

1. Once upon a time, in a small town called SQLville, there was a renowned bookstore named "Books & Bytes." The store had a vast collection of books, ranging from classic literature to modern technology.

As part of their college curriculum, the students of SQLville University were tasked with learning the basics of MySQL and database management. To make the learning experience more interactive and practical, the bookstore decided to collaborate with the university and create a hands-on assignment for the students.

Assignment:

You are a student studying computer science at SQLville University, and you have recently started your journey into the world of databases and SQL. The assignment given to you by "Books & Bytes" is as follows:

Create a database named "BooksDB" to store information about the bookstore's collection of books.

Design a table called "Books" to store the details of each book, including the book's title, author, genre, publication year, and price.

Insert at least five books into the "Books" table, ensuring that each book has unique information for all columns.

Write SQL queries to perform the following tasks:

- a. Retrieve all the books from the database.
- b. Retrieve the details of a book based on its title.
- c. Update the price of a book.
- d. Delete a book from the database based on its title.

## A. Retrieve all the books from the database.

CREATE DATABASE BookDB;

USE BookDB;

CREATE TABLE Books( ID INT PRIMARY KEY, TITLE VARCHAR(100), AUTHOR VARCHAR(30), GENRE VARCHAR(30), YEAR\_PUBLICATION INT(10), PRICE INT(5));

INSERT INTO Books VALUES(1, "ANIMATED CARTOONS", "E.G.LUTZ", "DRAWING", 2008, 299);

INSERT INTO Books VALUES(2, "FINGER DRAWING", "ANDREW LOOMIS", "DRAWING", 2012, 399);

INSERT INTO Books VALUES(3, "THE SECRET", "RHONDA BYRNE", "PSYCHOLOGY", 2008, 500);

INSERT INTO Books VALUES(4, "INNER ENGINEERING", "SADHGURU", "PSYCHOLOGY", 2016, 450);

INSERT INTO Books VALUES(5, "THE MOTIVATION MYTH", "JEFF HADEN", "MOTIVATION", 2018, 250);

SELECT \* FROM Books;

The screenshot displays the MySQL Workbench interface. The top toolbar includes icons for File, Edit, View, Query, Database, Server, Tools, Scripting, and Help. The main editor window shows a script with the following SQL statements:

```
1 CREATE DATABASE BookDB;
2 USE BookDB;
3 CREATE TABLE Books( ID INT PRIMARY KEY, TITLE VARCHAR(100), AUTHOR VARCHAR(30), GENRE VARCHAR(30), YEAR_PUBLICATION INT(10), PRICE INT(5));
4 INSERT INTO Books VALUES(1, "ANIMATED CARTOONS", "E.G.LUTZ", "DRAWING", "2008", 299);
5 INSERT INTO Books VALUES(2, "FINGER DRAWING", "ANDREW LOOMIS", "DRAWING", "2012", 399);
6 INSERT INTO Books VALUES(3, "THE SECRET", "RHONDA BYRNE", "PSYCHOLOGY", 2008, 500);
7 INSERT INTO Books VALUES(4, "INNER ENGINEERING", "SADHGURU", "PSYCHOLOGY", 2016, 450);
8 INSERT INTO Books VALUES(5, "THE MOTIVATION MYTH", "JEFF HADEN", "MOTIVATION", 2018, 250);
9 SELECT * FROM Books;
```

The bottom panel shows the 'Result Grid' with the following data:

ID	TITLE	AUTHOR	GENRE	YEAR	PRICE
1	ANIMATED CARTOONS	E.G.LUTZ	DRAWING	2008	299
2	FINGER DRAWING	ANDREW LOOMIS	Drawing	2012	399
3	THE SECRET	RHONDA BYRNE	PSYCHOLOGY	2008	500
4	INNER ENGINEERING	SADHGURU	PSYCHOLOGY	2016	450
5	THE MOTIVATION MYTH	JEFF HADEN	MOTIVATION	2018	250

The 'Output' panel shows the execution of the queries:

#	Time	Action	Message	Duration / Fetch
58	18:04:14	SELECT * FROM Books WHERE TITLE="THE MOTIVATION MYTH" LIMIT 0.1000	1 row(s) returned	0.000 sec / 0.000 sec
59	18:07:50	SELECT * FROM Books LIMIT 0.1000	5 row(s) returned	0.000 sec / 0.000 sec
60	18:08:09	SELECT * FROM Books LIMIT 0.1000	5 row(s) returned	0.000 sec / 0.000 sec

The status bar at the bottom indicates 'Query Completed'.

