

Docker 系列之 MySQL 容器化部署

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- 原文链接: https://ld246.com/article/1594368425834
- 来源网站: 链滴
- 许可协议:署名-相同方式共享 4.0 国际 (CC BY-SA 4.0)



目录

- 镜像获取
- 创建容器
- 远程连接

镜像获取

使用 docker 命令下载最新版的MySQL镜像, docker 的安装和使用可以查看《Docker 系列之 Docker 简单介绍与安装》和《Docker 系列之 Docker 常用命令》

docker pull mysql #未指定镜像版本默认下载最新版

[root@izwz94gcm9bc3smcx5cpf6z ~]# docker pull mysql
Using default tag: latest
latest: Pulling from library/mysql
8559a31e96f4: Pull complete
d51ce1c2e575: Pull complete
c2344adc4858: Pull complete
fcf3ceff18fc: Pull complete
16da0c38dc5b: Pull complete
b905d1797e97: Pull complete
4b50d1c6b05c: Pull complete
c75914a65ca2: Pull complete
1ae8042bdd09: Pull complete
453ac13c00a3: Pull complete
9e680cd72f08: Pull complete
a6b5dc864b6c: Pull complete
Digest: sha256:8b7b328a7ff6de46ef96bcf83af048cb00a1c86282bfca0cb119c84568b4caf6
Status: Downloaded newer image for mysql:latest
docker.io/library/mysql:latest

或者到docker仓库查看MySQL镜像的版本,选择自己需要的版本下载

Explore mysql		Using 0 of 1 private repositories. Get r
MySQL ☆ Docker Official Images MySQL is a widely used, ope ▲ 18+ Container Linux x55-54 Databases Of Description Reviews Tags	n-source relational database management system (RDBMS). ficial Image	Copy and paste to pull this image docker pull mysql View Available Tags
Q, Filter Tags		Sort by Latest
INAGE latest Lass updated 23 days ago by dogariky DIGEST Oba3Bea90:478	OSZARCH linuxZamd64	docker pull mysqlitatest
IMAGE 8.0.20 Last updated 23 days ago by dogarity DIGEST Oba3Bea90:478	OSZARCH linux/amd64	docker pull mysql:8.0.20
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创建容器

使用 docker image ls查看下载的镜像列表

[root@izwz94gcm9bc3s	mcx5cpf6z ~]	# docker image ls		
REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
mysql	latest	be0dbf01a0f3	3 weeks ago	541MB
portainer/portainer	latest	1ec116aed60c	4 weeks ago	79.1MB
yangliu/nps	latest	7f406aac6e34	6 weeks ago	21.5MB
b3log/solo	latest	e7389c9516df	8 weeks ago	143MB
snowdreamtech/frps	latest	4c8c5549fbce	2 months ago	18.6MB

创建MySQL容器并运行

docker run --name mysql -p 3306:3306 -e MYSQL_ROOT_PASSWORD=password -e MYSQL_ATABASE=test_db -e MYSQL_USER=user -e MYSQL_PASSWORD=password -v /usr/docker/m sql/conf:/etc/mysql.conf.d -v /usr/docker/mysql/logs:/logs -v /usr/docker/mysql/data:/var/lib

mysql -d mysql:latest

命令说明

* --name mysql #容器的名称
* -p 3306:3306 #将容器的3306端口映射到主机的3306端口。
* -e MYSQL_ROOT_PASSWORD=password #初始化root用户的密码。
* -e MYSQL_DATABASE=test_db #可选,创建名为test_db的数据库
* -e MYSQL_USER=user #可选,创建拥有test_db所有权限的user用户
* -e MYSQL_PASSWORD=password #可选,设置user用户的密码
* -v /usr/docker/mysql/conf:/etc/mysql/conf.d #挂载容器中mysql的配置文件夹至主机的logs文件夹
* -v /usr/docker/mysql/logs:/logs #挂载容器中mysql的日志文件夹至主机的logs文件夹
* -v /usr/docker/mysql/data:/var/lib/mysql #挂载容器中mysql的数据文件夹至主机的data文件

* -d mysql:latest #镜像ID或者Repository:Tag, 查看上图

容器列表

在容器列表中可以看到刚刚运行的mysql容器以及其它正在运行的容器

docker ps

[root@izwz94qcm9b	c3smcx5cpf6z ~]# docker	ps				
CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
994d6eb061e6	mysql:latest	<pre>*docker-entrypoint.s_*</pre>	23 seconds ago	Up 22 seconds	0.0.0.0:3306->3306/tcp, 33060/tcp	mysql
ta6d7td9e1t2	portainer/portainer	*/portainer*	4 weeks ago	Up 4 weeks	0.0.0.0:8000->8000/tcp, 0.0.0:9000->9000/tcp	portaine
013473a7bd66	snowdreamtech/frps	<pre>*/bin/sh -c '/usr/bi*</pre>	4 weeks ago	Up 4 weeks		frps
fea60d10h545	hilog/solo	"inva -co lib/#. or "	R weeks ano	tin 9 waaks		solo

远程连接

使用user用户连接MySQL, MYSQL_USER创建的用户默认拥有远程连接权限

2 ±0					
9/90	高级	SSL	SSH	HTTP	
<u> </u>	:			MySQL	
主机名	或 IP 地	址:		192.168.1.131	
端口:				3306	1
用户名	:			user	
密码:				•••••	



连接MySQL时提示2059错误

	×
2059 - Authentication plugin 'caching_sha2_password' cannot be loaded	d: •X••••j•••je顑
确定	

原因

MySQL 8之前的版本中加密规则是 mysql_native_password, 而在MySQL 8之后, 加密规则改为了 aching_sha2_password

解决

更改MySQL的加密规则,首先docker命令进入容器内部

docker exec -it mysql /bin/bash

[root@localhost ~]# docker exec -it mysql /bin/bash root@02f69ac1e0c4:/#

接着使用 root 用户登录MySQL, 输入创建容器时 MYSQL_ROOT_PASSWORD设置的登录密码

mysql -u root -p #登录

```
root@02f69acle0c4:/# mysql -u root -p
Enter password:
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 12
Server version: 8.0.20 MySQL Community Server - GPL
Copyright (c) 2000, 2020, Oracle and/or its affiliates. All rights reserved.
Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
mysql>
```

登录成功后执行以下操作

use mysql; #选择数据库

ALTER USER 'user'@'%' IDENTIFIED BY 'password' PASSWORD EXPIRE NEVER; #更改加密方,其中的'password'为需要设置的密码

ALTER USER 'user'@'%' IDENTIFIED WITH mysql native password BY 'password'; #更新用户密

FLUSH PRIVILEGES; #刷新权限

mysql> use mysql; Reading table information for completion of table and column names You can turn off this feature to get a quicker startup with -A
Database changed mysql> ALTER USER 'user'@'%' IDENTIFIED BY 'password' PASSWORD EXPIRE NEVER; Query OK, 0 rows affected (0.13 sec)
<pre>mysql> ALTER USER 'user'@'%' IDENTIFIED WITH mysql_native_password BY 'password'; Query OK, 0 rows affected (0.01 sec)</pre>
mysql> FLUSH PRIVILEGES; Query OK, 0 rows affected (0.01 sec)
mysql>

完成以上操作后再次使用Navicat远程连接MySQL, 连接成功

常规	高级	SSL	SSH	нттр	
连接谷	<u>ع</u> :			MySQL	
主机名	S或 IP 地	址:	Î	192.168.1.131	
端口:				3306	
用户名	<u>ع</u> :			user	
密码:			Î	•••••	
				☑保存密码	
				×	
				连接成功	
		l			