

Zero to Docker

Introduction

In this demo, we are going to see how fast it is to get started with containers. Let's get started.

Sites

- Our Docker Environment [Play with Docker](#)
- Docker Image Repository [Docker Hub](#)

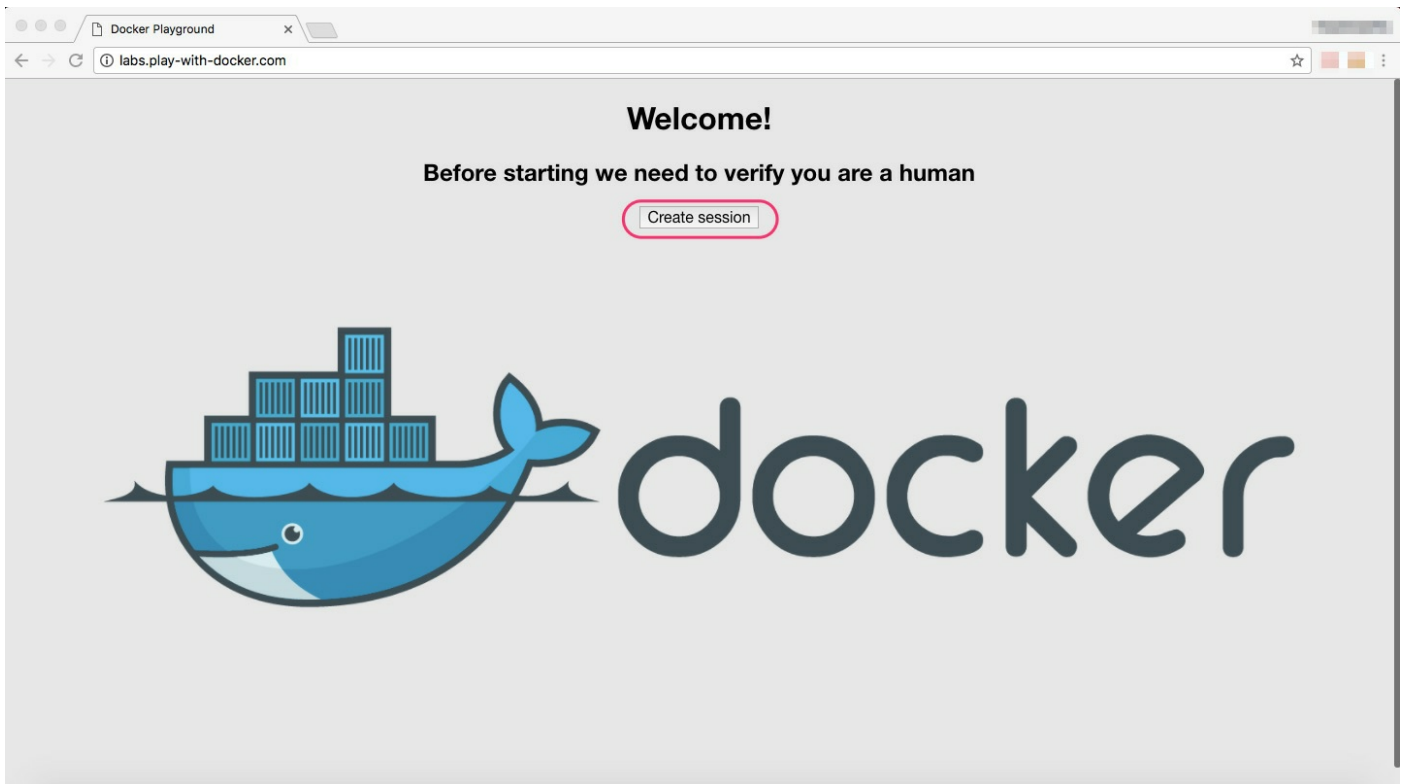
Instructions

Step 1

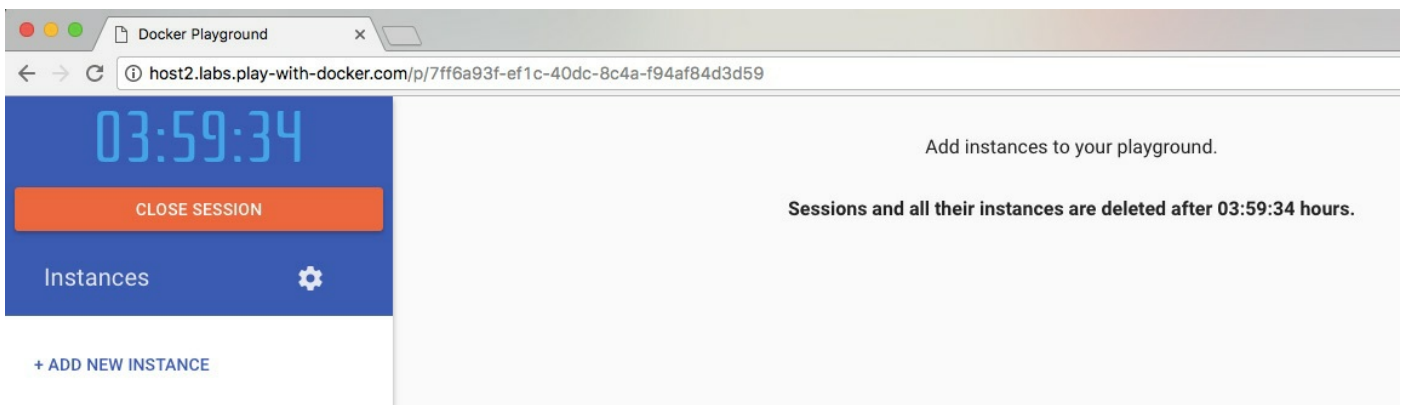
