
T1.1: Trabajando con MySQL

Big Data Aplicado

17/12/2024 - IES Fernando Wirtz

Constantin Madalin Ismana

Fecha	Motivo del cambio
17/12/2024	Versión inicial
17/12/2024	Inicio de la tarea
18/12/2024	Instalación del Pentaho

Índice

Instalamos el paquete de Openssh-server.....	2
Creación de la base de datos.....	3
Editamos o Archivo SQL.....	4
Contraseña del Root.....	5
Modo Interactivo Mysql.....	6
Ajustes de DBeaver.....	7
Consultas SQL.....	8
Instalacion de Pentaho.....	9

Instalamos el paquete de Openssh-server

Vamos a instalar el servidor de openssh, con el siguiente comando

```
(base) cmadalini@A23P169C:~$ sudo apt-get install openssh-server
[sudo] password for cmadalini:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
openssh-server is already the newest version (1:9.2p1-2+deb12u3).
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
(base) cmadalini@A23P169C:~$ |
```

Creación de la base de datos

Creamos el contenedor, la base de datos con el usuario y contraseña, mas añadimos otro contenedor en el mismo que creamos con el siguiente comando.

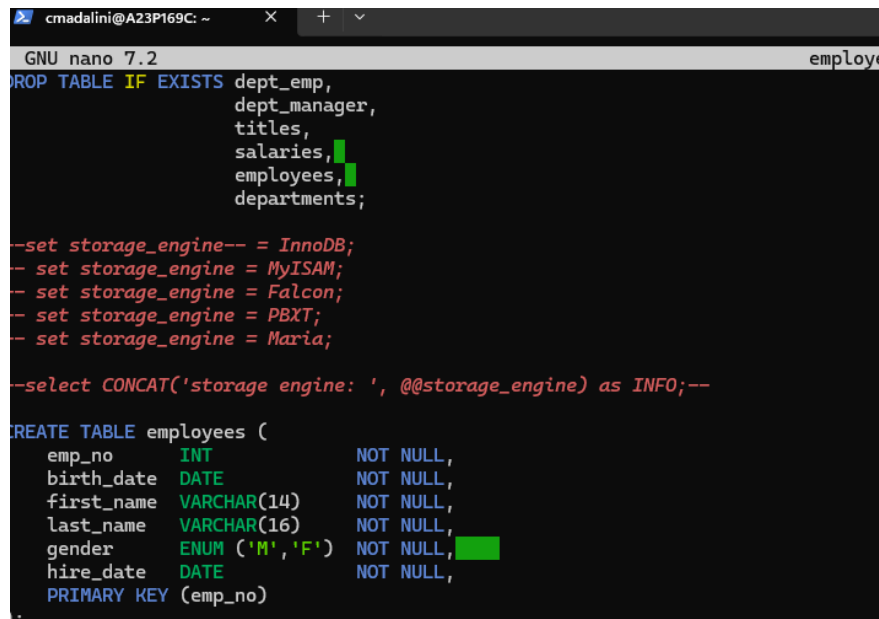
```
docker run -p 9906:3306 --name contedor_mysql -v datosmysql:/var/lib/mysql -v /home/cmadalini/employees_db:/employees_db -e MYSQL_RANDOM_ROOT_PASSWORD=1 -e MYSQL_DATABASE=basededatos -e MYSQL_USER=usuario -e MYSQL_PASSWORD=Contrasinal123. --restart unless-stopped -d mysql:8
```

```
v upgraded, 0 newly installed, 0 to remove and 0 not upgraded.  
(base) cmadalini@A23P169C:~$ docker run -p 9906:3306 --name contedor_mysql -v datosmysql:/var/lib/mysql -v /home/cmadalini/employees_db:/employees_db -e MYSQL_RANDOM_ROOT_PASSWORD=1 -e MYSQL_DATABASE=basededatos -e MYSQL_USER=usuario -e MYSQL_PASSWORD=Contrasinal123. --restart unless-stopped -d mysql:8
```

Editamos o Archivo SQL

Editamos el archivo employees.sql para que no nos salga un error.

