

5. Write a query to insert values in a specific table of your choice in which one of the column has unique constraints and if one tries to insert data which is duplicate based on the column having unique constraint then the value gets updated

```
mysql> create table books (Book_id int primary key,  
                           Book_name varchar(45) not null UNIQUE,  
                           Price int,  
                           Quantity int);
```

| | Book_id | Book_name | Price | Quantity |
|---|---------|------------------|-------|----------|
| ▶ | 101 | Tiny Habits | 125 | 74 |
| | 102 | Friendly JAVA | 195 | 86 |
| | 103 | Thinking in JAVA | 250 | 100 |
| | 104 | Effective JAVA | 325 | 139 |
| | 106 | CORE JAVA | 256 | 50 |
| | 107 | Head First JAVA | 300 | 60 |
| * | NULL | NULL | NULL | NULL |

```
mysql> insert into school.books(Book_id,Book_name,Price,Quantity)  
Values (108,'Head First JAVA',400,85)  
ON duplicate key update Book_name = 'Java: A Beginner's Guide';
```

| | Book_id | Book_name | Price | Quantity |
|---|---------|--------------------------|-------|----------|
| ▶ | 101 | Tiny Habits | 125 | 74 |
| | 102 | Friendly JAVA | 195 | 86 |
| | 103 | Thinking in JAVA | 250 | 100 |
| | 104 | Effective JAVA | 325 | 139 |
| | 106 | CORE JAVA | 256 | 50 |
| | 107 | Java: A Beginner's Guide | 300 | 60 |
| | 108 | Head First JAVA | 400 | 85 |
| * | NULL | NULL | NULL | NULL |

7. DEADLOCK

Created two users “user1” and “user2” for a database “school”

```
mysql> create table books (Book_id int primary key, Book_name varchar(45), Price  
int,Quantity int);
```

```
mysql>begin;
```

```
mysql>set autocommit = off;
```

- **Mysql -u user1 -p**

```
mysql> update books set Price = Price+5 where Book_id = 101;  
Query OK, 1 row affected (0.05 sec)
```

Rows matched:1 Changed: 1 Warnings:0

- **Mysql -u user2 -p**

mysql> update books set Quantity = Quantity+10 where Book_id = 102;

Query OK, 1 row affected (0.05 sec)

Rows matched:1 Changed: 1 Warnings:0

- **Mysql -u user2 -p**

mysql> update books set Quantity=Quantity+10 where Book_id=101;

Query OK, 1 row affected (16.33 sec)

Rows matched: 1 Changed: 1 Warnings: 0

- **Mysql -u user1 -p**

mysql> update books set Price=Price+5 where Book_id=102;

ERROR 1213 (40001): Deadlock found when trying to get lock; try restarting transaction

```
Command Prompt - mysql -u user1 -p
mysql> use school;
Database changed
mysql> begin;
Query OK, 0 rows affected (0.00 sec)

mysql> set autocommit = off;
Query OK, 0 rows affected (0.00 sec)

mysql> select * from books;
+-----+-----+-----+-----+
| Book_id | Book_name      | Price | Quantity |
+-----+-----+-----+-----+
| 101     | Tiny Habits    | 125   | 74        |
| 102     | Head First JAVA| 195   | 86        |
| 103     | Thinking in JAVA| 250   | 100       |
| 104     | Effective JAVA | 325   | 139       |
+-----+-----+-----+-----+
4 rows in set (0.04 sec)

mysql> update books set Price = Price + 5 where Book_id = 101;
Query OK, 1 row affected (0.05 sec)
Rows matched: 1 Changed: 1 Warnings: 0

mysql> update books set Price = Price + 5 where Book_id = 102;
ERROR 1213 (40001): Deadlock found when trying to get lock; try restarting transaction
mysql>
```

```
Command Prompt - mysql -u user2 -p
mysql> use school;
Database changed
mysql> begin;
Query OK, 0 rows affected (0.00 sec)

mysql> set autocommit = off;
Query OK, 0 rows affected (0.00 sec)

mysql> select * from books;
+-----+-----+-----+-----+
| Book_id | Book_name      | Price | Quantity |
+-----+-----+-----+-----+
| 101     | Tiny Habits    | 125   | 74        |
| 102     | Head First JAVA| 195   | 86        |
| 103     | Thinking in JAVA| 250   | 100       |
| 104     | Effective JAVA | 325   | 139       |
+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> update books set Quantity=Quantity+10 where Book_id=102;
ERROR 1054 (42S22): Unknown column 'Quantity' in 'field list'
mysql> update books set Quantity=Quantity+10 where Book_id=102;
Query OK, 1 row affected (0.03 sec)
Rows matched: 1 Changed: 1 Warnings: 0

mysql> update books set Quantity=Quantity+10 where Book_id=101;
Query OK, 1 row affected (6.93 sec)
Rows matched: 1 Changed: 1 Warnings: 0

mysql>
```

Windows taskbar at the bottom shows the search bar, task view button, and system tray with temperature (34°C), time (12:40 PM), and date (10/19/2021).