- Click on the *Our Docker Environment* link given above

Step 2

- Now, you will be presented with a welcome page. You have to click on **create session**

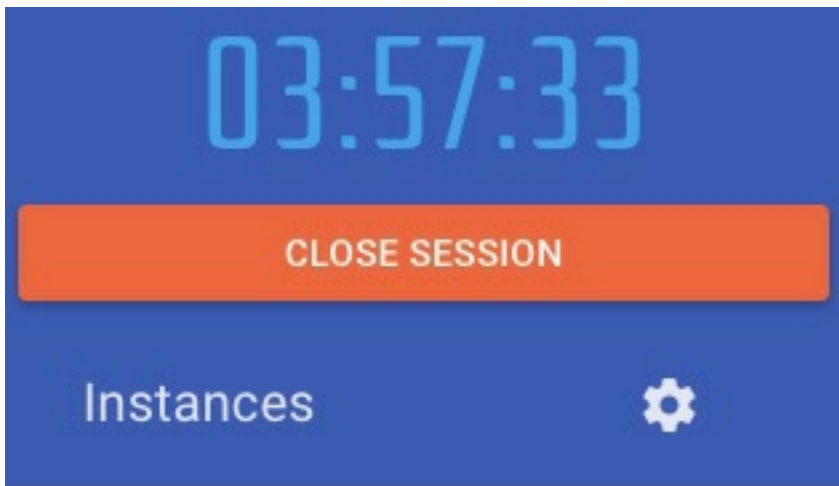


- After that, you will be provided with a workspace. This is where we create our docker environment



Step 3

- Now, we will add our instance.



