

USU Task

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Create Containers

Created two containers MariaDB-Init container and MariaDB container.

```
D: > Task (1) > Task > docker-compose.yml
1  version: '3.6'
2  services:
3    mariadb_init:
4      container_name: mariadb_init
5      build: ./files
6      environment:
7        MYSQL_ROOT_PASSWORD: root
8        HOST: mariadb
9        PORT: 3306
10       USERNAME: root
11       PASSWORD: root
12     depends_on:
13       - mariadb
14     links:
15       - mariadb
16     restart: 'on-failure'
17
18   mariadb:
19     image: mariadb
20     container_name: mariadb
21     environment:
22       - MYSQL_ROOT_PASSWORD=root
23     ports:
24       - 3306:3306
25     restart: 'always'
26
27
```

Docker images

Created the Docker images of MariaDB

```
image: mariadb
container_name: mariadb
environment:
  - MYSQL_ROOT_PASSWORD=root
ports:
  - 3306:3306
restart: 'always'
```

Docker images

Create a Docker image with the SQL file added to it.


```
FROM arey/mysql-client

COPY ./schema.sql ./schema.sql
COPY ./Entry_Point.sh ./Entry_Point.sh

ENTRYPOINT ["./Entry_Point.sh"]
```

SQL file

Used external SQL file added to it.

 schema.sql - Notepad

File Edit Format View Help

```
CREATE DATABASE HEALTHCHECK;  
use HEALTHCHECK;  
CREATE TABLE Healt (Healtcheck int);
```

Docker entry point

Set the Environment variables in the entry point script

- Host
- Port
- Username
- Password

```
mysql -h$HOST -P$PORT -p$PASSWORD -u$USERNAME < schema.sql;  
echo "Schema Created."
```

Docker entry point file

Insert the SQL database file.

```
COPY ./schema.sql ./schema.sql
```

```
COPY ./Entry_Point.sh ./Entry_Point.sh
```

```
ENTRYPOINT ["./Entry_Point.sh"]
```

Initialize Container

The first external database finishes initializing before running the MariaDB container

```
until mysqladmin ping -h"mariadb" -P"3306" --silent
do
    echo "Waiting For MariaDB Container."
    sleep 5
done

echo "Trying to connect with Mariadb"

mysql -h$HOST -P$PORT -p$PASSWORD -u$USERNAME < schema.sql;
echo "Schema Created."
```


Running Docker-compose file

```
chemotion@BASDA-5663:/mnt/d/USU$ docker-compose up
Creating network "usu_default" with the default driver
Building mariadb_init
Step 1/4 : FROM arey/mysql-client
---> 5d4b8f7cb67a
Step 2/4 : COPY ./schema.sql ./schema.sql
---> Using cache
---> ccd08992f865
Step 3/4 : COPY ./Entry_Point.sh ./Entry_Point.sh
---> f6731042ca70
Step 4/4 : ENTRYPOINT ["./Entry_Point.sh"]
---> Running in 851aac8e8529
Removing intermediate container 851aac8e8529
---> 65a97746e41b

Successfully built 65a97746e41b
```

Create Docker entry point script

```
$ _ Entry_Point.sh X
Task > files > $ _ Entry_Point.sh
1  #!/bin/sh
2
3  until mysqladmin ping -h"mariadb" -P"3306" --silent
4  do
5      echo "Waiting For MariaDB Container."
6      sleep 5
7  done
8
9  echo "Trying to connect with Mariadb"
10
11 mysql -h$HOST -P$PORT -p$PASSWORD -u$USERNAME < schema.sql;
12 echo "Schema Created."
```

Running Containers

```
chemotion@BASDA-5663:/mnt/d/USU$ docker-compose up
Creating network "usu_default" with the default driver
Creating mariadb ... done
Creating mariadb_init ... done
```

