

mysql8 xtrabackup (Docker) /

Container Mysql8 xtrabackup Full Backup / Restore

, Docker DB DB (Full Backup)
Host machine , OOM 가
"xtrabackup"

mysqldump / ,

xtrabackup ?

- Mysql / Mariadb

- xtrabackup /

- mysqldump xtrabackup

- :
Backup Server

xtrabackup

xtrabackup Host Mysql Container ,

(OS / Host OS)

가 docker / docker-compose / mysql container

```

version: "3"
services:
  test_database:
    container_name: mysql8
    image: 
    environment:
      MYSQL_DATABASE: test_db
      MYSQL_ROOT_PASSWORD: 1234
      MYSQL_ROOT_HOST: '%'
    command:
      - mysqld
      - --character-set-server=utf8mb4
      - --collation-server=utf8mb4_unicode_ci
      - --default-authentication-plugin=mysql_native_password
    volumes:
      # - ./etc/mysql:/etc/mysql:rw
      - ./etc/mysql/conf.d:/etc/mysql/conf.d:rw
      - ./var/lib/mysql:/var/lib/mysql:rw
      - ./bak:/home/bak
      # - ./var/lib/mysql/mysql-files:/var/lib/mysql/mysql-files:rw
    logging:
      driver: "json-file"
      options:
        max-size: "10m"
        max-file: "10"
    ports:
      - 3306:3306
    ulimits:
      memlock:
        soft: -1
        hard: -1
      nofile:
        soft: 65536
        hard: 65536

```

* *mysql docker-compose.yml*

xtrabackup *mysql* *가* *가*
, *logrotate* *.*

docker-compose up -d

- mysql8 container (-d :)

docker ps

- Container ID

docker exec -it [Container ID] /bin/bash

- Container

```

root@localhost:/home/data# docker-compose up -d
[+] Running 2/2
 # Network data_default Created
 # Container mysql8 Started
root@localhost:/home/data# docker ps
CONTAINER ID   IMAGE
80bf3def47bd   [REDACTED]
root@localhost:/home/data# docker exec -it 80b /bin/bash
root@80bf3def47bd:/#

```

apt update -y && apt upgrade -y

-

```
root@80bf3def47bd:/# apt update -y && apt upgrade -y
Get:1 http://security.debian.org/debian-security buster/updates InRelease [65.4 kB]
Get:2 http://deb.debian.org/debian buster InRelease [122 kB]
Get:3 http://deb.debian.org/debian buster-updates InRelease [51.9 kB]
Get:4 http://repo.mysql.com/apt/debian buster InRelease [22.1 kB]
Get:5 http://security.debian.org/debian-security buster/updates/main amd64 Packages [329 kB]
Get:6 http://deb.debian.org/debian buster/main amd64 Packages [7911 kB]
Get:7 http://deb.debian.org/debian buster-updates/main amd64 Packages [8788 B]
Get:8 http://repo.mysql.com/apt/debian buster/mysql-8.0 amd64 Packages [8447 B]
Fetched 8518 kB in 2s (4655 kB/s)
```

apt install -y wget lsb-release

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- wget : xtrabackup (.deb) 가
- lsb-release : OS

```
root@80bf3def47bd:/# apt install -y wget lsb-release
Reading package lists... Done
Building dependency tree
Reading state information... Done
lsb-release is already the newest version (10.2019051400).
The following additional packages will be installed:
  ca-certificates libpcre2-8-0 libpsl5 publicsuffix
The following NEW packages will be installed:
```

lsb_release -a

- OS

```
root@80bf3def47bd:/# lsb_release -a
No LSB modules are available.
Distributor ID: Debian
Description:    Debian GNU/Linux 10 (buster)
Release:        10
Codename:       buster
```

- xtrabackup

URL : <https://www.percona.com/downloads/Percona-XtraBackup-LATEST/>

Download Percona XtraBackup 8.0

Version:

Percona XtraBackup 8.0.28-21

Software:

Debian GNU/Linux 10.0 ("buster")

Prefer to install from our APT repository? View our [online documentation](#) to learn how.