nano employees_db/employees.sql



```
GNU nano 7.2 employees.sql
DROP TABLE IF EXISTS dept_emp,
dept_manager,
titles,
salaries,
employees,
departments;

--set storage_engine-- = InnoDB;
-- set storage_engine = MyISAM;
-- set storage_engine = Falcon;
-- set storage_engine = PBXT;
-- set storage_engine = Maria;

--select CONCAT('storage engine: ', @@storage_engine) as INFO;--

CREATE TABLE employees (
  emp_no      INT          NOT NULL,
  birth_date  DATE         NOT NULL,
  first_name  VARCHAR(14)  NOT NULL,
  last_name   VARCHAR(16)  NOT NULL,
  gender      ENUM ('M','F') NOT NULL,
  hire_date   DATE         NOT NULL,
  PRIMARY KEY (emp_no)
```

Contraseña del Root

Buscamos la contraseña del root que es aleatoria con el siguiente comando:

`docker logs contedor_mysql|grep GENERATED`

```
cmadalini@A23P169C: ~$ docker logs contedor_mysql|grep GENERATED
2024-12-17T16:10:08.615330Z 13 [System] [MY-013172] [Server] Received SHUTDOWN from user root. Shutting down mysqld (Version: 8.4.3).
2024-12-17T16:10:09.738035Z 0 [System] [MY-010910] [Server] /usr/sbin/mysqld: Shutdown complete (mysqld 8.4.3)  MySQL Community Server - GPL.
2024-12-17T16:10:09.738072Z 0 [System] [MY-015016] [Server] MySQL Server - end.
2024-12-17 16:10:08+00:00 [Note] [Entrypoint]: GENERATED ROOT PASSWORD: Ew0DysZwFzEsm3xbMT1om1+XzsJvE/E
2024-12-17T16:10:10.631081Z 0 [System] [MY-015015] [Server] MySQL Server - start.
2024-12-17T16:10:10.844792Z 0 [System] [MY-010116] [Server] /usr/sbin/mysqld (mysqld 8.4.3) starting as process 1
2024-12-17T16:10:10.855351Z 1 [System] [MY-013576] [InnoDB] InnoDB initialization has started.
2024-12-17T16:10:11.216272Z 1 [System] [MY-013577] [InnoDB] InnoDB initialization has ended.
2024-12-17T16:10:11.515882Z 0 [Warning] [MY-010068] [Server] CA certificate ca.pem is self signed.
2024-12-17T16:10:11.515926Z 0 [System] [MY-013602] [Server] Channel mysql_main configured to support TLS. Encrypted connections are now supported for this channel.
2024-12-17T16:10:11.520484Z 0 [Warning] [MY-011810] [Server] Insecure configuration for --pid-file: Location '/var/run/mysqld' in the path is accessible to all OS users
. Consider choosing a different directory.
2024-12-17T16:10:11.556232Z 0 [System] [MY-011323] [Server] X Plugin ready for connections. Bind-address: '::' port: 33060, socket: /var/run/mysqld/mysqlx.sock
2024-12-17T16:10:11.556630Z 0 [System] [MY-010931] [Server] /usr/sbin/mysqld: ready for connections. Version: '8.4.3' socket: '/var/run/mysqld/mysqld.sock' port: 3306
MySQL Community Server - GPL.
2024-12-17T16:15:24.286124Z 0 [System] [MY-015015] [Server] MySQL Server - start.
2024-12-17T16:15:24.567294Z 0 [System] [MY-010116] [Server] /usr/sbin/mysqld (mysqld 8.4.3) starting as process 1
2024-12-17T16:15:24.888342Z 1 [System] [MY-013576] [InnoDB] InnoDB initialization has started.
2024-12-17T16:15:25.323576Z 1 [System] [MY-013577] [InnoDB] InnoDB initialization has ended.
2024-12-17T16:15:25.548153Z 0 [System] [MY-010229] [Server] Starting XA crash recovery...
2024-12-17T16:15:25.561597Z 0 [System] [MY-010232] [Server] XA crash recovery finished.
2024-12-17T16:15:25.654451Z 0 [Warning] [MY-010068] [Server] CA certificate ca.pem is self signed.
2024-12-17T16:15:25.654508Z 0 [System] [MY-013602] [Server] Channel mysql_main configured to support TLS. Encrypted connections are now supported for this channel.
2024-12-17T16:15:25.659110Z 0 [Warning] [MY-011810] [Server] Insecure configuration for --pid-file: Location '/var/run/mysqld' in the path is accessible to all OS users
. Consider choosing a different directory.
2024-12-17T16:15:25.687933Z 0 [System] [MY-011323] [Server] X Plugin ready for connections. Bind-address: '::' port: 33060, socket: /var/run/mysqld/mysqlx.sock
2024-12-17T16:15:25.688042Z 0 [System] [MY-010931] [Server] /usr/sbin/mysqld: ready for connections. Version: '8.4.3' socket: '/var/run/mysqld/mysqld.sock' port: 3306
MySQL Community Server - GPL.
```