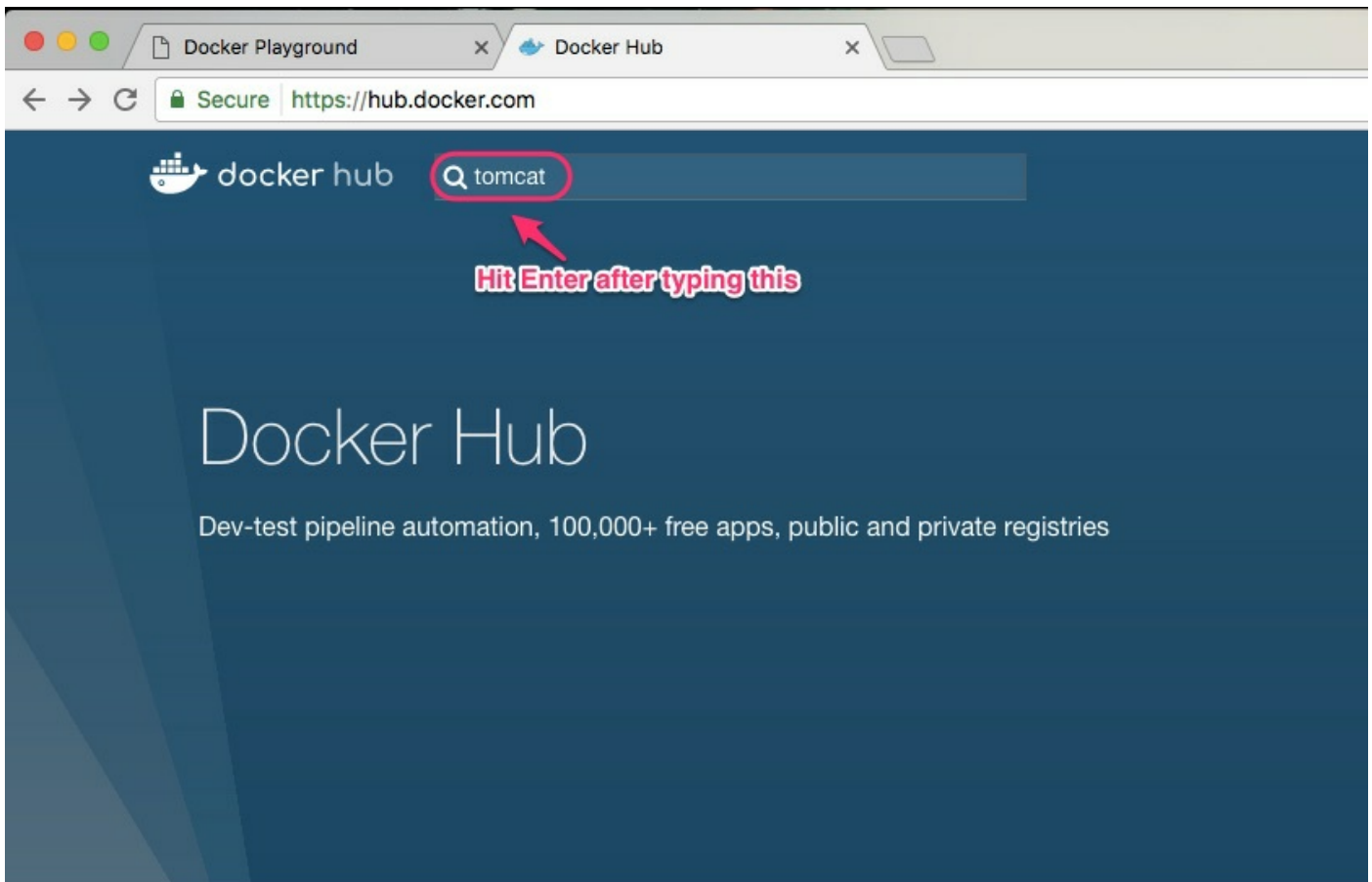
- Launching instance will take a couple minutes to get ready. Meanwhile, we can get our image from **Docker Hub**

Step 4

- Click on the *Docker Image Repository* link given above.

