

Diana Cervantes

Lab 13

CS-3502 Database Theory 002

Create lab13_db:

```
CREATE SCHEMA lab13_db;
```

Create tables:

```
1 CREATE TABLE customer(  
2     employee_id INT UNSIGNED NOT NULL AUTO_INCREMENT,  
3     firstname VARCHAR(255),  
4     lastname VARCHAR(255),  
5     phone_number VARCHAR(15),  
6     PRIMARY KEY (employee_id)  
7 );  
8  
9 CREATE TABLE customer_audit(  
10     employee_audit_id INT UNSIGNED NOT NULL AUTO_INCREMENT,  
11     employee_id INT UNSIGNED,  
12     change_on TIMESTAMP DEFAULT CURRENT_TIMESTAMP,  
13     PRIMARY KEY (employee_audit_id),  
14     FOREIGN KEY (employee_id) REFERENCES customer(employee_id)  
15 );  
16
```

Create one admin user:

```
mysql> CREATE USER 'admin'@'localhost' IDENTIFIED BY 'secret';  
Query OK, 0 rows affected (0.01 sec)  
  
mysql> GRANT ALL PRIVILEGES ON lab13_db.* TO 'admin'@'localhost';  
Query OK, 0 rows affected (0.01 sec)  
  
mysql> FLUSH PRIVILEGES;  
Query OK, 0 rows affected (0.01 sec)  
  
mysql> |
```

Create one read user only read all the tables (Sally):

```
mysql> CREATE USER 'sally'@'localhost' IDENTIFIED BY 'secret';
Query OK, 0 rows affected (0.01 sec)

mysql> GRANT SELECT ON lab13_db.*TO'sally'@'localhost';
Query OK, 0 rows affected (0.01 sec)

mysql> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.00 sec)

mysql> |
```

Create one read/write user (Tom):

Should be GRANT SELECT,INSERT,UPDATE,DELETE

```
mysql> CREATE USER 'tom'@'localhost' IDENTIFIED BY 'secret';
Query OK, 0 rows affected (0.01 sec)

mysql> GRANT SELECT,INSERT ON lab13_db.*TO'tom'@'localhost';
Query OK, 0 rows affected (0.01 sec)

mysql> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.01 sec)
```

Admin Audit:

```
lab13.py
1 '''Python Program to Populate 10 customers'''
2 import os
3 import mysql.connector
4 # pip install python-dotenv or update the password field to your root password.
5 from dotenv import load_dotenv
6
7 load_dotenv()
8
9 # logging into MySQL Workbench as specified user
10 db = mysql.connector.connect(
11     host="localhost",
12     user="admin",
13     passwd=os.getenv('MYSQLWORKBENCH'),
14     database="lab13_db"
15 )
16 db = mysql.connector.connect
17 cursor = db.cursor() # Initiating cursor
18
19 '''mysql queries'''
```

Customer Audit Table Results

Employee_ID	First Name	Last Name	Change_On
10	Jackson	Ember	01 Dec 2023

What would you like to do?: 3
Enter the id: 9
Enter the customers new phone number: 222-222-3333

Customer Audit Table Results

Employee_ID	First Name	Last Name	Change_On
10	Jackson	Ember	01 Dec 2023
9	Scarlett	Ravenwood	01 Dec 2023

What would you like to do?: 2

Customer Table Results

Employee_ID	First Name	Last Name	Phone Number
1	Zephyr	Thunderstrike	802-472-8842
2	Isabella	Aldina	768-805-3863
3	Madison	Evergreen	338-343-8852
4	Sebastian	Frost	626-419-6695
5	Olivia	Sterling	375-792-6684
6	Xavier	Moonstone	506-698-6220
7	Isabella	Silverwood	897-709-3695
8	Elijah	Storm	595-637-9994
9	Scarlett	Ravenwood	222-222-3333
10	Jackson	Ember	111-222-3333

What would you like to do?:

lab13.py

PyLint(W0612unused-variable)

PyLint(C0301line-too-long) (1)

MySQL

Ln 40, Col 52 Spaces: 4 UTF-8 CRLF Python 3.11.1 64-bit Go Live Prettier

Sally Audit:

*Sally can read the files but cannot write to file.

```
lab13.py > -
1 '''Python Program to Populate 10 customers'''
2 import os
3 import mysql.connector
4 # pip install python-dotenv or update the password field to your root password.
5 from dotenv import load_dotenv
6
7 load_dotenv()
8
9 # Logging into MySQL Workbench as specified user
10 db = mysql.connector.connect(
11     host='localhost',
12     user='sally',
13     password=os.getenv('MYSQLWORKBENCH'),
14     database='lab13_db'
15 ) <- #18-15 db = mysql.connector.connect
16
17 cursor = db.cursor() # Initiating cursor
18
19 '''MySQL Queries'''
```

What would you like to do?: 4

Employee_ID	First Name	Last Name	Change_On
1	Zephyr	Thunderstrike	882-472-8842
2	Isabella	Aldina	768-895-3863
3	Madison	Evergreen	338-343-8852
4	Sebastian	Frost	626-419-6695
5	Olivia	Sterling	375-792-6684
6	Xavier	Moonstone	586-698-6228
7	Isabella	Silverwood	897-789-3695
8	Elijah	Storm	595-637-9994
9	Scarlett	Ravenwood	953-219-3113
10	Jackson	Ember	728-368-6688

What would you like to do?: 2

Employee_ID	First Name	Last Name	Phone Number
1	Zephyr	Thunderstrike	882-472-8842
2	Isabella	Aldina	768-895-3863
3	Madison	Evergreen	338-343-8852
4	Sebastian	Frost	626-419-6695
5	Olivia	Sterling	375-792-6684
6	Xavier	Moonstone	586-698-6228
7	Isabella	Silverwood	897-789-3695
8	Elijah	Storm	595-637-9994
9	Scarlett	Ravenwood	953-219-3113
10	Jackson	Ember	728-368-6688

What would you like to do?:

Tom Audit:

```
lab13.py 1 x .env
lab13.py
lab13.py
tempCodeRunnerFile.py

lab13.py
'''Python Program to Populate 10 customers'''
import os
import mysql.connector
# pip install python-dotenv or update the password field to your root password.
from dotenv import load_dotenv

load_dotenv()

# logging into MySQL Workbench as specified user
db = mysql.connector.connect(
    host="localhost",
    user="tom",
    password=os.getenv('MYSQLWORKBENCH'),
    database="lab13_db"
)
db = mysql.connector.connect
cursor = db.cursor() # Initiating cursor

'''MySQL QUERY'''

OUTPUT TERMINAL PORTS SQL CONSOLE DEBUG CONSOLE
Python Debug Console
D:\...\Lab13
-> d; cd 'd:\CodingProjects\Lab13'; & 'C:\Users\meha\AppData\Local\Programs\Python\Python311\python.exe' 'c:\Users\meha-.vscode\extensions\ms-python.python-2023.28.0\pythonFiles\lib\pyth
on\debugpy\adapter/.\.vscode\python\launcher' '49422' '-' 'd:\CodingProjects\Lab13\lab13.py'
##### Menu #####
Add a Customer: 0
Delete a Customer: 1
Query Customer table: 2
Update a Customer: 3
Query Audit Table: 4
Exit Program: 9

What would you like to do?: 2

Customer Table Results
Employee_ID First Name Last Name Phone Number
1 Zephyr Thunderstrike 882-472-8842
2 Isabella Aldina 768-805-3863
3 Madison Evergreen 338-343-8852
4 Sebastian Frost 626-419-6695
5 Olivia Sterling 375-792-6684
6 Xavier Moonstone 586-698-6220
7 Isabella Silverwood 897-709-3695
8 Elijah Storm 595-637-9994
9 Scarlett Ravenwood 953-219-3113
10 Jackson Ember 728-368-6680

What would you like to do?: 0
Enter a customer's first name: Diana
Enter a customer's last name: Cervante
Enter a customer's phone number (15 character max): 789-231-987
Does the info look correct, before committing to db? (Y/N): y
What would you like to do?: 2

Customer Table Results
Employee_ID First Name Last Name Phone Number
1 Zephyr Thunderstrike 882-472-8842
2 Isabella Aldina 768-805-3863
3 Madison Evergreen 338-343-8852
4 Sebastian Frost 626-419-6695
5 Olivia Sterling 375-792-6684
6 Xavier Moonstone 586-698-6220
7 Isabella Silverwood 897-709-3695
8 Elijah Storm 595-637-9994
9 Scarlett Ravenwood 953-219-3113
10 Jackson Ember 728-368-6680
11 Diana Cervante 789-231-987

What would you like to do?:
```