Assignment: Module 10.1 Assignment

Assignment: Milestone #2

5/5/2024

Bacchus_Milestone_2

Group 2

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Code:

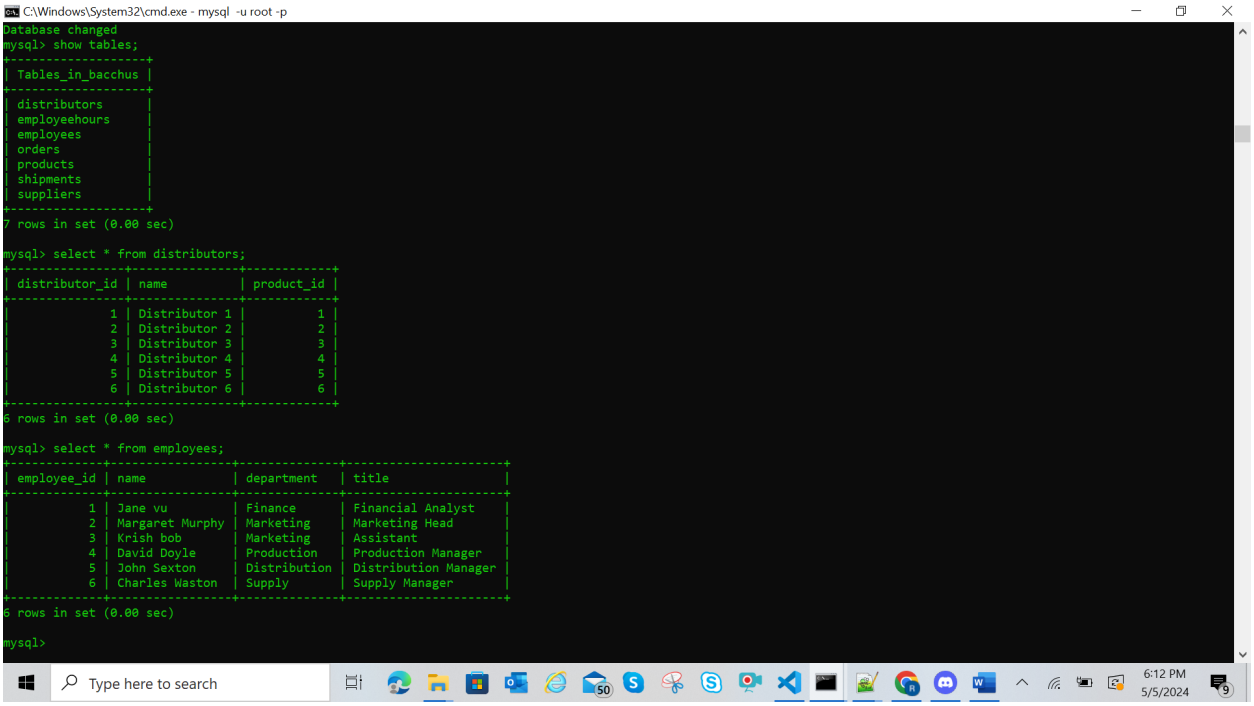
```
import mysql.connector
from mysql.connector import errorcode

# Connect to MySQL database
try:
    # Establish database connection
    db = mysql.connector.connect(
        user="root",
        password="popcorn",
        host="127.0.0.1",
        database="bacchus",
        raise_on_warnings=True
    )
    print("\nDatabase user {} connected to MySQL on host {} with database
{}".format("root", "127.0.0.1", "movies"))
    input("\nPress any key to continue...")
    cursor = db.cursor()

    # Define table creation queries
    create_tables_query = [
        """
        CREATE TABLE Employees (
            employee_id INT AUTO_INCREMENT PRIMARY KEY,
            name VARCHAR(255),
            department VARCHAR(255),
            title VARCHAR(255)
        )
        """,
```