Download All Packages Together

Percona-XtraBackup-8.0.28-21-r78878e9b608-buster-x86_64-bundle.tar 427.5 MB

Download Packages Separately

percona-xtrabackup-80_8.0.28-21-1.buster_amd64.deb 13.8 MB

percona-xtrabackup-dbg-80_8.0.28-21-1.buster_amd64.deb 406.3 MB

percona-xtrabackup-test-80_8.0.28-21-1.buster_amd64.deb 7.4 MB

- mysql8 , xtrabackup 8

wget

https://downloads.percona.com/downloads/Percona-XtraBackup-LATEST/Percona-XtraBackup-8.0.28-21/binary/debian/buster/x86_64/percona-xtrabackup-80_8.0.28-21-1.buster_amd64.deb

- 가 .

```
root@80bf3def47bd:/usr/local/src# wget https://downloads.percona.com/downloads/Percona-XtraBackup-LATEST/Percona-XtraBackup-8.0.28-21/binary/debian/buster/x86_64/percona-xtrabackup-80_8.0.28-21-1.buster_amd64.deb
2022-06-24 01:16:25 -- https://downloads.percona.com/downloads/Percona-XtraBackup-LATEST/Percona-XtraBackup-8.0.28-21/binary/debian/buster/x86_64/percona-xtrabackup-80_8.0.28-21-1.buster_amd64.deb
Resolving downloads.percona.com (downloads.percona.com)... 162.220.4.221, 162.220.4.222, 74.121.199.231
Connecting to downloads.percona.com (downloads.percona.com)|162.220.4.221|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 14456316 (14M) [application/x-debian-package]
Saving to: 'percona-xtrabackup-80_8.0.28-21-1.buster_amd64.deb'
percona-xtrabackup-80_8.0.28-21-1.buster_amd64.deb 100%[=====] 13.79M 5.42MB/s in 2.4s
2022-06-24 01:16:29 (5.62 MB/s) = 'percona-xtrabackup-80_8.0.28-21-1.buster_amd64.deb' saved [14456316/14456316]
```

```
# dpkg -i percona-xtrabackup-80_8.0.28-21-1.buster_amd64.deb
```

```
# apt install -f -y //
```

```
# dpkg -i percona-xtrabackup-80_8.0.28-21-1.buster_amd64.deb
```

```
root@80bf3def47bd:/usr/local/src# dpkg -i percona-xtrabackup-80_8.0.28-21-1.buster_amd64.deb
(Reading database ... 10725 files and directories currently installed.)
Preparing to unpack percona-xtrabackup-80_8.0.28-21-1.buster_amd64.deb ...
Unpacking percona-xtrabackup-80 (8.0.28-21-1.buster) over (8.0.28-21-1.buster) ...
Setting up percona-xtrabackup-80 (8.0.28-21-1.buster) ...
Processing triggers for libc-bin (2.28-10+deb10u1) ...
```

```
# xtrabackup //
```

```
root@80bf3def47bd:/usr/local/src# xtrabackup
2022-06-24T01:15:41.093145-00:00 0 [Note] [MY-011825] [Xtrabackup] recognized server arguments: --datadir=/var/lib/mysql --innodb_buffer_pool_size=150 --innodb_log_file_size=20 --innodb_log_buffer_size=10 --innodb_file_per_table=1 --innodb_flush_method=O_DIRECT --innodb_log_files_in_group=2 --innodb_flush_log_at_trx_commit=2 --open_files_limit=65535
xtrabackup version 8.0.28-21 based on MySQL server 8.0.28 Linux (x86_64) (revision id: 78878e9b608)
Open source backup tool for InnoDB and XtraDB
```

