

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.

Your task is to complete the assignment by writing the required SQL queries and demonstrating your understanding of basic MySQL concepts.

Good luck with your assignment, and may your SQL skills shine brightly in the realm of databases!

a. Retrieve all the books from the database.

```
CREATE DATABASE BOOKSDB;
```

```
USE BOOKSDB;
```

```
CREATE TABLE BOOKS(
```

```
TITLE VARCHAR(30),
```

```
AUTHOR VARCHAR(20),
```

```
GENRE VARCHAR(23),
```

```
PUBLICATIONYEAR INT,
```

```
PRICE INT
```

```
);
```

```
DESCRIBE BOOKS;
```

```
INSERT INTO BOOKS VALUES("THE HUNGER GAMES","SUZANNE COLLINS","YOUNG  
ADULT",2008,1500);
```

```
INSERT INTO BOOKS VALUES("TO THE LIGHTHOUSE","VIRGINIA WOOLF","MODERNIST  
LITERATURE",1927,1200);
```

```
INSERT INTO BOOKS VALUES("THE GREATGATSBY","F.SCOTT FITZGERALD","LITERARY  
FICTION",1925,3000);
```

```
INSERT INTO BOOKS VALUES("PRIDE AND PREJUDICE","JANE AUSTEN","ROMANCE",1813,200);
```

```
INSERT INTO BOOKS VALUES("DA VINCI CODE","DAN BROWN","THRILLER",2003,500);
```

```
SELECT*FROM BOOKS;
```

```
SELECT*FROM BOOKS WHERE TITLE="THE HUNGER GAMES";
```

```
UPDATE BOOKS SET PRICE=1300 WHERE TITLE="THE HUNGER GAMES";
```

SELECT*FROM BOOKS;.

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following queries:

```
11 • INSERT INTO BOOKS VALUES("THE HUNGER GAMES","SUZANNE COLLINS","YOUNG ADULT",2008,1500);
12 • INSERT INTO BOOKS VALUES("TO THE LIGHTHOUSE","VIRGINIA WOOLF","MODERNIST LITERATURE",1927,1200);
13 • INSERT INTO BOOKS VALUES("THE GREATGATSBY","F.SCOTT FITZGERALD","LITERARY FICTION",1925,3000);
14 • INSERT INTO BOOKS VALUES("PRIDE AND PREJUDICE","JANE AUSTEN","ROMANCE",1813,200);
15 • INSERT INTO BOOKS VALUES("DA VINCI CODE","DAN BROWN","THRILLER",2003,500);
16 • SELECT*FROM BOOKS;
17 •
```

The Result Grid shows the output of the SELECT query:

TITLE	AUTHOR	GENRE	PUBLICATIONYEAR	PRICE
THE HUNGER GAMES	SUZANNE COLLINS	YOUNG ADULT	2008	1500
TO THE LIGHTHOUSE	VIRGINIA WOOLF	MODERNIST LITERATURE	1927	1200
THE GREATGATSBY	F.SCOTT FITZGERALD	LITERARY FICTION	1925	3000
PRIDE AND PREJUDICE	JANE AUSTEN	ROMANCE	1813	200
DA VINCI CODE	DAN BROWN	THRILLER	2003	500

The Output tab shows the execution log:

#	Time	Action	Message	Duration / Fetch
6	20:41:00	INSERT INTO BOOKS VALUES("THE HUNGER GAMES","SUZANNE COLLINS"...	1 row(s) affected	0.000 sec
7	20:41:04	INSERT INTO BOOKS VALUES("TO THE LIGHTHOUSE","VIRGINIA WOOLF"...	1 row(s) affected	0.000 sec
8	20:41:08	INSERT INTO BOOKS VALUES("THE GREATGATSBY","F.SCOTT FITZGERALD"...	1 row(s) affected	0.000 sec
9	20:41:14	INSERT INTO BOOKS VALUES("PRIDE AND PREJUDICE","JANE AUSTEN"...	1 row(s) affected	0.000 sec
10	20:41:18	INSERT INTO BOOKS VALUES("DA VINCI CODE","DAN BROWN","THRILLER"...	1 row(s) affected	0.000 sec
11	20:41:22	SELECT*FROM BOOKS LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec

b. Retrieve the details of a book based on its title.