## B. Retrieve the details of a book based on its title.

```
CREATE DATABASE BookDB;
```

```
USE BookDB;
```

```
CREATE TABLE Books( ID INT PRIMARY KEY, TITLE VARCHAR(100), AUTHOR VARCHAR(30), GENRE  
VARCHAR(30), YEAR_PUBLICATION INT(10), PRICE INT(5));
```

```
INSERT INTO Books VALUES(1, "ANIMATED CARTOONS", "E.G.LUTZ", "DRAWING", 2008, 299);
```

```
INSERT INTO Books VALUES(2, "FINGER DRAWING", "ANDREW LOOMIS", "DRAWING", 2012, 399);
```

```
INSERT INTO Books VALUES(3, "THE SECRET", "RHONDA BYRNE", "PSYCHOLOGY", 2008, 500);
```

```
INSERT INTO Books VALUES(4, "INNER ENGINEERING", "SADHGURU", "PSYCHOLOGY", 2016, 450);
```

```
INSERT INTO Books VALUES(5, "THE MOTIVATION MYTH", "JEFF HADEN", "MOTIVATION", 2018, 250);
```

```
SELECT * FROM Books WHERE TITLE="ANIMATED CARTOONS";
```

```
SELECT * FROM Books WHERE TITLE="FINGER DRAWING";
```

```
SELECT * FROM Books WHERE TITLE="THE SECRET";
```

```
SELECT * FROM Books WHERE TITLE="INNER ENGINEERING";
```

```
SELECT * FROM Books WHERE TITLE="THE MOTIVATION MYTH";
```

The screenshot displays the MySQL Workbench interface. The top toolbar includes icons for file operations, query execution, and database management. The main editor window contains a list of SQL queries, numbered 1 through 14. The 'Result Grid' tab is active, showing the results of the first query, which returns a single row for the book 'ANIMATED CARTOONS' by E.G. LUTZ. The 'Output' tab is also visible, showing the execution log with timestamps and messages for each query.

ID	TITLE	AUTHOR	GENRE	YEAR	PRICE
1	ANIMATED CARTOONS	E.G.LUTZ	DRAWING	2008	299

Books 26 x

Output

#	Time	Action	Message	Duration / Fetch
59	18:07:50	SELECT * FROM Books LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
60	18:08:09	SELECT * FROM Books LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
61	18:08:58	SELECT * FROM Books WHERE TITLE="ANIMATED CARTOONS" LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec

Query Completed

### C. Update the price of a book.

```
CREATE DATABASE BookDB;
```

```
USE BookDB;
```

```
CREATE TABLE Books( ID INT PRIMARY KEY, TITLE VARCHAR(100), AUTHOR VARCHAR(30), GENRE  
VARCHAR(30), YEAR_PUBLICATION INT(10), PRICE INT(5));
```

```
INSERT INTO Books VALUES(1, "ANIMATED CARTOONS", "E.G.LUTZ", "DRAWING", 2008, 299);
```

```
INSERT INTO Books VALUES(2, "FINGER DRAWING", "ANDREW LOOMIS", "DRAWING", 2012, 399);
```

```
INSERT INTO Books VALUES(3, "THE SECRET", "RHONDA BYRNE", "PSYCHOLOGY", 2008, 500);
```

```
INSERT INTO Books VALUES(4, "INNER ENGINEERING", "SADHGURU", "PSYCHOLOGY", 2016, 450);
```

```
INSERT INTO Books VALUES(5, "THE MOTIVATION MYTH", "JEFF HADEN", "MOTIVATION", 2018, 250);
```

```
UPDATE Books SET PRICE = 250 WHERE TITLE = "ANIMATED CARTOONS";
```

```
UPDATE Books SET PRICE = 450 WHERE TITLE = "FINGER DRAWING";
```

```
UPDATE Books SET PRICE = 400 WHERE TITLE = "THE SECRET";
```

```
UPDATE Books SET PRICE = 300 WHERE TITLE = "INNER ENGINEERING";
```

```
UPDATE Books SET PRICE = 200 WHERE TITLE = "THE MOTIVATION MYTH";
```

```
SELECT * FROM Books;
```

The screenshot shows the MySQL Workbench interface with a query editor and a result grid. The query editor contains 14 SQL statements: creating a database, using it, creating a table, inserting 5 rows, and updating the price of each row. The result grid displays the data after the updates. The output pane shows the execution of the update queries, indicating the number of rows affected and the duration of each query.