xtrabackup

가 Full backup

```
# xtrabackup -backup -target-dir=/home/bak/xtra/
```

-
- 가

```

root@80bf3def47bd:/usr/local/src# xtrabackup --backup --target-dir=/home/bak/xtra/
2022-06-24T01:37:38.775373-00:00 0 [Note] [MY-011825] [Xtrabackup] recognized server arguments: --datadir=/var/lib/mysql --innodb_buffer_pool_size=150 --innodb_log_file_size=20 --innodb_log_buffer_size=10 --innodb_file_per_table=1 --innodb_flush_method=O_DIRECT --innodb_log_files_in_group=2 --innodb_flush_log_at_trx_commit=2 --open_files_limit=65535
2022-06-24T01:37:38.775665-00:00 0 [Note] [MY-011825] [Xtrabackup] recognized client arguments: --backup --target-dir=/home/bak/xtra/
xtrabackup version 8.0.28-21 based on MySQL server 8.0.28 Linux (x86_64) (revision id: 78878e9b608)
220624 01:37:38 version_check Connecting to MySQL server with DSN 'dbi:mysql;mysql_read_default_group=xtradb'
220624 01:37:38 version_check Connected to MySQL server
220624 01:37:38 version_check Executing a version check against the server...
220624 01:37:38 version_check Done.
2022-06-24T01:37:38.884687-00:00 0 [Note] [MY-011825] [Xtrabackup] Connecting to MySQL server host: localhost
2022-06-24T01:37:38.893846-00:00 0 [Note] [MY-011825] [Xtrabackup] Using server version 8.0.28
2022-06-24T01:37:38.916458-00:00 0 [Note] [MY-011825] [Xtrabackup] Executing LOCK INSTANCE FOR BACKUP ...
2022-06-24T01:37:38.917416-00:00 0 [Note] [MY-011825] [Xtrabackup] uses posix_fadvise().
2022-06-24T01:37:38.917479-00:00 0 [Note] [MY-011825] [Xtrabackup] cd to /var/lib/mysql
2022-06-24T01:37:38.917527-00:00 0 [Note] [MY-011825] [Xtrabackup] open files limit requested 65535, set to 65535
2022-06-24T01:37:38.917608-00:00 0 [Note] [MY-011825] [Xtrabackup] using the following InnoDB configuration:
2022-06-24T01:37:38.917631-00:00 0 [Note] [MY-011825] [Xtrabackup] innodb_data_home_dir = .
2022-06-24T01:37:38.917647-00:00 0 [Note] [MY-011825] [Xtrabackup] innodb_data_file_path = ibdata1:12M:autoextend:1
2022-06-24T01:37:38.917711-00:00 0 [Note] [MY-011825] [Xtrabackup] innodb_log_group_home_dir = ./
2022-06-24T01:37:38.917744-00:00 0 [Note] [MY-011825] [Xtrabackup] innodb_log_files_in_group = 2
2022-06-24T01:37:38.917780-00:00 0 [Note] [MY-011825] [Xtrabackup] innodb_log_file_size = 2147483648
2022-06-24T01:37:38.917831-00:00 0 [Note] [MY-011825] [Xtrabackup] using O_DIRECT
2022-06-24T01:37:38.918580-00:00 0 [Note] [MY-013251] [InnoDB] Number of pools: 1
2022-06-24T01:37:38.920252-00:00 0 [Note] [MY-011825] [Xtrabackup] initialize_service_handles succeeded
2022-06-24T01:37:41.290606-00:00 0 [Note] [MY-011825] [Xtrabackup] Connecting to MySQL server host: localhost
2022-06-24T01:37:41.296742-00:00 0 [Note] [MY-011825] [Xtrabackup] Redo Log Archiving is not set up.
2022-06-24T01:37:41.392487-00:00 1 [Note] [MY-011825] [Xtrabackup] >> log scanned up to (529087427754)
2022-06-24T01:37:42.392692-00:00 1 [Note] [MY-011825] [Xtrabackup] >> log scanned up to (529087427754)

2022-06-24T02:17:17.624404-00:00 0 [Note] [MY-011825] [Xtrabackup] Transaction log of lsn (529087427754) to (529087427764) was copied
2022-06-24T02:17:17.828066-00:00 0 [Note] [MY-011825] [Xtrabackup] completed OK!
root@80bf3def47bd:/usr/local/src#

```

completed OK!