Creating Image

```
mariadb | 2021-09-27 9:56:45 0 [Warning] 'proxies_priv' entry '@% root@1b4a6581a1b4' ignored in --skip-name-resolve mode.
mariadb | 2021-09-27 9:56:45 0 [Note] InnoDB: Buffer pool(s) load completed at 210927 9:56:45
mariadb | 2021-09-27 9:56:45 0 [Note] mysqld: ready for connections.
mariadb | Version: '10.6.4-MariaDB-1:10.6.4+maria~focal' socket: '/run/mysqld/mysqld.sock' port: 0 mariadb.org binary distribution
mariadb | 2021-09-27 09:56:46+00:00 [Note] [Entrypoint]: Temporary server started.
mariadb | Warning: Unable to load '/usr/share/zoneinfo/leap-seconds.list' as time zone. Skipping it.
mariadb | Warning: Unable to load '/usr/share/zoneinfo/leapseconds' as time zone. Skipping it.
mariadb | Warning: Unable to load '/usr/share/zoneinfo/tzdata.zi' as time zone. Skipping it.
mariadb | 2021-09-27 9:56:48 5 [Warning] 'proxies_priv' entry '@% root@1b4a6581a1b4' ignored in --skip-name-resolve mode.
mariadb |
mariadb | 2021-09-27 09:56:48+00:00 [Note] [Entrypoint]: Stopping temporary server
mariadb | 2021-09-27 9:56:48 0 [Note] mysqld (initiated by: root[root] @ localhost []): Normal shutdown
mariadb | 2021-09-27 9:56:48 0 [Note] InnoDB: FTS optimize thread exiting.
mariadb | 2021-09-27 9:56:48 0 [Note] InnoDB: Starting shutdown...
mariadb | 2021-09-27 9:56:48 0 [Note] InnoDB: Dumping buffer pool(s) to /var/lib/mysql/ib_buffer_pool
mariadb | 2021-09-27 9:56:48 0 [Note] InnoDB: Buffer pool(s) dump completed at 210927 9:56:48
mariadb | 2021-09-27 9:56:48 0 [Note] InnoDB: Removed temporary tablespace data file: "ibtmp1"
mariadb | 2021-09-27 9:56:48 0 [Note] InnoDB: Shutdown completed; log sequence number 42323; transaction id 15
mariadb | 2021-09-27 9:56:48 0 [Note] mysqld: Shutdown complete
mariadb |
mariadb | 2021-09-27 09:56:49+00:00 [Note] [Entrypoint]: Temporary server stopped
mariadb |
mariadb | 2021-09-27 09:56:49+00:00 [Note] [Entrypoint]: MariaDB init process done. Ready for start up.
mariadb |
mariadb | 2021-09-27 9:56:49 0 [Note] mysqld (server 10.6.4-MariaDB-1:10.6.4+maria~focal) starting as process 1 ...
mariadb | 2021-09-27 9:56:49 0 [Note] InnoDB: Compressed tables use zlib 1.2.11
mariadb | 2021-09-27 9:56:49 0 [Note] InnoDB: Number of pools: 1
mariadb | 2021-09-27 9:56:49 0 [Note] InnoDB: Using crc32 + pclmulqdq instructions
mariadb | 2021-09-27 9:56:49 0 [Note] mysqld: O_TMPFILE is not supported on /tmp (disabling future attempts)
mariadb | 2021-09-27 9:56:49 0 [Note] InnoDB: Using Linux native AIO
mariadb | 2021-09-27 9:56:49 0 [Note] InnoDB: Initializing buffer pool, total size = 134217728, chunk size = 134217728
mariadb | 2021-09-27 9:56:49 0 [Note] InnoDB: Completed initialization of buffer pool
mariadb | 2021-09-27 9:56:49 0 [Note] InnoDB: 128 rollback segments are active.
mariadb | 2021-09-27 9:56:49 0 [Note] InnoDB: Creating shared tablespace for temporary tables
mariadb | 2021-09-27 9:56:49 0 [Note] InnoDB: Setting file './ibtmp1' size to 12 MB. Physically writing the file full; Please wait ...
mariadb | 2021-09-27 9:56:49 0 [Note] InnoDB: File './ibtmp1' size is now 12 MB.
mariadb | 2021-09-27 9:56:49 0 [Note] InnoDB: 10.6.4 started; log sequence number 42323; transaction id 14
mariadb | 2021-09-27 9:56:49 0 [Note] InnoDB: Loading buffer pool(s) from /var/lib/mysql/ib_buffer_pool
mariadb | 2021-09-27 9:56:49 0 [Note] Plugin 'FEEDBACK' is disabled.
mariadb | 2021-09-27 9:56:49 0 [Warning] You need to use --log-bin to make --expire-logs-days or --binlog-expire-logs-seconds work.
mariadb | 2021-09-27 9:56:49 0 [Note] Server socket created on IP: '0.0.0.0'.
mariadb | 2021-09-27 9:56:49 0 [Note] Server socket created on IP: '::'.
mariadb | 2021-09-27 9:56:49 0 [Warning] 'proxies_priv' entry '@% root@1b4a6581a1b4' ignored in --skip-name-resolve mode.
mariadb | 2021-09-27 9:56:49 0 [Note] InnoDB: Buffer pool(s) load completed at 210927 9:56:49
mariadb | 2021-09-27 9:56:49 0 [Note] mysqld: ready for connections.
mariadb | Version: '10.6.4-MariaDB-1:10.6.4+maria~focal' socket: '/run/mysqld/mysqld.sock' port: 3306 mariadb.org binary distribution
mariadb | 2021-09-27 9:56:49 3 [Warning] Access denied for user 'root'@'172.25.0.3' (using password: NO)
mariadb init | Trying to connect with Mariadb
```