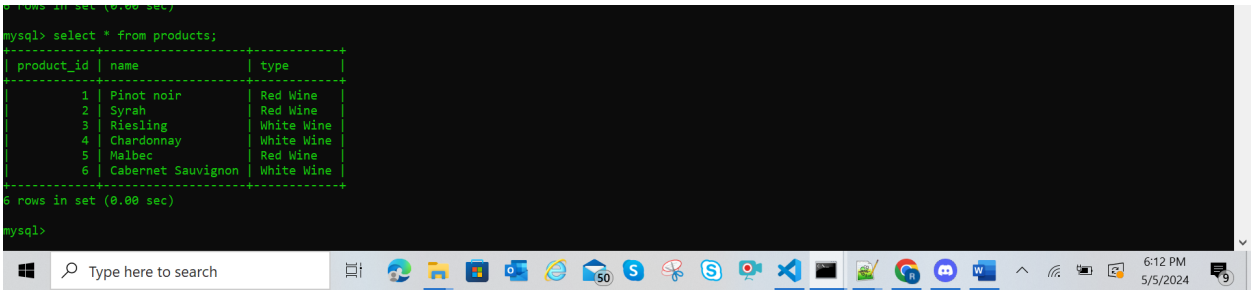
```
        """
        CREATE TABLE Suppliers (
            supplier_id INT AUTO_INCREMENT PRIMARY KEY,
            name VARCHAR(255),
            product_type VARCHAR(255),
            delivery_frequency VARCHAR(255)
        )
        """,
        """
        CREATE TABLE Products (
            product_id INT AUTO_INCREMENT PRIMARY KEY,
            name VARCHAR(255),
            type VARCHAR(255)
        )
        """,
        """
        CREATE TABLE Orders (
            order_id INT AUTO_INCREMENT PRIMARY KEY,
            product_id INT,
            supplier_id INT,
            quantity INT,
            order_date DATE,
            FOREIGN KEY (product_id) REFERENCES Products(product_id),
            FOREIGN KEY (supplier_id) REFERENCES Suppliers(supplier_id)
        )
        """,
        """
        CREATE TABLE Shipments (
            shipment_id INT AUTO_INCREMENT PRIMARY KEY,
            supplier_id INT,
            expected_delivery DATE,
            actual_delivery DATE,
            FOREIGN KEY (supplier_id) REFERENCES Suppliers(supplier_id)
        )
        """,
        """
        CREATE TABLE Distributors (
            distributor_id INT AUTO_INCREMENT PRIMARY KEY,
            name VARCHAR(255),
            product_id INT,
            FOREIGN KEY (product_id) REFERENCES Products(product_id)
        )
        """,
        """
        CREATE TABLE EmployeeHours (
```

```
            employee_id INT,
            quarter INT,
            hours_worked INT,
            FOREIGN KEY (employee_id) REFERENCES Employees(employee_id)
        )
        """
    ]

    # Execute table creation queries
    for query in create_tables_query:
        cursor.execute(query)
    db.commit()

    # Populate tables with sample data
    # Insert statements for each table

    # Display data in each table
    # Select statements for each table

# Define insert statements for each table
    employees_data = [
        ("Jane vu", "Finance", "Financial Analyst"),
        ("Margaret Murphy", "Marketing", "Marketing Head"),
        ("Krish bob", "Marketing", "Assistant"),
        ("David Doyle", "Production", "Production Manager"),
        ("John Sexton", "Distribution", "Distribution Manager"),
        ("Charles Waston", "Supply", "Supply Manager")
    ]
    suppliers_data = [
        ("Supplier A", "Blue and Red", "Monthly"),
        ("Supplier B", "Sky and Moon", "Monthly"),
        ("Supplier C", "Yellow and Boxes", "Monthly")
    ]
    products_data = [
        ("Pinot noir", "Red Wine"),
        ("Syrah", "Red Wine"),
        ("Riesling", "White Wine"),
        ("Chardonnay", "White Wine")
    ]
    distributors_data = [
        ("Distributor 1", 1),  # Distributor 1 carries Pinot noir
        ("Distributor 2", 2),  # Distributor 2 carries Syrah
        ("Distributor 3", 3),  # Distributor 3 carries Riesling
        ("Distributor 4", 4)   # Distributor 4 carries Chardonnay
    ]
```

```
    # Execute insert statements for each table
    cursor.executemany("INSERT INTO Employees (name, department, title)
VALUES (%s, %s, %s)", employees_data)
    cursor.executemany("INSERT INTO Suppliers (name, product_type,
delivery_frequency) VALUES (%s, %s, %s)", suppliers_data)
    cursor.executemany("INSERT INTO Products (name, type) VALUES (%s,
%s)", products_data)
    cursor.executemany("INSERT INTO Distributors (name, product_id) VALUES
(%s, %s)", distributors_data)


    # Commit changes to the database
    db.commit()


except mysql.connector.Error as err:
    if err.errno == errorcode.ER_ACCESS_DENIED_ERROR:
        print("Error: Access denied. Please check your username and
password.")
    elif err.errno == errorcode.ER_BAD_DB_ERROR:
        print("Error: Database does not exist.")
    else:
        print(err)

finally:
    if 'db' in locals() and db.is_connected():
        cursor.close()
        db.close()
```

