

**Universidad Galileo**  
**Maestría en Data Science**  
**Product Development**  
**Ing. Obed Espinoza**



## **Comandos Semana No.2**

**Rafael Augusto Cantoral Segura**

**Carne 21006405**

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## Comandos Docker

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A continuación, se presentan los comandos ejecutados en consola para Docker.

### Docker --version

```
PS C:\Users\Rafael Cantoral> docker --version
Docker version 20.10.8, build 3967b7d
PS C:\Users\Rafael Cantoral>
```

### Docker run hello-world

```
PS C:\Users\Rafael Cantoral> docker run hello-world
Unable to find image 'hello-world:latest' locally
latest: Pulling from library/hello-world
2db29710123e: Pull complete
Digest: sha256:37a0b92b08d4919615c3ee023f7ddb068d12b8387475d64c622ac30f45c29c51
Status: Downloaded newer image for hello-world:latest

Hello from Docker!
This message shows that your installation appears to be working correctly.

To generate this message, Docker took the following steps:
 1. The Docker client contacted the Docker daemon.
 2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
    (amd64)
 3. The Docker daemon created a new container from that image which runs the
    executable that produces the output you are currently reading.
 4. The Docker daemon streamed that output to the Docker client, which sent it
    to your terminal.

To try something more ambitious, you can run an Ubuntu container with:
$ docker run -it ubuntu bash

Share images, automate workflows, and more with a free Docker ID:
https://hub.docker.com/

For more examples and ideas, visit:
https://docs.docker.com/get-started/

PS C:\Users\Rafael Cantoral>
```

### Docker pull busybox

```
PS C:\Users\Rafael Cantoral> docker pull busybox
Using default tag: latest
latest: Pulling from library/busybox
01c2cdc13739: Pull complete
Digest: sha256:15e927f78df2cc772b70713543d6b651e3cd8370abf86b2ea4644a9fba21107f
Status: Downloaded newer image for busybox:latest
docker.io/library/busybox:latest
PS C:\Users\Rafael Cantoral>
```

## Docker images

```
PS C:\Users\Rafael Cantoral> docker images
REPOSITORY          TAG         IMAGE ID      CREATED        SIZE
jupyter/base-notebook latest      8a28b7cb4a05 36 hours ago  675MB
busybox              latest      cabb9f684f8b 2 days ago    1.24MB
mysql                5.7.35     8a8a506ccfdc 2 weeks ago   448MB
hello-world          latest      feb5d9fea6a5 5 weeks ago   13.3kB
PS C:\Users\Rafael Cantoral>
```

## Docker run busybox echo “Hello World”

```
PS C:\Users\Rafael Cantoral> docker run busybox echo "Hello World"
Hello World
PS C:\Users\Rafael Cantoral>
```

## Docker ps

```
PS C:\Users\Rafael Cantoral> docker ps
CONTAINER ID   IMAGE          COMMAND                  CREATED    STATUS    PORTS                               NAMES
7bb56525c275  mysql:5.7.35  "docker-entrypoint.s..." 8 hours ago Up 8 hours    0.0.0.0:3306->3306/tcp, 33060/tcp  product-mysql-1
c9a494e97e86  jupyter/base-notebook "tini -g -- start-no..." 8 hours ago Up 8 hours    0.0.0.0:8888->8888/tcp  product-jupyter-1
PS C:\Users\Rafael Cantoral>
```