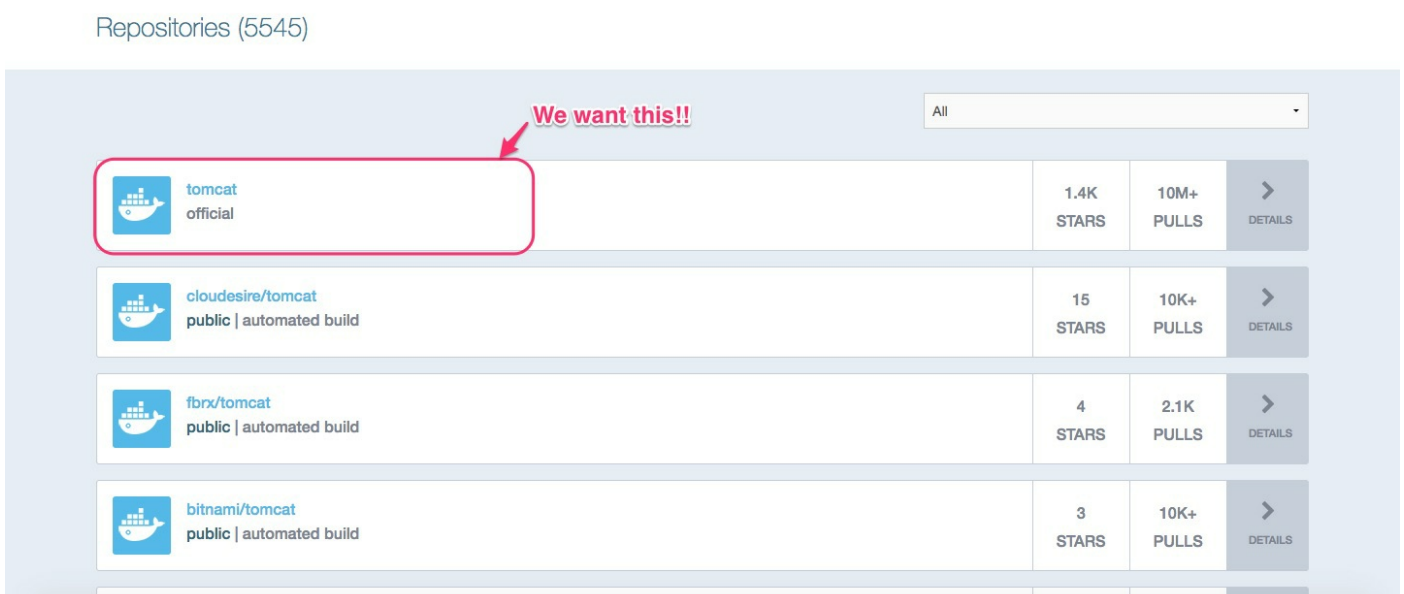
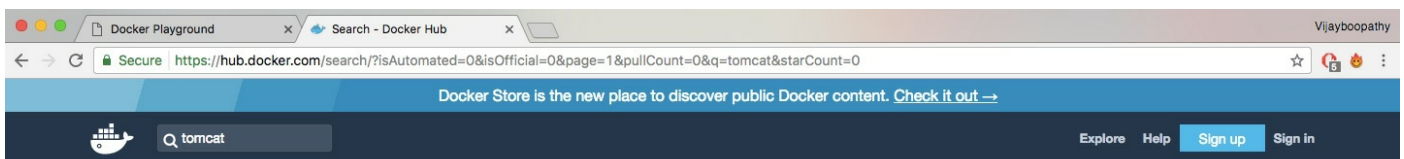
Step 5

- In the search bar, search for **tomcat** and hit *enter*.



Step 6

- The search results will show many repositories. But we need the first one which is the official tomcat image. Click on the first result