Output:


C:\Windows\System32\cmd.exe - mysql -u root -p
Database changed
mysql> show tables;
+-------------------+
| Tables_in_bacchus |
+-------------------+
| distributors |
| employeehours |
| employees |
| orders |
| products |
| shipments |
| suppliers |
+-------------------+
7 rows in set (0.00 sec)
mysql> select * from distributors;
+----------------+---------------+------------+
| distributor_id | name | product_id |
+----------------+---------------+------------+
1	Distributor 1	1
2	Distributor 2	2
3	Distributor 3	3
4	Distributor 4	4
5	Distributor 5	5
6	Distributor 6	6
+----------------+---------------+------------+
6 rows in set (0.00 sec)
mysql> select * from employees;
+-------------+----------------+-------------+----------------------+
| employee_id | name | department | title |
+-------------+----------------+-------------+----------------------+
1	Jane vu	Finance	Financial Analyst
2	Margaret Murphy	Marketing	Marketing Head
3	Krish bob	Marketing	Assistant
4	David Doyle	Production	Production Manager
5	John Sexton	Distribution	Distribution Manager
6	Charles Waston	Supply	Supply Manager
+-------------+----------------+-------------+----------------------+
6 rows in set (0.00 sec)
mysql>
Type here to search
6:12 PM
5/5/2024