Modo Interactivo Mysql

Entramos en el modo interactivo de mysql y despues con los siguientes comandos los vamos a ejecutar

```
(base) cmadalini@A23P169C:~$ docker exec -it contedor_mysql /bin/bash
bash-5.1# cd /employees_db/
bash-5.1# mysql -hlocalhost -uroot -pEewOysZWFzEsm3xbMTiomi+XzsjeE/EV
mysql: [Warning] Using a password on the command line interface can be insecure.
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 20
Server version: 8.4.3 MySQL Community Server - GPL

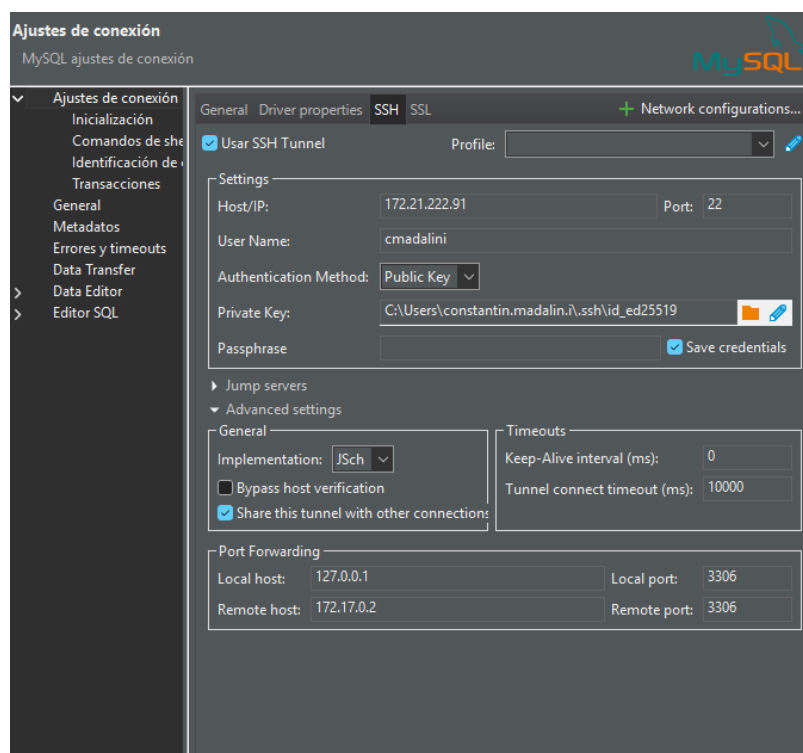
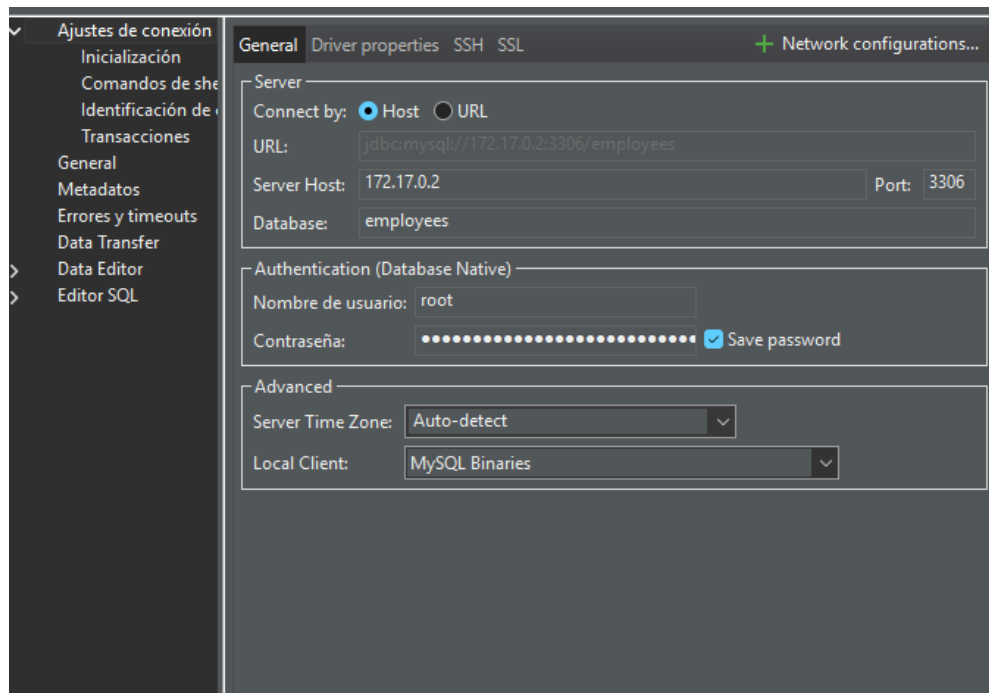
Copyright (c) 2000, 2024, Oracle and/or its affiliates.

Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.

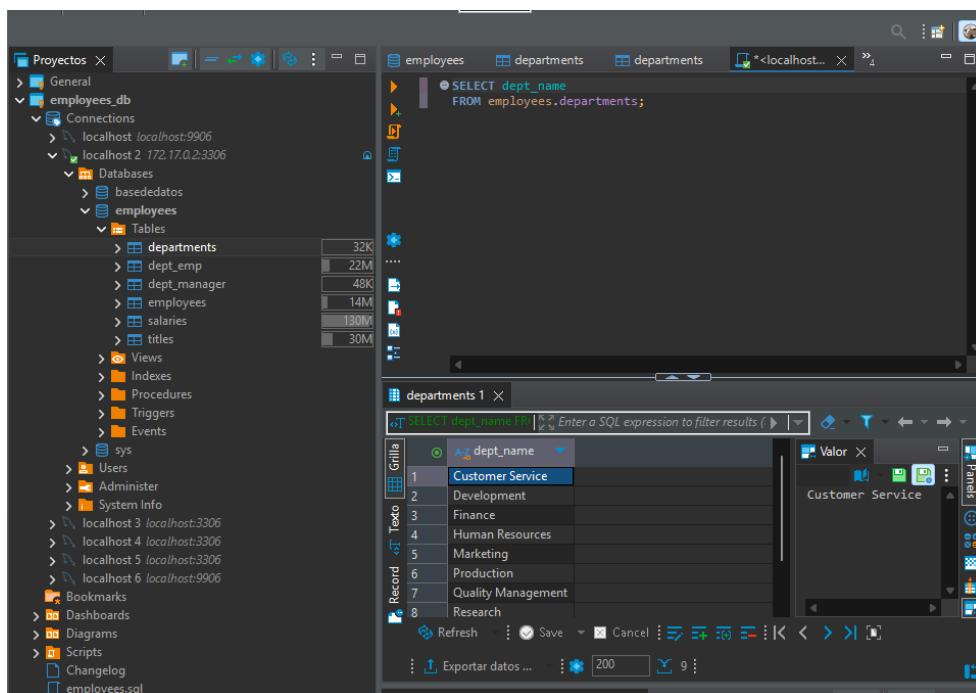
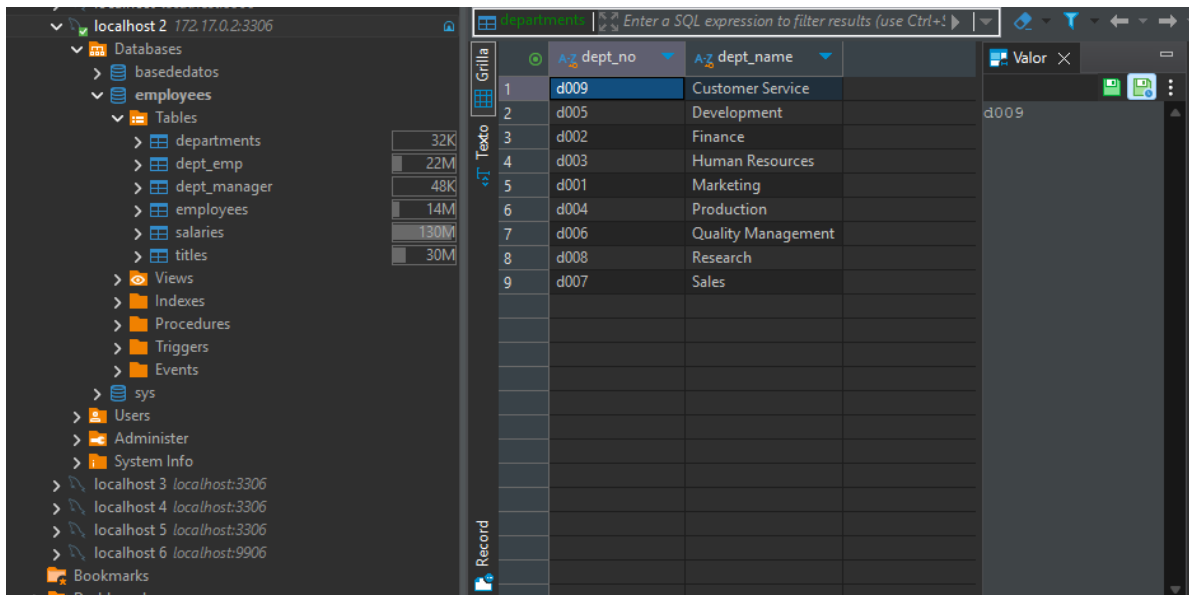
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> source employees.sql
```

