect and view a container registry in the [Docker Explorer](#) using [Docker Registries: Connect Registry](#)
- Publish images with [Docker Images: Push](#)
- Deploy to [Azure App Service](#) or to [Azure Container Instances](#)

Visit the extension's [GitHub repository](#), read [release notes](#) and [documentation](#), or [create an issue](#)

☒ Show this page when a new update to the Docker extension is released

Summary



- Dockerfile instructions describe what is included in an image and any tasks to run
- The *docker build* command is used to build an image
- Images can be tagged (name and version)
- Docker Hub and other registries can be used to store images
- The VS Code Docker Extension can simplify several tasks