mysql> select * from products;
+------------+--------------------+------------+
| product_id | name | type |
+------------+--------------------+------------+
1	Pinot noir	Red Wine
2	Syrah	Red Wine
3	Riesling	White Wine
4	Chardonnay	White Wine
5	Malbec	Red Wine
6	Cabernet Sauvignon	White Wine
+------------+--------------------+------------+
6 rows in set (0.00 sec)
mysql>
Type here to search
6:12 PM
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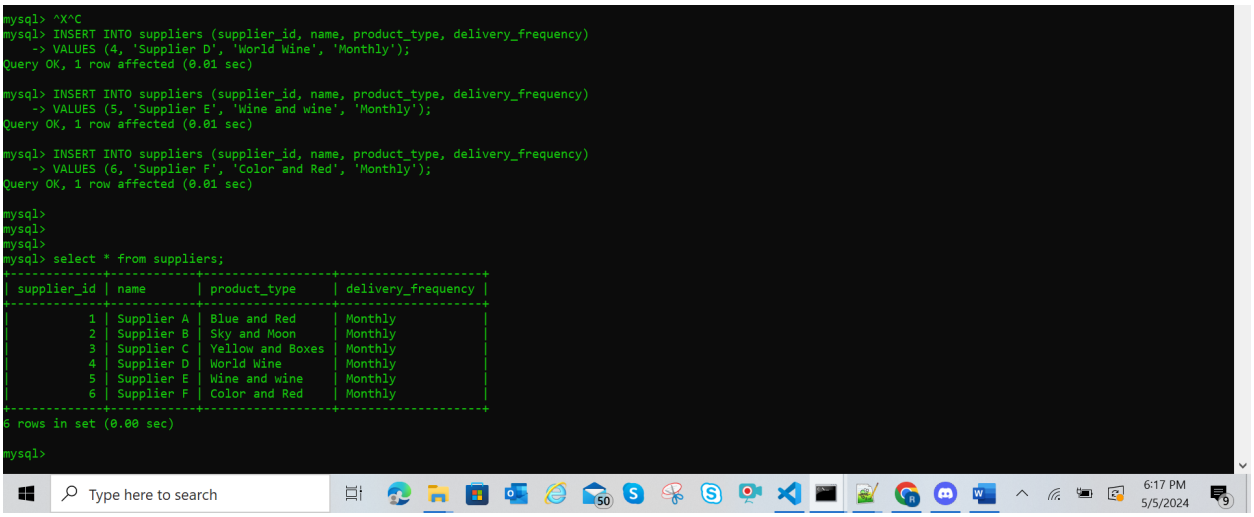
mysql> ^X^C
mysql> INSERT INTO suppliers (supplier_id, name, product_type, delivery_frequency)
-> VALUES (4, 'Supplier D', 'World Wine', 'Monthly');
Query OK, 1 row affected (0.01 sec)
mysql> INSERT INTO suppliers (supplier_id, name, product_type, delivery_frequency)
-> VALUES (5, 'Supplier E', 'Wine and wine', 'Monthly');
Query OK, 1 row affected (0.01 sec)
mysql> INSERT INTO suppliers (supplier_id, name, product_type, delivery_frequency)
-> VALUES (6, 'Supplier F', 'Color and Red', 'Monthly');
Query OK, 1 row affected (0.01 sec)
mysql>
mysql>
mysql>
mysql> select * from suppliers;
+-------------+------------+------------------+--------------------+
| supplier_id | name | product_type | delivery_frequency |
+-------------+------------+------------------+--------------------+
1	Supplier A	Blue and Red	Monthly
2	Supplier B	Sky and Moon	Monthly
3	Supplier C	Yellow and Boxes	Monthly
4	Supplier D	World Wine	Monthly
5	Supplier E	Wine and wine	Monthly
6	Supplier F	Color and Red	Monthly
+-------------+------------+------------------+--------------------+
6 rows in set (0.00 sec)
mysql>
Type here to search
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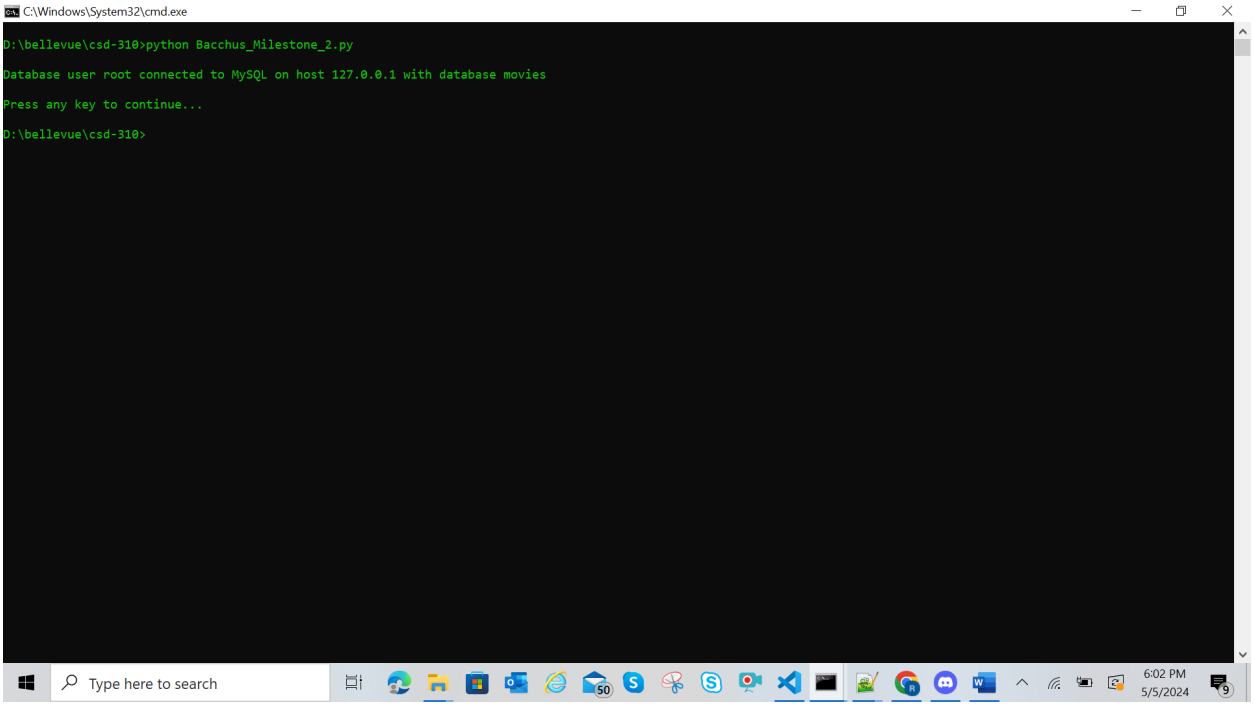
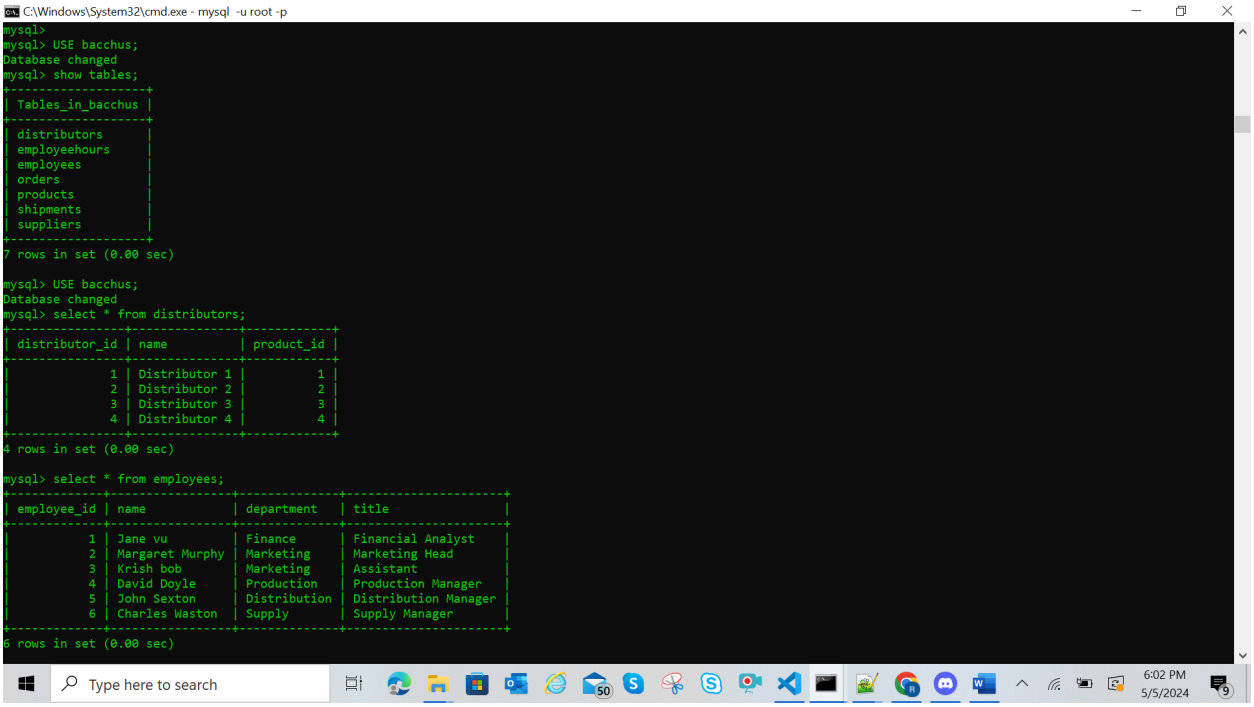

