

Video 5.4

## *Understanding the Client-Server Architecture of Docker*



## In this Video, we are going to take a look at...

- Learning to use the existing Tomcat image
- Creating a sample image with a Tomcat installation
- Verifying the images with Docker images to run the Tomcat image
- Using Docker inspect with the container ID to find out the IP address of the container

# Tomcat Server

- Deploy a sample Spring application named Pet-clinic on our Tomcat server
- In Container environment, host OS is installed and then it is used to host container layer
- Container layer is used for provisioning container instances
- Container instances are extremely lightweight and efficient as extra libraries or resources are needed for the operating system that is needed in the virtual machine while not in case of containers



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# Repositories (12137)

All

	centos official	2.8K STARS	10M+ PULLS	> DETAILS
	blacklabelops/centos public   automated build	1 STARS	10K+ PULLS	> DETAILS
	darksheer/centos public   automated build	1 STARS	4.2K PULLS	> DETAILS

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Repositories (2775)

All

	tomcat official	1.0K STARS	5M+ PULLS	> DETAILS
	cloudesire/tomcat public   automated build	10 STARS	7.8K PULLS	> DETAILS
	andreptb/tomcat public   automated build	6 STARS	2.9K PULLS	> DETAILS

OFFICIAL REPOSITORY

# tomcat

Last pushed: 12 days ago

### Short Description

Apache Tomcat is an open source implementation of the Java Servlet and JavaServer Pages technologies

### Docker Pull Command

```
docker pull tomcat
```

### Full Description

### Supported tags and respective Dockerfile links



user@localhost:/home/user

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```
[root@localhost user]# docker images
```

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
docker.io/ubuntu	latest	f753707788c5	4 weeks ago	127.1 MB
docker.io/hello-world	latest	c54a2cc56cbb	4 months ago	1.848 kB

```
[root@localhost user]# docker run -it --rm tomcat:8.0
```

Unable to find image 'tomcat:8.0' locally

Trying to pull repository docker.io/library/tomcat ...

8.0: Pulling from docker.io/library/tomcat

43c265008fae: Pulling fs layer

af36d2c7a148: Downloading 595 kB/18.53 MB

2b7b4d10e1c1: Downloading 556.2 kB/566.6 kB

35dfd23791b5: Waiting

fa0aca12f0dd: Waiting

6e3e424fb5e8: Waiting

3134459e064c: Waiting

3189bffb00a1: Waiting

bac57527e43a: Waiting

3b033f96b6a0: Waiting

088aa8eca2bc: Waiting

user@localhost:/home/user

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[root@localhost user]# docker ps

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS
PORTS	NAMES			
29be4da37146	tomcat:8.0	"catalina.sh run"	14 minutes ago	Up 14 minutes
8080/tcp	hungry_fermi			

[root@localhost user]#



user@localhost:/home/user

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```
[root@localhost user]# docker ps
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS
PORTS	NAMES			
29b4da37146	tomcat:8.0	"catalina.sh run"	14 minutes ago	Up 14 minutes
8080/tcp	hungry_fermi			

```
[root@localhost user]# docker inspect
```

user@localhost:/home/user

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```
"MacAddress": "02:42:ac:11:00:02",
"Networks": {
  "bridge": {
    "IPAMConfig": null,
    "Links": null,
    "Aliases": null,
    "NetworkID": "0786607b13b0bb8956f160b61cdcacd0fcc3e505bfb5b4dc397ce8b1d0dccf27",
    "EndpointID": "31583ed20c884981aef22306e6d4a510d2813652c2a5fabbbe9d8e8230d49d19",
    "Gateway": "172.17.0.1",
    "IPAddress": "172.17.0.2",
    "IPPrefixLen": 16,
    "IPv6Gateway": "",
    "GlobalIPv6Address": "",
    "GlobalIPv6PrefixLen": 0,
    "MacAddress": "02:42:ac:11:00:02"
  }
}
}
}
]
[root@localhost user]#
```

Google

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PetClinic-Pipeline [Jenkins]

PetClinic-Pipeline Config [Jenkins]

Build, Ship, & Run  
Any App. Anywhere

Docker Hub

Zimbra

Chef Development Kit

The Chef Development Kit (ChefDK) brings the best-of-breed development tools for awesome Chef community to your workstation with just a few clicks. Download your and start coding Chef in seconds.

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Pipeline Syntax: Snippet Generator [Jenkins]

PetClinic-Compile [Jenkins]

PetClinic-Pipeline-Build [Jenkins]



# Apache Tomcat/8.0.38



The Apache Software Foundation  
<http://www.apache.org/>

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

<a href="#">Tomcat Setup</a>	<a href="#">Realms &amp; AAA</a>	<a href="#">Examples</a>	<a href="#">Servlet Specifications</a>
<a href="#">First Web Application</a>	<a href="#">JDBC DataSources</a>		<a href="#">Tomcat Versions</a>

### Managing Tomcat

For security, access to the [manager webapp](#) is restricted. Users are defined in:

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

In Tomcat 8.0 access to the manager application is split between different users.

### Documentation

- [Tomcat 8.0 Documentation](#)
- [Tomcat 8.0 Configuration](#)
- [Tomcat Wiki](#)

Find additional important configuration information in:

### Getting Help

[FAQ](#) and [Mailing Lists](#)

The following mailing lists are available:

[tomcat-announce](#)  
Important announcements, releases, security vulnerability notifications. (Low volume).

Next Video

Managing Containers