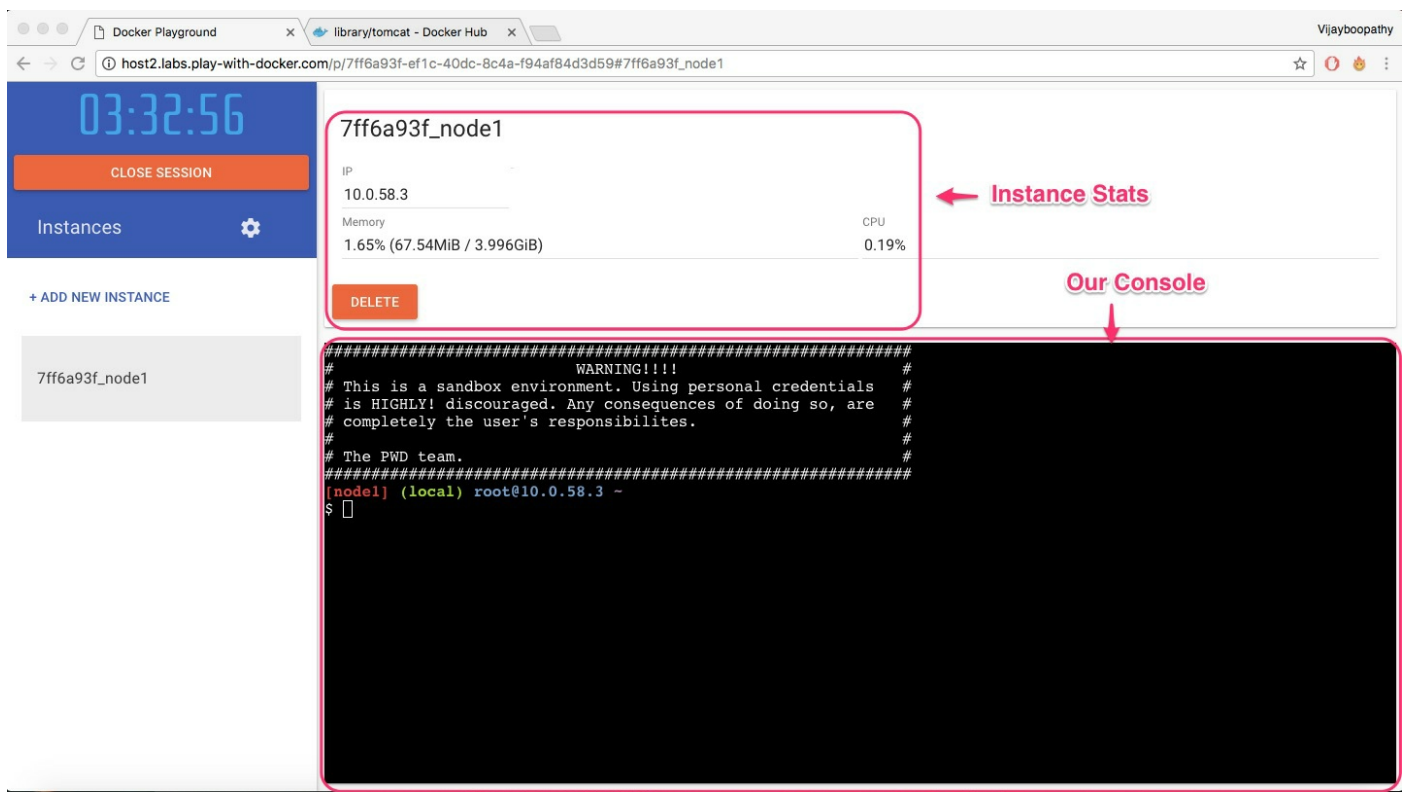
Step 7

- Read through the page and get to know about the image. Especially **How to use this image** section.



Step 8

- However we are going to use a modified version of this command.
Go to the **play with docker** page.
- Now our environment will be ready.



Step 9

```
docker run -itd --name tomcat -p 8080:8080 tomcat:latest
```

- Now we shall examine the above mentioned command.

docker

- This is how we initialize every command in docker.

run

- We tell docker to *run* the container. It will **pull** the image from Dockerhub and **Start** a container using that image.

-itd

- This option enables us to run a container in **detached** mode.

--name tomcat

- In this part, we are naming our container. Name of our container is *tomcat*. This is not mandatory. If you do not provide this option, docker will automatically use a random name for the container.

```
-p 8080:8080
```

- In this step, we are **mounting** 8080 port *from* the *host* to 8080 port inside the *container*. The tomcat process inside the container is using this port.

```
tomcat:latest
```

- This last part of the command is the image that we going to use. This has two parts. The first - *tomcat* - is the **image name** and the second **latest** is a tag of the image. This tag often be the version of the image that we are using. In our case, it is *latest*.

