Banco de dados

Atividade 05 : Como um programador de Banco de Dados, crie um Tutorial para instalar um Banco de Dados Mysql no PlaywithDocker. Crie um Docker file que cria uma imagem e em seguia cria um banco de dados chamado BD_ALUNOS com a senha de root kid_aluno e cria as tabelas TB_ALUNOS e TB_PROFESSORES.

Criação do diretório e arquivo docker

```
#################################################################
#                        WARNING!!!!                           #
# This is a sandbox environment. Using personal credentials    #
# is HIGHLY! discouraged. Any consequences of doing so are     #
# completely the user's responsibilites.                       #
#                                                               #
# The PWD team.                                                 #
#################################################################
[node1] (local) root@192.168.0.8 ~
$ mkdir mysql-docker
[node1] (local) root@192.168.0.8 ~
$ ^[[200~cd mysql-docker
bash: $'\E[200~cd': command not found
[node1] (local) root@192.168.0.8 ~
$ cd mysql-docker
[node1] (local) root@192.168.0.8 ~/mysql-docker
$ touch Dockerfile
[node1] (local) root@192.168.0.8 ~/mysql-docker
$ nano Dockerfile
bash: nano: command not found
[node1] (local) root@192.168.0.8 ~/mysql-docker
$ vi Dockerfile
[node1] (local) root@192.168.0.8 ~/mysql-docker
$ touch init.sql
[node1] (local) root@192.168.0.8 ~/mysql-docker
$ nano init.sql
bash: nano: command not found
[node1] (local) root@192.168.0.8 ~/mysql-docker
$ na init.sql
bash: na: command not found
[node1] (local) root@192.168.0.8 ~/mysql-docker
$
[node1] (local) root@192.168.0.8 ~/mysql-docker
$ vi init.sql
```

Criação das tabelas TB_ALUNOS & TB_PROFESSORES

```
 1  CREATE TABLE TB_ALUNOS (
 2      id INT AUTO_INCREMENT PRIMARY KEY,
 3      nome VARCHAR(100) NOT NULL,
 4      idade INT NOT NULL
 5  );
 6
 7  CREATE TABLE TB_PROFESSORES (
 8      id INT AUTO_INCREMENT PRIMARY KEY,
 9      nome VARCHAR(100) NOT NULL,
10      disciplina VARCHAR(100) NOT NULL
11  );
```

Criação da IMAGEM Docker

```
$ docker build -t mysql-alunos .
[+] Building 20.0s (7/7) FINISHED                                                    docker:default
 => [internal] load build definition from Dockerfile                                         0.0s
 => => transferring dockerfile: 173B                                                         0.0s
 => [internal] load metadata for docker.io/library/mysql:latest                             2.1s
 => [internal] load .dockerignore                                                            0.0s
 => => transferring context: 2B                                                              0.0s
 => [internal] load build context                                                           0.0s
 => => transferring context: 301B                                                            0.0s
 => [1/2] FROM docker.io/library/mysql:latest@sha256:0255b469f0135a0236d672d60e3154ae2f4538b146  17.7s
 => => resolve docker.io/library/mysql:latest@sha256:0255b469f0135a0236d672d60e3154ae2f4538b1467  0.0s
 => => sha256:56a8c14e14044b8ec7ffb4dd165c8dbe10d4c6ba3d9e754f0c906f52a0b5b4fb 6.52kB / 6.52kB    0.0s
 => => sha256:0255b469f0135a0236d672d60e3154ae2f4538b146744966d96440318cc822c6 2.62kB / 2.62kB    0.0s
 => => sha256:8689c5f93826d949b43a4b7613f9216499694a3082bdc372094a2910082aa391 2.86kB / 2.86kB    0.0s
 => => sha256:2c0a233485c3a7b6cab556a9a9c2916ca9a3afc8c46097ddfbe0af4fe120a50c 49.10MB / 49.10MB  0.8s
 => => sha256:cb5a6a8519b2b1d789b65fe763238531f3456522a13e5e8d6a644ccd9a95e527 885B / 885B        0.4s
 => => sha256:570d30cf82c5e8cd5bde2c25ddc2d5c25e9a38583f09f4411ffce694e16943 983.00kB / 983.00kB  0.5s
 => => sha256:a841bff36f3c6803a0ea0497a2f21ed75fcc7614e9f0fdaf1130861d2052f3f1 6.90MB / 6.90MB    0.9s
 => => sha256:80ba30c577823a1075c778315bd221b405236429f27ad62b3d359d59e55c640d 2.60kB / 2.60kB    0.8s
 => => sha256:5e49e1f26961569a4b36de1ed482bccbb9249ca5b29d0082222bb19d302cca30 340B / 340B        1.1s
 => => extracting sha256:2c0a233485c3a7b6cab556a9a9c2916ca9a3afc8c46097ddfbe0af4fe120a50c         2.9s
 => => sha256:ced670fc7f1c77db06886a4b52dc4051543eac07c0f58d481c62f0993e93e365 48.21MB / 48.21MB  1.6s
 => => sha256:0b9dc7ad7f03decfdeb7260a38115fa61c9d00a8bcaadc00fd9034290cbc8b7f 325B / 325B        1.2s
 => => sha256:cd0d5df9937b5e0d0634c76339346dfac141def2ee29367bf9858ea335714477 69.09MB / 69.09MB  2.0s
 => => sha256:1f87d67b89c62ad5e3961e9f730df83c0628049afd874dcfb0df2cd3e7dc5faf 5.32kB / 5.32kB    1.5s
 => => extracting sha256:cb5a6a8519b2b1d789b65fe763238531f3456522a13e5e8d6a644ccd9a95e527         0.0s
 => => extracting sha256:570d30cf82c5e8cd5bde2c25ddc2d5c25e9a38583f09f4411ffce694e1694355         0.0s
 => => extracting sha256:a841bff36f3c6803a0ea0497a2f21ed75fcc7614e9f0fdaf1130861d2052f3f1         0.4s
 => => extracting sha256:80ba30c577823a1075c778315bd221b405236429f27ad62b3d359d59e55c640d         0.0s
 => => extracting sha256:5e49e1f26961569a4b36de1ed482bccbb9249ca5b29d0082222bb19d302cca30         0.0s
 => => extracting sha256:ced670fc7f1c77db06886a4b52dc4051543eac07c0f58d481c62f0993e93e365         1.5s
 => => extracting sha256:0b9dc7ad7f03decfdeb7260a38115fa61c9d00a8bcaadc00fd9034290cbc8b7f         0.0s
 => => extracting sha256:cd0d5df9937b5e0d0634c76339346dfac141def2ee29367bf9858ea335714477        11.5s
```

Visualização das tabelas criadas

```
[node1] (local) root@192.168.0.8 ~/mysql-docker
$ docker run --name mysql-alunos -d -p 3306:3306 mysql-alunos
9f804dd47a506e5e9c90935ea4585fddb8b577aedd4415954df1ef72c251929b
[node1] (local) root@192.168.0.8 ~/mysql-docker
$ docker exec -it mysql-alunos mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 9.1.0 MySQL Community Server - GPL

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owners.

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

mysql> USE BD_ALUNOS;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
mysql> SHOW TABLES;
+--------------------+
| Tables_in_BD_ALUNOS |
+--------------------+
| TB_ALUNOS          |
| TB_PROFESSORES     |
+--------------------+
2 rows in set (0.00 sec)
```