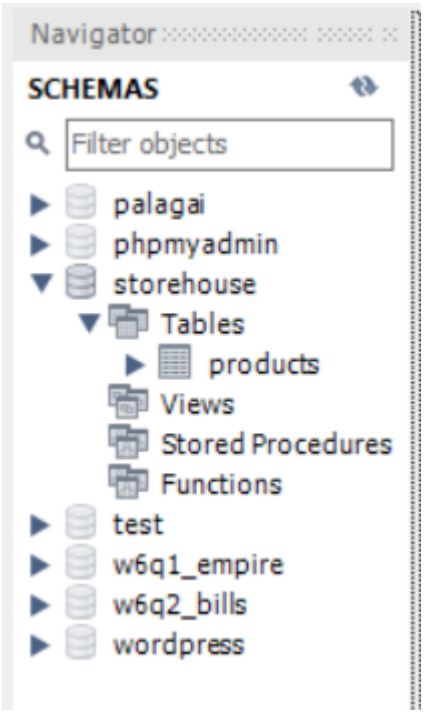
DBMS LAB – week 8

Python – MySQL

Create Database::

```
import mysql.connector as mysql_client

db = mysql_client.connect(
    host="localhost",
    user="root",
    passwd=""
)
# print(db)

query = "CREATE DATABASE IF NOT EXISTS storehouse"
cmd = db.cursor()
cmd.execute(query)
```



Create Table::

```
import mysql.connector as mysql_client

db = mysql_client.connect(
    host="localhost",
    user="root",
    passwd="",
    database="storehouse"
)
# print(db)
```

```
query = "CREATE TABLE IF NOT EXISTS products (" \
        "prod_id INT PRIMARY KEY," \
        "prod_name VARCHAR(255) NOT NULL," \
        "category VARCHAR(50) NOT NULL," \
        "quantity INT DEFAULT 0," \
        "price FLOAT NOT NULL," \
        "discount FLOAT DEFAULT 0," \
        "date_of_manufacture DATE NOT NULL," \
        "date_of_expiry DATE NOT NULL)"
cmd = db.cursor()
cmd.execute(query)
```

(After inserting few values)

prod_id	prod_name	category	quantity	price	discount	date_of_manufacture	date_of_expiry
1	namae	properNoun	4	1444	0.14	2020-02-02	2020-02-03
2	namae	properNoun	4	144	0.14	2020-02-04	2020-02-05
3	honey	food	40	360	0.1	2020-06-06	2030-06-06
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Insert::

```
import mysql.connector as mysql_client

db = mysql_client.connect(
    host="localhost",
    user="root",
    passwd="",
    database="storehouse"
)
# print(db)
# 2 namae properNoun 4 1444.0 .14 2020-02-04 2020-02-05
# 3 honey food 40 300.00 .10 2020-06-06 2030-06-06

query = "INSERT INTO products VALUES (%s, %s, %s, %s, %s, %s, %s, %s);"
value = (input("Enter prod_id, name, category, quantity, price, discount,
dom, doe in order with spaces::\n").split())
cmd = db.cursor()
cmd.execute(query, value)

db.commit()
print(cmd.rowcount, "rows inserted")
# print(query % value)
```

```
Run:  Insert
"C:\Laptop\porutkaL\Sems\sem5\CSPC52 - DBMS\CSLR51 - DBMS Lab\Week 8\venv\Scripts\python.exe"
Enter prod_id, name, category, quantity, price, discount, dom, doe in order with spaces::
4 chalk writingTool 50 30.00 .16 2020-06-06 2040-06-06
1 rows inserted

Process finished with exit code 0
```

Find::

```
import mysql.connector as mysql_client

db = mysql_client.connect(
    host="localhost",
    user="root",
    passwd="",
    database="storehouse"
)
# print(db)
# 1 namae properNoun 4 1444.0 .14 2020-02-02 2020-02-03

query = "SELECT * FROM products WHERE `prod_name` = '%s'"
value = (input("Enter name of the product::\n"))
cmd = db.cursor()
cmd.execute(query % value)

records = cmd.fetchall()
for record in records:
    print(record)
print(cmd.rowcount, "rows hit")
# print((query % value == "SELECT * FROM products WHERE `prod_name` =
'namae'"))
```

Seach_in_category::

```
import mysql.connector as mysql_client

db = mysql_client.connect(
    host="localhost",
    user="root",
    passwd="",
    database="storehouse"
)
# print(db)
# 1 namae properNoun 4 1444.0 .14 2020-02-02 2020-02-03

query = "SELECT * FROM products WHERE `category` = '%s'"
value = (input("Enter category of the product(s)::\n"))
cmd = db.cursor()
cmd.execute(query % value)

records = cmd.fetchall()
for record in records:
    print(record)
print(cmd.rowcount, "rows hit")
```

```
# print((query % value == "SELECT * FROM products WHERE `prod_name` =
'namae'"))
```

```
Run:  Search_in_category
"C:\Laptop\porutkaL\Sems\sem5\CSPC52 - DBMS\CSLR51 - DBMS Lab\Week 8\venv\Scripts\python.exe" "C:/
Enter category of the product(s)::
writingTool
(4, 'chalk', 'writingTool', 50, 30.0, 0.16, datetime.date(2020, 6, 6), datetime.date(2040, 6, 6))
1 rows hit

Process finished with exit code 0
```