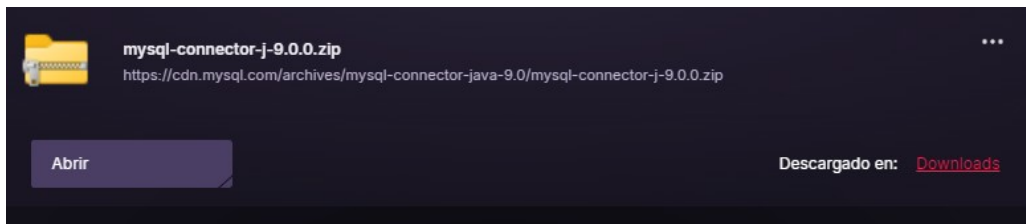
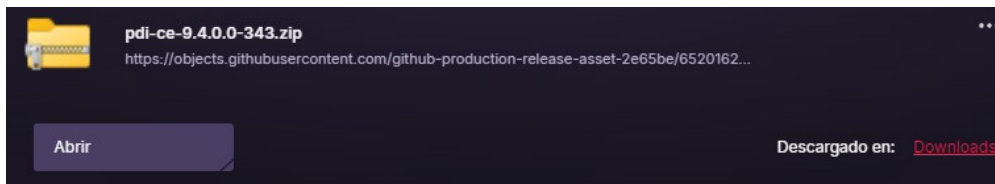
Ajustes de DBeaver



