

Deploy a Containerized Application with Docker

For Absolute Beginners

Bhimaja Goonatillaka

goonatillakac@gmail.com

Contents

What is Docker?	3
How Containers Improved Development?	3
What is a Container image?	Error! Bookmark not defined.
What is a Container?	Error! Bookmark not defined.
Demo: How to download, install and run a docker container.	Error! Bookmark not defined.
The Steps.....	Error! Bookmark not defined.
Activity	Error! Bookmark not defined.
How to Run Multiple Containers on Your Host Machine?.....	Error! Bookmark not defined.
How to troubleshoot containers?	Error! Bookmark not defined.
How to Name Docker Containers?	Error! Bookmark not defined.
How Docker Containers are Used in a Development Process?	Error! Bookmark not defined.
How to Establish the Connection Between the Database and its User Interface? .	Error! Bookmark not defined.
For your attention.....	Error! Bookmark not defined.
Is There an Easier Way to Configure These Docker Containers?	Error! Bookmark not defined.
What is Docker Compose?	Error! Bookmark not defined.
What is a Dockerfile?.....	Error! Bookmark not defined.
How to Publish the Docker Image Built?	Error! Bookmark not defined.
Bibliography	Error! Bookmark not defined.

What is Docker?

It is a method used to package applications with all needed dependencies and configurations. These packages are portable and shared and moved around as in one isolated environment. Docker containers make the development and deployment more efficient. Companies use private repositories to store their containers. Public containers also can be used. One example is dockerhub. My public dockerhub is as follows (See Figure 1)

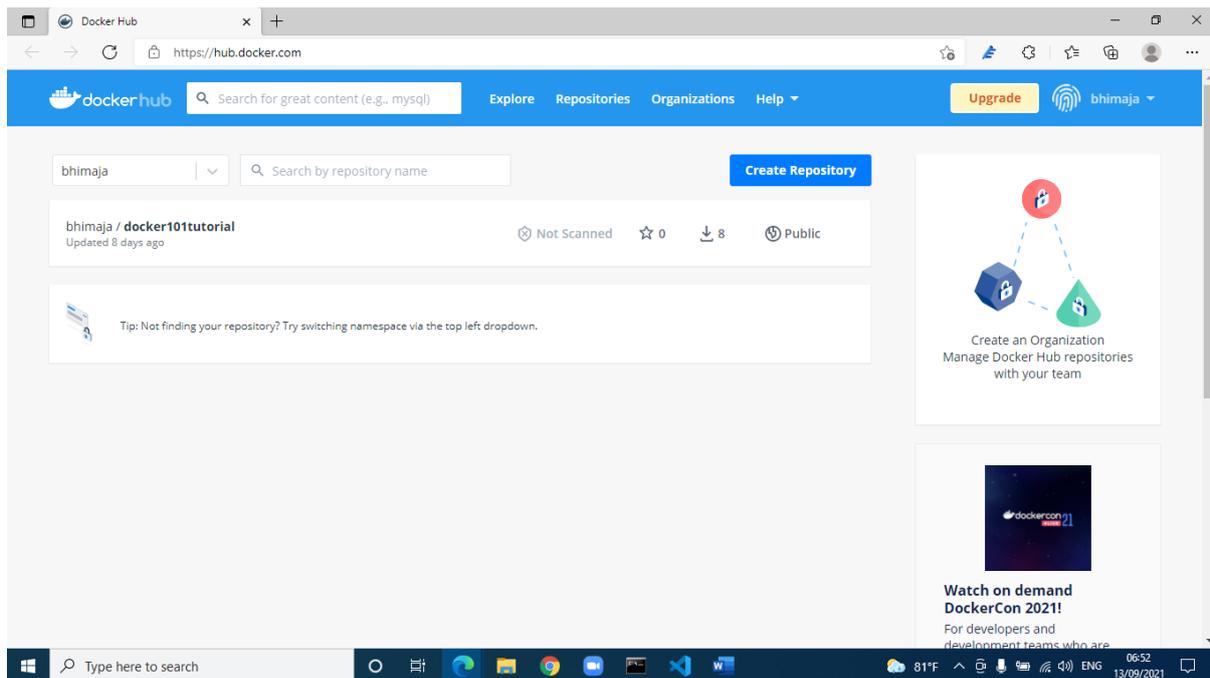


Figure 1

How Containers Improved Development?

Before containers, the installation process was different on each operating system environment. Multiple steps were involved, where something could go wrong easily. There could be dependency version conflicts, misunderstandings between the development team and the operations teams. This will make the development and the deployment processes tedious and stressful. However, with containers we do not have to install any of the services directly on our operating system as containers work on their own isolated environments using Linux based images. Through a repository like dockerhub the wanted container can be selected. The download command for a certain container is just a single command. This will fetch the container and starts itself.