## Docker ps -a

```
PS C:\Users\Rafael Cantoral> docker ps -a
CONTAINER ID   IMAGE          COMMAND                  CREATED    STATUS    PORTS                               NAMES
beadb8f946d    busybox        "echo 'Hello World'"    3 minutes ago Exited (0) 3 minutes ago                               reverent_varahamihira
f239ba15186c    hello-world    "/hello"                 48 minutes ago Exited (0) 48 minutes ago                               silly_lawitt
7bb56525c275  mysql:5.7.35  "docker-entrypoint.s..." 8 hours ago Up 8 hours    0.0.0.0:3306->3306/tcp, 33060/tcp  product-mysql-1
c9a494e97e86  jupyter/base-notebook "tini -g -- start-no..." 8 hours ago Up 8 hours    0.0.0.0:8888->8888/tcp  product-jupyter-1
c9a494e97e86  mysql:5.7.35  "docker-entrypoint.s..." 9 hours ago Exited (0) 8 hours ago                               cranky_ishizaka
ee97f0d888cb  jupyter/base-notebook "tini -g -- start-no..." 9 hours ago Exited (0) 8 hours ago                               confident_chaum
8a28b7cb4a05  jupyter/base-notebook "tini -g -- start-no..." 9 hours ago Created                                             elated_moser
cc38be36c8bd  mysql:5.7.35  "docker-entrypoint.s..." 9 hours ago Exited (0) 9 hours ago                               strange_dhawan
641af263ff41  jupyter/base-notebook "tini -g -- start-no..." 9 hours ago Exited (0) 9 hours ago                               upbeat_kare
PS C:\Users\Rafael Cantoral>
```

```
PS C:\Users\Rafael Cantoral> docker run -it busybox sh
/ # ls
bin  dev  etc  home  proc  root  sys  tmp  usr  var
/ # uptime
04:31:22 up 7:05, 0 users, load average: 0.00, 0.00, 0.00
/ #
```

## Docker run -p 8889:8889 jupyter/base-notebook

```
PS C:\Users\Rafael Cantoral> docker run -p 8889:8889 jupyter/base-notebook
WARN: Jupyter Notebook deprecation notice https://github.com/jupyter/docker-stacks#jupyter-notebook-deprecation-notice.
Executing the command: Jupyter Notebook
[I 04:47:33.720 NotebookApp] Writing notebook server cookie secret to /home/jovyan/.local/share/jupyter/runtime/notebook_cookie_secret
[W 2021-10-30 04:47:36.313 LabApp] 'ip' has moved from NotebookApp to ServerApp. This config will be passed to ServerApp. Be sure to update your config before our next release.
[W 2021-10-30 04:47:36.313 LabApp] 'port' has moved from NotebookApp to ServerApp. This config will be passed to ServerApp. Be sure to update your config before our next release.
[W 2021-10-30 04:47:36.314 LabApp] 'port' has moved from NotebookApp to ServerApp. This config will be passed to ServerApp. Be sure to update your config before our next release.
[W 2021-10-30 04:47:36.314 LabApp] 'port' has moved from NotebookApp to ServerApp. This config will be passed to ServerApp. Be sure to update your config before our next release.
[I 2021-10-30 04:47:36.335 LabApp] JupyterLab extension loaded from /opt/conda/lib/python3.9/site-packages/jupyterlab
[I 2021-10-30 04:47:36.335 LabApp] JupyterLab application directory is /opt/conda/share/jupyter/lab
[I 04:47:36.354 NotebookApp] Serving notebooks from local directory: /home/jovyan
[I 04:47:36.354 NotebookApp] Jupyter Notebook 6.4.0 is running at:
[I 04:47:36.354 NotebookApp] http://b9e3a00d5c9:8888/?token=eed8e9e79e9ccea76b4e8b3f1ff1d07af48e39ad09b3c38
[I 04:47:36.354 NotebookApp] or http://127.0.0.1:8888/?token=eed8e9e79e9ccea76b4e8b3f1ff1d07af48e39ad09b3c38
[I 04:47:36.354 NotebookApp] Use Control-C to stop this server and shut down all kernels (twice to skip confirmation).
[C 04:47:36.367 NotebookApp]

To access the notebook, open this file in a browser:
File: /home/jovyan/.local/share/jupyter/runtime/nbserver-8-open.html
Or copy and paste one of these URLs:
http://b9e3a00d5c9:8888/?token=eed8e9e79e9ccea76b4e8b3f1ff1d07af48e39ad09b3c38
or http://127.0.0.1:8888/?token=eed8e9e79e9ccea76b4e8b3f1ff1d07af48e39ad09b3c38
```

## Docker network create --driver bridge my\_test

```
PS C:\Users\Rafael Cantoral> docker network create --driver bridge my_test
Error response from daemon: network with name my_test already exists
PS C:\Users\Rafael Cantoral>
```