C:\Windows\System32\cmd.exe
D:\bellevue\csd-310>python Bacchus_Milestone_2.py
Database user root connected to MySQL on host 127.0.0.1 with database movies
Press any key to continue...
D:\bellevue\csd-310>
Type here to search
6:02 PM
5/5/2024


C:\Windows\System32\cmd.exe - mysql -u root -p
mysql>
mysql> USE bacchus;
Database changed
mysql> show tables;
+-------------------+
| Tables_in_bacchus |
+-------------------+
| distributors |
| employeehours |
| employees |
| orders |
| products |
| shipments |
| suppliers |
+-------------------+
7 rows in set (0.00 sec)
mysql> USE bacchus;
Database changed
mysql> select * from distributors;
+----------------+--------------+------------+
| distributor_id | name | product_id |
+----------------+--------------+------------+
1	Distributor 1	1
2	Distributor 2	2
3	Distributor 3	3
4	Distributor 4	4
+----------------+--------------+------------+
4 rows in set (0.00 sec)
mysql> select * from employees;
+-------------+----------------+-------------+---------------------+
| employee_id | name | department | title |
+-------------+----------------+-------------+---------------------+
1	Jane vu	Finance	Financial Analyst
2	Margaret Murphy	Marketing	Marketing Head
3	Krish bob	Marketing	Assistant
4	David Doyle	Production	Production Manager
5	John Sexton	Distribution	Distribution Manager
6	Charles Waston	Supply	Supply Manager
+-------------+----------------+-------------+---------------------+
6 rows in set (0.00 sec)
Type here to search
6:02 PM
5/5/2024