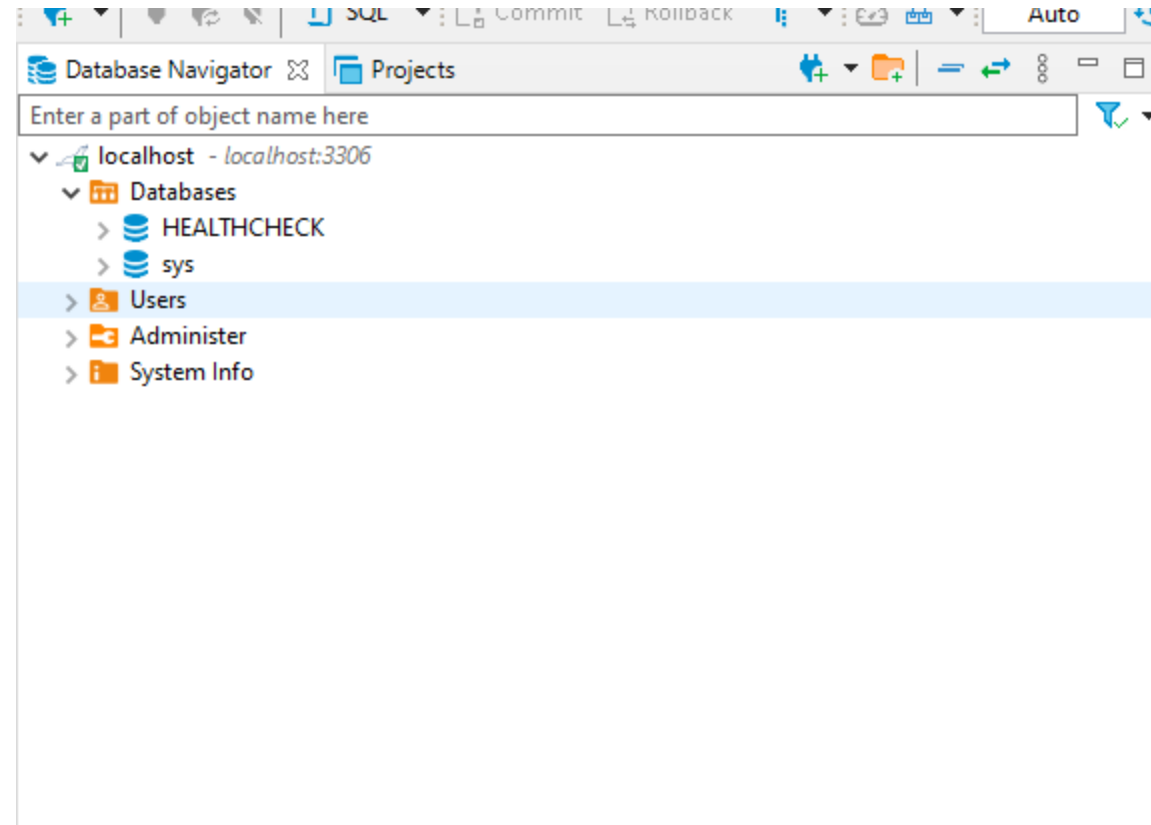
Exited Mariadb_init container

```
mariadb | 2021-09-27 9:56:48 0 [Note] mysqld: Shutdown complete
mariadb |
mariadb | 2021-09-27 09:56:49+00:00 [Note] [Entrypoint]: Temporary server stopped
mariadb |
mariadb | 2021-09-27 09:56:49+00:00 [Note] [Entrypoint]: MariaDB init process done. Ready for start up.
mariadb |
mariadb | 2021-09-27 9:56:49 0 [Note] mysqld (server 10.6.4-MariaDB-1:10.6.4+maria~focal) starting as process 1 ...
mariadb | 2021-09-27 9:56:49 0 [Note] InnoDB: Compressed tables use zlib 1.2.11
mariadb | 2021-09-27 9:56:49 0 [Note] InnoDB: Number of pools: 1
mariadb | 2021-09-27 9:56:49 0 [Note] InnoDB: Using crc32 + pclmulqdq instructions
mariadb | 2021-09-27 9:56:49 0 [Note] mysqld: O_TMPFILE is not supported on /tmp (disabling future attempts)
mariadb | 2021-09-27 9:56:49 0 [Note] InnoDB: Using Linux native AIO
mariadb | 2021-09-27 9:56:49 0 [Note] InnoDB: Initializing buffer pool, total size = 134217728, chunk size = 134217728
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mariadb | 2021-09-27 9:56:49 0 [Note] InnoDB: File './ibtmp1' size is now 12 MB.
mariadb | 2021-09-27 9:56:49 0 [Note] InnoDB: 10.6.4 started; log sequence number 42323; transaction id 14
mariadb | 2021-09-27 9:56:49 0 [Note] InnoDB: Loading buffer pool(s) from /var/lib/mysql/ib_buffer_pool
mariadb | 2021-09-27 9:56:49 0 [Note] Plugin 'FEEDBACK' is disabled.
mariadb | 2021-09-27 9:56:49 0 [Warning] You need to use --log-bin to make --expire-logs-days or --binlog-expire-logs-seconds work.