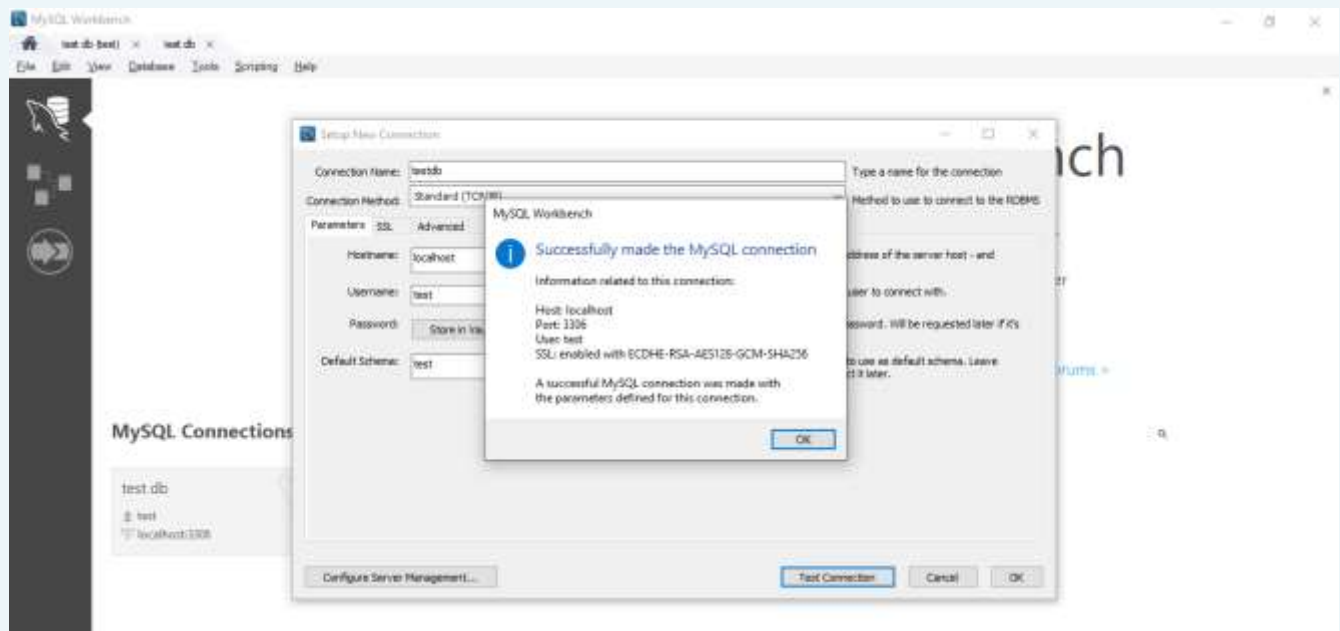
## Docker stop name

```
PS C:\Users\Rafael Cantoral> docker stop xenodochial_matsumoto
xenodochial_matsumoto
PS C:\Users\Rafael Cantoral>
```