Update::

```
import mysql.connector as mysql_client

db = mysql_client.connect(
    host="localhost",
    user="root",
    passwd="",
    database="storehouse"
)
# print(db)
# 1 namae properNoun 4 1444.0 .14 2020-02-02 2020-02-03

query = "UPDATE `products` SET `price` = %s WHERE `prod_id` = %s"
value = (input("Enter the ID, new_price of the product::\n").split())
cmd = db.cursor()
cmd.execute(query % (float(value[1]), int(value[0])))

db.commit()

cmd.execute("SELECT * FROM products")
records = cmd.fetchall()
for record in records:
    print(record)
print(cmd.rowcount, "rows hit")
# print((query % value == "SELECT * FROM products WHERE `prod_name` =
'namae'"))
```

```
Run:  update
"C:\Laptop\porutkaL\Sems\sem5\CSPC52 - DBMS\CSLR51 - DBMS Lab\Week 8\venv\Scripts\python.exe" "C:/
Enter the ID, new_price of the product::
4 35
(1, 'namae', 'properNoun', 4, 1444.0, 0.14, datetime.date(2020, 2, 2), datetime.date(2020, 2, 3))
(2, 'namae', 'properNoun', 4, 144.0, 0.14, datetime.date(2020, 2, 4), datetime.date(2020, 2, 5))
(3, 'honey', 'food', 40, 360.0, 0.1, datetime.date(2020, 6, 6), datetime.date(2030, 6, 6))
(4, 'chalk', 'writingTool', 50, 35.0, 0.16, datetime.date(2020, 6, 6), datetime.date(2040, 6, 6))
4 rows hit

Process finished with exit code 0
```

Provide_Discount::

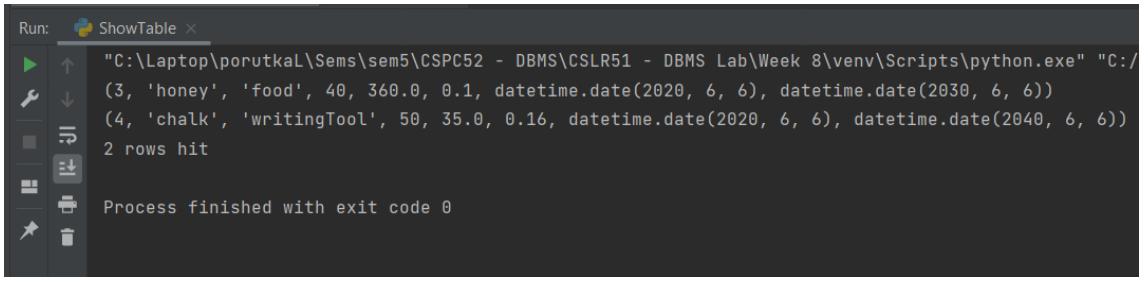
```
import mysql.connector as mysql_client

db = mysql_client.connect(
    host="localhost",
    user="root",
    passwd="",
    database="storehouse"
)
# print(db)
# 1 namae properNoun 4 1444.0 .14 2020-02-02 2020-02-03

query = "SELECT discount FROM products WHERE `category` = '%s'"
value = (input("Enter category of the product(s)::\n"))
cmd = db.cursor()
cmd.execute(query % value)

records = cmd.fetchall()
for record in records:
    print(record)
print(cmd.rowcount, "rows hit")
# print((query % value == "SELECT * FROM products WHERE `prod_name` =
'namae'"))
```

Delete::

```
import mysql.connector as mysql_client
from datetime import date

db = mysql_client.connect(
    host="localhost",
    user="root",
    passwd="",
    database="storehouse"
)
# print(db)
# 1 namae properNoun 4 1444.0 .14 2020-02-02 2020-02-03

query = "DELETE FROM products WHERE `date_of_expiry` < '%s'"
# value = (input("Enter DoE of the product::\n"))
cmd = db.cursor()
query_ = "SELECT * FROM products"
cmd.execute(query % date.today().strftime("%Y-%m-%d"))  #
date.today().strftime("%Y-%m-%d"))

db.commit()
```

```
cmd.execute(query_)
records = cmd.fetchall()
for record in records:
    print(record)
print(cmd.rowcount, "rows hit")
# print((query % value == "SELECT * FROM products WHERE `prod_name` =
'namae'"))
```

(Displaying Table)



Notification_Free Shipping::

```
import mysql.connector as mysql_client

db = mysql_client.connect(
    host="localhost",
    user="root",
    passwd="",
    database="storehouse"
)
# print(db)
# 1 namae properNoun 4 1444.0 .14 2020-02-02 2020-02-03

query = "SELECT price, discount FROM products"
# value = (input("Enter category of the product(s)::\n"))
cmd = db.cursor()
cmd.execute(query)

records = cmd.fetchall()
for record in records:
    print("Free shipping" if record[0]*(1-record[1]) > 1000.00 else
"Shipping charges not included")
    # print(record[0] * (1 - record[1]))
print(cmd.rowcount, "rows hit")
# print((query % value == "SELECT * FROM products WHERE `prod_name` =
'namae'"))
cmd.close()
db.close()
```

(After some Table rows are deleted)