Avaliação-07 de banco de dados
Avaliação realizada por Odílio Carneiro e Lara Yslen

1) A instalação do python


```
!apt-get -q -y install mysql-server
!pip install mysql-connector-python

reading /usr/share/mecab/dic/ipadic/Postp.csv ... 146
reading /usr/share/mecab/dic/ipadic/Verb.csv ... 130750
reading /usr/share/mecab/dic/ipadic/Adverb.csv ... 3032
reading /usr/share/mecab/dic/ipadic/Noun.demonst.csv ... 120
reading /usr/share/mecab/dic/ipadic/Symbol.csv ... 208
reading /usr/share/mecab/dic/ipadic/Others.csv ... 2
reading /usr/share/mecab/dic/ipadic/Noun.verbal.csv ... 12146
reading /usr/share/mecab/dic/ipadic/Adnominal.csv ... 135
reading /usr/share/mecab/dic/ipadic/Noun.place.csv ... 72999
reading /usr/share/mecab/dic/ipadic/Auxil.csv ... 199
reading /usr/share/mecab/dic/ipadic/Noun.adverbal.csv ... 795
reading /usr/share/mecab/dic/ipadic/Noun.others.csv ... 151
reading /usr/share/mecab/dic/ipadic/Noun.name.csv ... 34202
reading /usr/share/mecab/dic/ipadic/Interjection.csv ... 252
reading /usr/share/mecab/dic/ipadic/Suffix.csv ... 1393
reading /usr/share/mecab/dic/ipadic/Filler.csv ... 19
reading /usr/share/mecab/dic/ipadic/Conjunction.csv ... 171
emitting double-array: 100% |###########################################|
reading /usr/share/mecab/dic/ipadic/matrix.def ... 1316x1316
emitting matrix     : 100% |###########################################|

done!
update-alternatives: using /var/lib/mecab/dic/ipadic-utf8 to provide /var/lib/mecab/dic/debian (mecab-dictionary) in auto mode
Setting up libhtml-parser-perl:amd64 (3.76-1build2) ...
Setting up mysql-server (8.0.42-0ubuntu0.22.04.2) ...
Setting up libcgi-pm-perl (4.54-1) ...
Setting up libhtml-template-perl (2.97-1.1) ...
Setting up libcgi-fast-perl (1:2.15-1) ...
Processing triggers for man-db (2.10.2-1) ...
Processing triggers for libc-bin (2.35-0ubuntu3.8) ...
/sbin/ldconfig.real: /usr/local/lib/libtcm.so.1 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libur_adapter_level_zero_v2.so.0 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtbbmalloc.so.2 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtcm_debug.so.1 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtbbbind_2_0.so.3 is not a symbolic link
```

2)Criação do banco de dados e suas funções


```
[2] !service mysql start

 * Starting MySQL database server mysqld
su: warning: cannot change directory to /nonexistent: No such file or directory
   ...done.

%%writefile setup.sql
CREATE DATABASE IF NOT EXISTS empresa;
USE empresa;
CREATE TABLE IF NOT EXISTS funcionarios (
    id INT AUTO_INCREMENT PRIMARY KEY,
    nome VARCHAR(100),
    salario DECIMAL(10,2)
);
DROP FUNCTION IF EXISTS calcular_bonus;
DELIMITER //
CREATE FUNCTION calcular_bonus (sal DECIMAL(10,2)) RETURNS DECIMAL(10,2)
DETERMINISTIC
BEGIN
    RETURN sal * 0.10;
END //
DROP PROCEDURE IF EXISTS adicionar_funcionario;
CREATE PROCEDURE adicionar_funcionario (
    IN p_nome VARCHAR(100),
    IN p_salario DECIMAL(10,2)
)
BEGIN
    INSERT INTO funcionarios (nome, salario) VALUES (p_nome, p_salario);
END //
DELIMITER ;

Overwriting setup.sql

[6] !mysql -uroot < setup.sql

ERROR 1418 (HY000) at line 10: This function has none of DETERMINISTIC, NO SQL, or READS SQL DATA in its declaration and binary logging is enabled (you *might* want to use the less safe log_bin_trust_function_creators variable)
```

3) Importando o conector, implementando valores ao banco de

dados criado no passo 2 e exibindo os dados implementados.

```python
import mysql.connector

# Conecta ao MySQL rodando localmente no Colab
conn = mysql.connector.connect(
    host="127.0.0.1",
    user="root",
    password="your_password",  # Use the password you set
    database="empresa"
)
cursor = conn.cursor()

# Executar procedure para inserir dados
cursor.callproc('adicionar_funcionario', ['Ana Silva', 3500.00])
conn.commit()

# Recuperar dados usando função calcular_bonus
cursor.execute("SELECT nome, salario, calcular_bonus(salario) AS bonus FROM funcionarios")
for nome, salario, bonus in cursor.fetchall():
    print(f'Nome: {nome}, Salário: {salario}, Bônus: {bonus}')

cursor.close()
conn.close()
```

Nome: Ana Silva, Salário: 3500.00, Bônus: 350.00

```
[8] !mysql -uroot < setup.sql
```

```
[11] !mysql -uroot -e "USE mysql; ALTER USER 'root'@'localhost' IDENTIFIED WITH mysql_native_password BY 'your_password';"
     !mysql -uroot -p'your_password' -e "FLUSH PRIVILEGES;"
```

mysql: [Warning] Using a password on the command line interface can be insecure.