## Run Mysql Container

```
PS C:\Users\Rafael Cantoral> docker run -it --network my_test -e "MYSQL_ROOT_PASSWORD=root123" -e "MYSQL_DATABASE=mysql" -e "MYSQL_USER=root" -e "MYSQL_PASSWORD=root123" -p 3306:3306 mysql:5.7.35
2021-10-29 19:36:08+00:00 [Note] [Entrypoint]: Entrypoint script for MySQL Server 5.7.35-1deb10.10 started.
2021-10-29 19:36:08+00:00 [Note] [Entrypoint]: Switching to dedicated user 'mysql'
2021-10-29 19:36:08+00:00 [Note] [Entrypoint]: Entrypoint script for MySQL Server 5.7.35-1deb10.10 started.
2021-10-29 19:36:08+00:00 [Note] [Entrypoint]: Initializing database files
2021-10-29T19:36:08.915179Z [Warning] TIMESTAMP with implicit DEFAULT value is deprecated. Please use --explicit_defaults_for_timestamp server option (see documentation for more details).
2021-10-29T19:36:09.269473Z [Warning] InnoDB: New log files created, 15W=45790
2021-10-29T19:36:09.381542Z [Warning] InnoDB: Creating foreign key constraint system tables.
2021-10-29T19:36:09.413586Z [Warning] No existing UUID has been found, so we assume that this is the first time that this server has been started. Generating a new UUID: 7774f983-38ef-11ec-a798-001636128002.
2021-10-29T19:36:09.422026Z [Warning] Gtid table is not ready to be used. Table 'mysql.gtid_executed' cannot be opened.
2021-10-29T19:36:10.060681Z [Warning] A deprecated TLS version TLSv1 is enabled. Please use TLSv1.2 or higher.
2021-10-29T19:36:10.067182Z [Warning] A deprecated TLS version TLSv1.1 is enabled. Please use TLSv1.2 or higher.
2021-10-29T19:36:10.068315Z [Warning] CA certificate ca.pem is self signed.
2021-10-29T19:36:11.010050Z [Warning] root@localhost is created with an empty password ! Please consider switching off the --initialize-insecure option.
2021-10-29 19:36:15+00:00 [Note] [Entrypoint]: Database files initialized
2021-10-29 19:36:15+00:00 [Note] [Entrypoint]: Starting temporary server
2021-10-29 19:36:15+00:00 [Note] [Entrypoint]: Waiting for server startup
2021-10-29T19:36:15.776245Z [Warning] TIMESTAMP with implicit DEFAULT value is deprecated. Please use --explicit_defaults_for_timestamp server option (see documentation for more details).
2021-10-29T19:36:15.748169Z [Note] mysqld (mysqld 5.7.35) starting as process 78 ...
2021-10-29T19:36:15.749226Z [Note] InnoDB: PUNCH HOLE support available
2021-10-29T19:36:15.749320Z [Note] InnoDB: Mutexes and rw_locks use GCC atomic builtins
2021-10-29T19:36:15.749342Z [Note] InnoDB: Uses event mutexes
2021-10-29T19:36:15.749355Z [Note] InnoDB: GCC builtin __atomic_thread_fence() is used for memory barrier
2021-10-29T19:36:15.749412Z [Note] InnoDB: Compressed tables use zlib 1.2.11
2021-10-29T19:36:15.749422Z [Note] InnoDB: Using linux native AIO
2021-10-29T19:36:15.750041Z [Note] InnoDB: Number of pools: 1
2021-10-29T19:36:15.751445Z [Note] InnoDB: Using CPU crc32 instructions
2021-10-29T19:36:15.750020Z [Note] InnoDB: Initializing buffer pool, total size = 128M, instances = 1, chunk size = 128M
2021-10-29T19:36:15.783377Z [Note] InnoDB: Completed initialization of buffer pool
2021-10-29T19:36:15.793811Z [Note] InnoDB: If the mysqld execution user is authorized, page cleaner thread priority can be changed. See the man page of setpriority().
2021-10-29T19:36:15.811832Z [Note] InnoDB: Highest supported file format is Barracuda.
2021-10-29T19:36:15.840458Z [Note] InnoDB: Creating shared tablespace for temporary tables.
2021-10-29T19:36:15.840612Z [Note] InnoDB: Setting file './ibtmp1' size to 12 MB. Physically writing the file full; Please wait ...
2021-10-29T19:36:15.856897Z [Note] InnoDB: File './ibtmp1' size is now 12 MB.
2021-10-29T19:36:15.856897Z [Note] InnoDB: 96 redo rollback segment(s) found. 96 redo rollback segment(s) are active.
2021-10-29T19:36:15.856897Z [Note] InnoDB: 32 non-redo rollback segment(s) are active.
2021-10-29T19:36:15.905780Z [Note] InnoDB: 5.7.35 started; log sequence number 2740118
2021-10-29T19:36:15.904117Z [Note] InnoDB: Loading buffer pool(s) from /var/lib/mysql/ib_buffer_pool
2021-10-29T19:36:15.909632Z [Note] Plugin 'FEDERATED' is disabled.
2021-10-29T19:36:15.909632Z [Note] InnoDB: Buffer pool(s) load completed at 211029 19:36:15
```

## MYSOL Workbench Connection



## Docker Compose Connection