Step 10

- Copy the command and paste it in the console and press *enter*.

```
docker run -itd --name tomcat -p 8080:8080 tomcat:latest
```

```
[node1] (local) root@10.0.58.3 ~
$ docker run -itd --name tomcat -p 8080:8080 tomcat:latest ← Our Command
Unable to find image 'tomcat:latest' locally
latest: Pulling from library/tomcat
10a267c67f42: Pull complete
fb5937da9414: Pull complete
f131c9b3ecc4: Pull complete
f59cc3b26f35: Pull complete
63df868a0518: Pull complete
83282147e192: Pull complete
b9595cab9382: Pull complete
df2d57cc0364: Pull complete
8a47266b20c0: Pull complete
3ceed6847899: Pull complete
df2f38f223b6: Pull complete
bbd58b601cc8: Pull complete
08a39c8509ab: Pull complete
3560d2bf18a1: Pull complete
Digest: sha256:835b6501c150de39d2b12569fd8124eaebc53a899e2540549b6b6f8676538484
Status: Downloaded newer image for tomcat:latest
f6932cabf781197650143789d587972b8fafede5b8c3b073f1999c808890343e ← Launched our container
[node1] (local) root@10.0.58.3 ~
$
```

Step 11

- There will be a **link** in the name of port 8080. Click on that link.

03:11:12

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

7ff6a93f_node1

IP
10.0.58.3

Memory
19.09% (781.1MiB / 3.996GiB)

CPU
0.13%

8080

Click here

DELETE

- Tada! There you go... Now you have running Tomcat webserver.

Docker Playground x Apache Tomcat/8.5.15 x library/tomcat - Docker Hub x

pwd10-0-58-3-8080.host2.labs.play-with-docker.com

Home Documentation Configuration Examples Wiki Mailing Lists Find Help

Apache Tomcat/8.5.15

If you're seeing this, you've successfully installed Tomcat. Congratulations!

Recommended Reading:

- [Security Considerations HOW-TO](#)
- [Manager Application HOW-TO](#)
- [Clustering/Session Replication HOW-TO](#)

Server Status
Manager App
Host Manager

Developer Quick Start

- [Tomcat Setup](#)
- [First Web Application](#)
- [Realms & AAA](#)
- [JDBC DataSources](#)
- [Examples](#)
- [Servlet Specifications](#)
- [Tomcat Versions](#)

Managing Tomcat

For security, access to the `manager webapp` is restricted. Users are defined in:

```
$CATALINA_HOME/conf/tomcat-users.xml
```

In Tomcat 8.5 access to the manager application is split between different users. [Read more...](#)

- [Release Notes](#)
- [Changelog](#)
- [Migration Guide](#)
- [Security Notices](#)

Documentation

- [Tomcat 8.5 Documentation](#)
- [Tomcat 8.5 Configuration](#)
- [Tomcat Wiki](#)

Find additional important configuration information in:

```
$CATALINA_HOME/RUNNING.txt
```

Developers may be interested in:

- [Tomcat 8.5 Bug Database](#)
- [Tomcat 8.5 JavaDocs](#)
- [Tomcat 8.5 SVN Repository](#)

Getting Help

FAQ and Mailing Lists

The following mailing lists are available:

- [tomcat-announce](#)
Important announcements, releases, security vulnerability notifications. (Low volume).
- [tomcat-users](#)
User support and discussion
- [taglibs-user](#)
User support and discussion for [Apache Taglibs](#)
- [tomcat-dev](#)
Development mailing list, including commit messages

Step 12

- Now go back to the console and run the following command.

```
docker exec -it tomcat bash
```

```
[node1] (local) root@10.0.58.3 ~  
$ docker exec -it tomcat bash
```



Exec command

Trash

- This command connects us to the running container. After executing this command we will actually be inside a container.

```
[node1] (local) root@10.0.58.3 ~  
$ docker exec -it tomcat bash  
root@f6932cabf781:/usr/local/tomcat#
```



We are inside our container

Step 13

- Now run the following command inside the container.

```
ps -ax
```

As you can see our tomcat application is running inside the container.

```
[node1] (local) root@10.0.58.3 ~
$ docker exec -it tomcat bash
root@f6932cabf781:/usr/local/tomcat# ps -ax
  PID TTY          STAT       TIME COMMAND
    1 ?        Ssl+      0:09 /docker-java-home/jre/bin/java -Djava.util.logging.config.file=/usr/local/tomcat/conf
   77 ?        Ss        0:00 bash
   83 ?        R+        0:00 ps -ax
root@f6932cabf781:/usr/local/tomcat#
```



Tomcat Process inside the container!

To exit out of the container, you can press **ctrl+p** then **ctrl+q**. This will bring you back to instance's terminal.