xtrabackup

Host Machine

```
# exit //
```

```
# docker-compose down // docker compose
```

```
# du -sh /home/data/var/lib/mysql //
```

```
183G /home/data/var/lib/mysql
```

```
# rm -rf /home/data/var/lib/mysql/ //
```

```
root@localhost:/home/data/var/lib# du -sh /home/data/var/lib/mysql
183G /home/data/var/lib/mysql
root@localhost:/home/data/var/lib# rm -rf /home/data/var/lib/mysql/
root@localhost:/home/data/var/lib# du -sh /home/data/var/lib/mysql
du: cannot access '/home/data/var/lib/mysql': No such file or directory
root@localhost:/home/data/var/lib# mkdir /home/data/var/lib/mysql
```

```
# xtrabackup -prepare -target-dir=/home/data/bak/xtra
```

```
▪ (-prepare )
```

```
[Note] [MY-013072] [InnoDB] Starting shutdown...
[Note] [MY-013084] [InnoDB] Log background threads are being closed...
[Note] [MY-012980] [InnoDB] Shutdown completed; log sequence number 529087428118
[Note] [MY-011825] [Xtrabackup] completed OK!
```

```
[Xtrabackup] completed OK!
```

```
# xtrabackup -copy-back -target-dir=/home/data/bak/xtra/
-datadir=/home/data/var/lib/mysql/
```

```
▪
▪ -copy-back , -move-back
(-move-back
.)
```

```
root@localhost:/home/data/var/lib# xtrabackup --copy-back --target-dir=/home/data/bak/xtra/ --datadir=/home/data/var/lib/mysql/
2022-06-27T11:30:46.968828+09:00 0 [Note] [MY-011825] [Xtrabackup] recognized server arguments: --datadir=/home/data/var/lib/mysql/
2022-06-27T11:30:46.969096+09:00 0 [Note] [MY-011825] [Xtrabackup] recognized client arguments: --copy-back=1 --target-dir=/home/data/bak/xtra/
xtrabackup version 8.0.28-21 based on MySQL server 8.0.28 Linux (x86_64) (revision id: 78878e9b608)
2022-06-27T11:30:46.969186+09:00 0 [Note] [MY-011825] [Xtrabackup] cd to /home/data/bak/xtra/
2022-06-27T11:30:46.969971+09:00 0 [Note] [MY-011825] [Xtrabackup] Copying undo_001 to /home/data/var/lib/mysql/undo_001
2022-06-27T15:45:18.761715+09:00 1 [Note] [MY-011825] [Xtrabackup] Done: Copying ./ibtmp1 to /home/data/var/lib/mysql/ibtmp1
2022-06-27T15:45:18.858858+09:00 0 [Note] [MY-011825] [Xtrabackup] completed OK!
```

```
[Xtrabackup] completed OK! //
```

```
▪
```

```
# docker-compose up -d //
```

```
# docker exec -it [Container ID] /bin/bash //
```

```
# du -sh /var/lib/mysql //
```

```
183G /var/lib/mysql //
```

```
root@c8f98b39184d:/# du -sh /var/lib/mysql
183G /var/lib/mysql
```

```
# mysql -u root -p          // mysql
# show databases;          // test db
# use zabbix;
# select * from users;     //
```

```
mysql> select * from users;
+----+-----+
| userid | username |
+----+-----+
| 1      |          |
| 2      |          |
| 3      |          |
| 4      |          |
| 5      |          |
| 6      |          |
| 7      |          |
| 8      |          |
| 9      |          |
| 10     |          |
| 11     |          |
| 12     |          |
| 13     |          |
| 14     |          |
| 15     |          |
| 16     |          |
| 17     |          |
| 18     |          |
| 19     |          |
| 20     |          |
| 21     |          |
| 23     |          |
| 24     |          |
| 25     |          |
| 26     |          |
| 27     |          |
| 28     |          |
| 29     |          |
| 30     |          |
| 31     |          |
| 33     |          |
| 35     |          |
| 36     |          |
+----+-----+
33 rows in set (0.09 sec)
```

가

MariaDB 10.1 Xtrabackup Mariabackup

MariaDB 10.3 Xtrabackup 가 ,

Mariabackup .

- Mariabackup , MariaDB

Xtrabackup .

- URL :

<https://mariadb.com/kb/en/percona-xtrabackup-overview/#compatibility-with-m>

ariadb-103-and-later