Consultas SQL



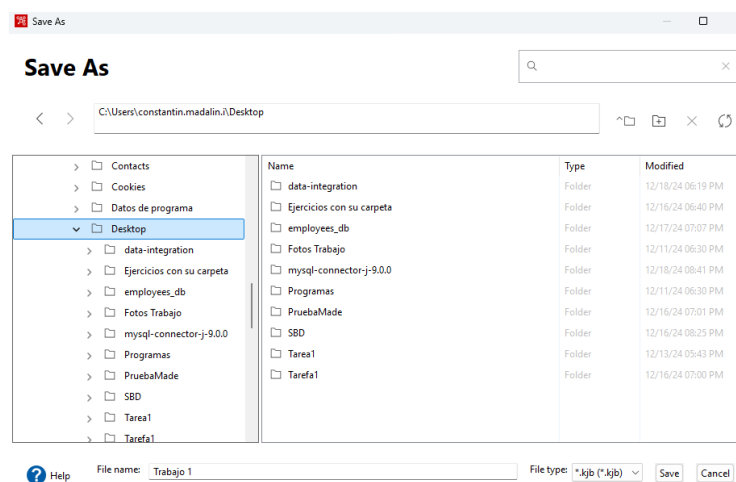
Instalacion de Pentaho

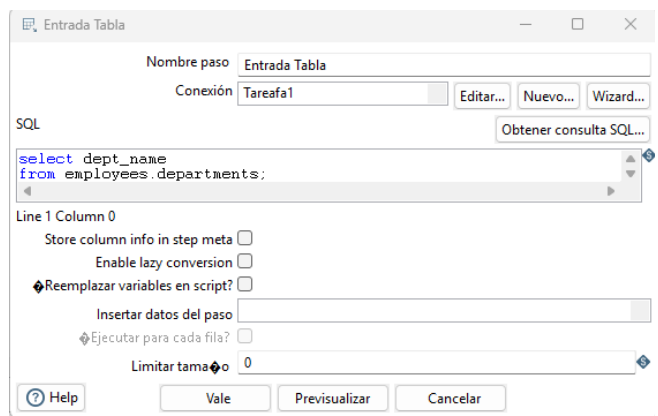
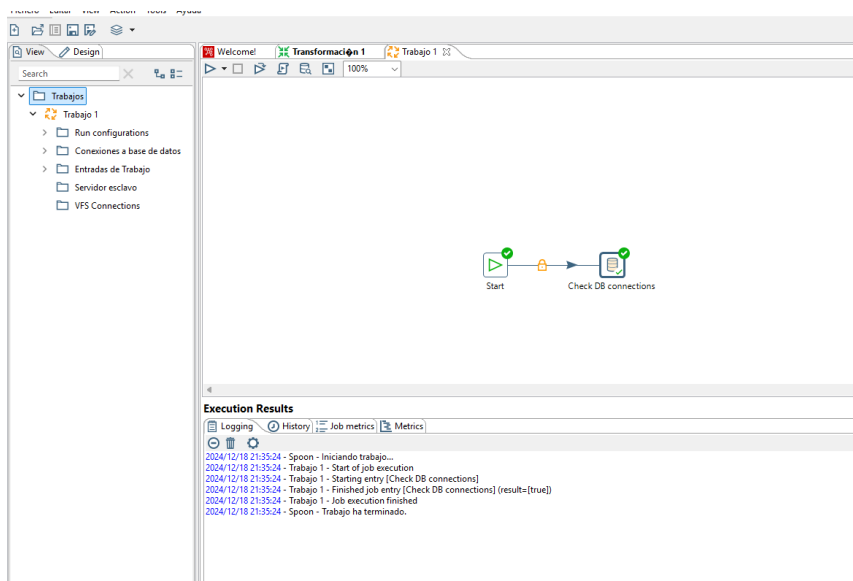


```
(bigdata) PS C:\Users\constantin.madalin.i> ssh cmadalini@172.21.222.91 -L 3306:172.17.0.2:3306
bind [127.0.0.1]:3306: Permission denied
Linux A23P169C 5.15.167.4-microsoft-standard-WSL2 #1 SMP Tue Nov 5 00:21:55 UTC 2024 x86_64

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
Last login: Wed Dec 18 21:15:23 2024 from 172.21.222.91
(base) cmadalini@A23P169C:~$ conda activate bigdata
(bigdata) cmadalini@A23P169C:~$ |
```





Examine preview data

Rows of step: Entrada Tabla (9 rows)

#	dept_name
1	Customer Service
2	Development
3	Finance
4	Human Resources
5	Marketing
6	Production
7	Quality Management
8	Research
9	Sales