mariadb | 2021-09-27 9:56:49 0 [Note] Server socket created on IP: '0.0.0.0'.
mariadb | 2021-09-27 9:56:49 0 [Note] Server socket created on IP: '::'.
mariadb | 2021-09-27 9:56:49 0 [Warning] 'proxies_priv' entry '@% root@1b4a6581a1b4' ignored in --skip-name-resolve mode.
mariadb | 2021-09-27 9:56:49 0 [Note] InnoDB: Buffer pool(s) load completed at 210927 9:56:49
mariadb | 2021-09-27 9:56:49 0 [Note] mysqld: ready for connections.
mariadb | Version: '10.6.4-MariaDB-1:10.6.4+maria~focal' socket: '/run/mysqld/mysqld.sock' port: 3306 mariadb.org binary distribution
mariadb | 2021-09-27 9:56:49 3 [Warning] Access denied for user 'root'@'172.25.0.3' (using password: NO)
mariadb_init | Trying to connect with Mariadb
mariadb_init | Schemna Created.
mariadb_init exited with code 0
```

Database into our container

Column Name	#	Data Type	Not Null	Auto Increment	Key	Default	Extra	Expression	Comment
123 Healthcheck	1	int(11)	[]	[]		NULL			

Show existing database into mysql



Result

The screenshot displays a database management interface. On the left, a tree view shows the database structure: **localhost - localhost:3306** > **Databases** > **HEALTHCHECK** > **Tables** > **Healt** (16K). The main panel shows the **Properties** tab for the **Healt** table. The table name is **Healt**, the engine is **InnoDB**, the auto increment is **0**, the charset is **utf8mb4**, and the collation is **utf8mb4_general_ci**. Below the properties, a table lists the columns and their attributes.

Column Name	#	Data Type	Not Null	Auto Increment	Key	Default	Extra	Expression	Comment
123Healtcheck	1	int(11)	[]	[]		NULL			