

1. run a container from it || add this option to the docker run command --env MARIADB_ROOT_PASSWORD=my-secret-pw:

```
soha@ubuntu:~/dept_r3/lec9$ docker run --env MARIADB_ROOT_PASSWORD=my-secret-pw mariadb
2025-07-26 21:07:34+00:00 [Note] [Entrypoint]: Entrypoint script for MariaDB Server 1:11.8.2+maria-ubu2404 started.
2025-07-26 21:07:34+00:00 [Warn] [Entrypoint]: /sys/fs/cgroup//memory.pressure not writable, functionality unavailable
to MariaDB
2025-07-26 21:07:34+00:00 [Note] [Entrypoint]: Switching to dedicated user 'mysql'
2025-07-26 21:07:34+00:00 [Note] [Entrypoint]: Entrypoint script for MariaDB Server 1:11.8.2+maria-ubu2404 started.
2025-07-26 21:07:34+00:00 [Note] [Entrypoint]: Initializing database files
2025-07-26 21:07:34 0 [Warning] mariadbd: io_uring_queue_init() failed with EPERM: sysctl kernel.io_uring_disabled has t
he value 2, or 1 and the user of the process is not a member of sysctl kernel.io_uring_group. (see man 2 io_uring_setup)
.
2025-07-26 21:07:34 0 [Warning] InnoDB: liburing disabled: falling back to innodb_use_native_aio=OFF
2025-07-26 21:07:36+00:00 [Note] [Entrypoint]: Database files initialized
2025-07-26 21:07:36+00:00 [Note] [Entrypoint]: Starting temporary server
2025-07-26 21:07:36+00:00 [Note] [Entrypoint]: Waiting for server startup
2025-07-26 21:07:36 0 [Note] Starting MariaDB 11.8.2-MariaDB-ubu2404 source revision 8d36cafe4fc700e6e577d5a36650c58707e
76b92 server_uid TrvZ39KMBqPA7FGRvRURhhaJGko= as process 90
2025-07-26 21:07:36 0 [Note] InnoDB: Compressed tables use zlib 1.3
2025-07-26 21:07:36 0 [Note] InnoDB: Number of transaction pools: 1
2025-07-26 21:07:36 0 [Note] InnoDB: Using crc32 + pclmulqdq instructions
2025-07-26 21:07:36 0 [Warning] mariadbd: io_uring_queue_init() failed with EPERM: sysctl kernel.io_uring_disabled has t
he value 2, or 1 and the user of the process is not a member of sysctl kernel.io_uring_group. (see man 2 io_uring_setup)
.
2025-07-26 21:07:36 0 [Warning] InnoDB: liburing disabled: falling back to innodb_use_native_aio=OFF
2025-07-26 21:07:36 0 [Note] InnoDB: innodb_buffer_pool_size_max=128m, innodb_buffer_pool_size=128m
2025-07-26 21:07:36 0 [Note] InnoDB: Completed initialization of buffer pool
2025-07-26 21:07:36 0 [Note] InnoDB: File system buffers for log disabled (block size=512 bytes)
2025-07-26 21:07:36 0 [Note] InnoDB: End of log at LSN=47763
2025-07-26 21:07:36 0 [Note] InnoDB: Opened 3 undo tablespaces
2025-07-26 21:07:36 0 [Note] InnoDB: 128 rollback segments in 3 undo tablespaces are active.
2025-07-26 21:07:36 0 [Note] InnoDB: Setting file './ibtmp1' size to 12.000MiB. Physically writing the file full; Please
wait ...
2025-07-26 21:07:36 0 [Note] InnoDB: File './ibtmp1' size is now 12.000MiB.
2025-07-26 21:07:36 0 [Note] InnoDB: log sequence number 47763; transaction id 14
```

2. name the container <yourname>-maridadb:

```
soha@ubuntu:~$ docker run -d -p 3306:3306 --name sohaa --env MARIADB_ROOT_PASSWORD=my-secret-pw mariadb
845c3455917ea6c25b676364b3e39dd3d12e1733f56e87f1fd8a54d9342355b1
```

3. portforward port 3306 from the host to the same port inside the container:
4. make sure that the container runs in the detached mode:

```
soha@ubuntu:~$ docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS
NAMES
845c3455917e   mariadb   "docker-entrypoint.s..." 6 seconds ago  Up 5 seconds  0.0.0.0:3306->3306/tcp, [::]:3306->3306
/tcp sohaa
soha@ubuntu:~$ docker login
```

5. Create account in Dockerhub:

```
soha@ubuntu:~$ docker login

USING WEB-BASED LOGIN

Info → To sign in with credentials on the command line, use 'docker login -u <username>'

Your one-time device confirmation code is: XHCW-MBBG
Press ENTER to open your browser or submit your device code here: https://login.docker.com/activation
Waiting for authentication in the browser...

WARNING! Your credentials are stored unencrypted in '/home/soha/.docker/config.json'.
Configure a credential helper to remove this warning. See
https://docs.docker.com/go/credential-store/

Login Succeeded
```

- run a second container from the same image:

```
soha@ubuntu:~$ docker run -d -p 3307:3306 --name soha2 --env MARIADB_ROOT_PASSWORD=my-secret-pw mariadb
926a6d622667d7ca1f9ec32b239a55d4c0ec5541289875e23e6d3e24d203161e
```

- list the running containers:

```
soha@ubuntu:~$ docker ps
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS
926a6d622667	mariadb	"docker-entrypoint.s..."	3 seconds ago	Up 3 seconds	0.0.0.0:3307->3306/tcp, [::]:3307->3306/tcp soha2
845c3455917e	mariadb	"docker-entrypoint.s..."	8 minutes ago	Up 8 minutes	0.0.0.0:3306->3306/tcp, [::]:3306->3306/tcp sohaa

- Search how to get the default port the service inside the container is listening on:

```
soha@ubuntu:~$ docker inspect sohaa
```

```
[
  {
    "Config": {
      "Hostname": "845c3455917e",
      "Domainname": "",
      "User": "",
      "AttachStdin": false,
      "AttachStdout": false,
      "AttachStderr": false,
      "ExposedPorts": {
        "3306/tcp": {}
      },
      "Tty": false,
```