ID	TITLE	AUTHOR	GENRE	YEAR	PRICE
1	ANIMATED CARTOONS	E.G.LUTZ	DRAWING	2008	250
2	FINGER DRAWING	ANDREW LOOMIS	DRAWING	2012	450
3	THE SECRET	RHONDA BYRNE	PSYCHOLOGY	2008	400
4	INNER ENGINEERING	SADHGURU	PSYCHOLOGY	2016	300
5	THE MOTIVATION MYTH	JEFF HADEN	MOTIVATION	2018	200

#	Time	Action	Message	Duration / Fetch
81	18:26:26	UPDATE Books SET PRICE = 300 WHERE TITLE = "INNER ENGINEERIN"	0 row(s) affected Rows matched: 0 Changed: 0 Warnings: 0	0.000 sec
82	18:26:29	UPDATE Books SET PRICE = 200 WHERE TITLE = "THE MOTIVATION MYTH"	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.015 sec
83	18:26:32	SELECT * FROM Books LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec

#### D. Delete a book from the database based on its title.

```
CREATE DATABASE BookDB;
```

```
USE BookDB;
```

```
CREATE TABLE Books( ID INT PRIMARY KEY, TITLE VARCHAR(100), AUTHOR VARCHAR(30), GENRE  
VARCHAR(30), YEAR_PUBLICATION INT(10), PRICE INT(5));
```

```
INSERT INTO Books VALUES(1, "ANIMATED CARTOONS", "E.G.LUTZ", "DRAWING", 2008, 299);
```

```
INSERT INTO Books VALUES(2, "FINGER DRAWING", "ANDREW LOOMIS", "DRAWING", 2012, 399);
```

```
INSERT INTO Books VALUES(3, "THE SECRET", "RHONDA BYRNE", "PSYCHOLOGY", 2008, 500);
```

```
INSERT INTO Books VALUES(4, "INNER ENGINEERING", "SADHGURU", "PSYCHOLOGY", 2016, 450);
```

```
INSERT INTO Books VALUES(5, "THE MOTIVATION MYTH", "JEFF HADEN", "MOTIVATION", 2018, 250);
```

```
DELETE FROM Books WHERE TITLE ="ANIMATED CARTOONS";
```

```
SELECT * FROM Books;
```

The screenshot displays the MySQL Workbench interface. The top toolbar includes icons for File, Edit, View, Query, Database, Server, Tools, Scripting, and Help. The main editor window contains the following SQL script:

```
1 CREATE DATABASE BookDB;
2 USE BookDB;
3 CREATE TABLE Books( ID INT PRIMARY KEY, TITLE VARCHAR(100), AUTHOR VARCHAR(30), GENRE VARCHAR(30), YEAR_PUBLICATION INT(10), PRICE INT(5));
4 INSERT INTO Books VALUES(1, "ANIMATED CARTOONS", "E.G.LUTZ", "DRAWING", 2008, 299);
5 INSERT INTO Books VALUES(2, "FINGER DRAWING", "ANDREW LOOMIS", "DRAWING", 2012, 399);
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7 INSERT INTO Books VALUES(4, "INNER ENGINEERING", "SADHGURU", "PSYCHOLOGY", 2016, 450);
8 INSERT INTO Books VALUES(5, "THE MOTIVATION MYTH", "JEFF HADEN", "MOTIVATION", 2018, 250);
9 DELETE FROM Books WHERE TITLE ="ANIMATED CARTOONS";
10 SELECT * FROM Books;
```

The 'Result Grid' at the bottom shows the output of the SELECT query, displaying 5 rows of book data:

ID	TITLE	AUTHOR	GENRE	YEAR	PRICE
2	FINGER DRAWING	ANDREW LOOMIS	Drawing	2012	450
3	THE SECRET	RHONDA BYRNE	PSYCHOLOGY	2008	400
4	INNER ENGINEERING	SADHGURU	PSYCHOLOGY	2016	450
5	THE MOTIVATION MYTH	JEFF HADEN	MOTIVATION	2018	200

The 'Output' pane at the bottom shows the execution log:

#	Time	Action	Message	Duration / Fetch
83	18:26:32	SELECT * FROM Books LIMIT 0. 1000	5 row(s) returned	0.000 sec / 0.000 sec
84	18:34:24	DELETE FROM Books WHERE TITLE ="ANIMATED CARTOONS"	1 row(s) affected	0.000 sec
85	18:34:26	SELECT * FROM Books LIMIT 0. 1000	4 row(s) returned	0.000 sec / 0.000 sec

The status bar at the bottom indicates 'Query Completed'.