SELECT*FROM BOOKS WHERE TITLE="THE HUNGER GAMES";

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following queries:

```
13 • INSERT INTO BOOKS VALUES("THE GREATGATSBY","F.SCOTT FITZGERALD","LITERARY FICTION",1925,3000);
14 • INSERT INTO BOOKS VALUES("PRIDE AND PREJUDICE","JANE AUSTEN","ROMANCE",1813,200);
15 • INSERT INTO BOOKS VALUES("DA VINCI CODE","DAN BROWN","THRILLER",2003,500);
16 • SELECT*FROM BOOKS;
17 • SELECT*FROM BOOKS WHERE TITLE="THE HUNGER GAMES";
18 • UPDATE BOOKS SET PRICE=1300 WHERE TITLE="THE HUNGER GAMES";
19 •
```

The Result Grid shows the output of the SELECT query:

TITLE	AUTHOR	GENRE	PUBLICATIONYEAR	PRICE
THE HUNGER GAMES	SUZANNE COLLINS	YOUNG ADULT	2008	1500

The Output tab shows the execution log:

#	Time	Action	Message	Duration / Fetch
26	20:57:18	INSERT INTO BOOKS VALUES("TO THE LIGHTHOUSE","VIRGINIA WOOLF"...	1 row(s) affected	0.016 sec
27	20:57:22	INSERT INTO BOOKS VALUES("THE GREATGATSBY","F.SCOTT FITZGERALD"...	1 row(s) affected	0.000 sec
28	20:57:27	INSERT INTO BOOKS VALUES("PRIDE AND PREJUDICE","JANE AUSTEN"...	1 row(s) affected	0.000 sec
29	20:57:32	INSERT INTO BOOKS VALUES("DA VINCI CODE","DAN BROWN","THRILLER"...	1 row(s) affected	0.016 sec
30	20:57:45	SELECT*FROM BOOKS LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
31	20:58:01	SELECT*FROM BOOKS WHERE TITLE="THE HUNGER GAMES" LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec

c. Update the price of a book.

UPDATE BOOKS SET PRICE=1300 WHERE TITLE="THE HUNGER GAMES";

SELECT*FROM BOOKS;

The screenshot shows the MySQL Workbench interface. The SQL Editor contains the following queries:

```
14 INSERT INTO BOOKS VALUES("PRIDE AND PREJUDICE","JANE AUSTEN","ROMANCE",1813,200);
15 INSERT INTO BOOKS VALUES("DA VINCI CODE","DAN BROWN","THRILLER",2003,500);
16 SELECT*FROM BOOKS;
17 SELECT*FROM BOOKS WHERE TITLE="THE HUNGER GAMES";
18 UPDATE BOOKS SET PRICE=1300 WHERE TITLE="THE HUNGER GAMES";
19 SELECT*FROM BOOKS;
```

The Result Grid shows the following data:

TITLE	AUTHOR	GENRE	PUBLICATION YEAR	PRICE
THE HUNGER GAMES	SUZANNE COLLINS	YOUNG ADULT	2008	1300
TO THE LIGHTHOUSE	VIRGINIA WOOLF	MODERNIST LITERATURE	1927	1200
THE GREAT GATSBY	F. SCOTT FITZGERALD	LITERARY FICTION	1925	3000
PRIDE AND PREJUDICE	JANE AUSTEN	ROMANCE	1813	200
DA VINCI CODE	DAN BROWN	THRILLER	2003	500

The Output pane shows the following messages:

#	Time	Action	Message	Duration / Fetch
28	20:57:27	INSERT INTO BOOKS VALUES("PRIDE AND PREJUDICE","JANE AUSTEN","ROMANCE",1813,200);	1 row(s) affected	0.000 sec
29	20:57:32	INSERT INTO BOOKS VALUES("DA VINCI CODE","DAN BROWN","THRILLER",2003,500);	1 row(s) affected	0.016 sec
30	20:57:45	SELECT*FROM BOOKS LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
31	20:58:01	SELECT*FROM BOOKS WHERE TITLE="THE HUNGER GAMES" LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
32	20:58:23	UPDATE BOOKS SET PRICE=1300 WHERE TITLE="THE HUNGER GAMES"	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.016 sec
33	20:58:30	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.

DELETE FROM BOOKS WHERE TITLE="THE HUNGER GAMES";

The screenshot shows the MySQL Workbench interface. The SQL Editor contains the following queries:

```
14 INSERT INTO BOOKS VALUES("PRIDE AND PREJUDICE","JANE AUSTEN","ROMANCE",1813,200);
15 INSERT INTO BOOKS VALUES("DA VINCI CODE","DAN BROWN","THRILLER",2003,500);
16 SELECT*FROM BOOKS;
17 SELECT*FROM BOOKS WHERE TITLE="THE HUNGER GAMES";
18 UPDATE BOOKS SET PRICE=1300 WHERE TITLE="THE HUNGER GAMES";
19 SELECT*FROM BOOKS;
```

The Result Grid shows the following data:

TITLE	AUTHOR	GENRE	PUBLICATION YEAR	PRICE
TO THE LIGHTHOUSE	VIRGINIA WOOLF	MODERNIST LITERATURE	1927	1200
THE GREAT GATSBY	F. SCOTT FITZGERALD	LITERARY FICTION	1925	3000
PRIDE AND PREJUDICE	JANE AUSTEN	ROMANCE	1813	200
DA VINCI CODE	DAN BROWN	THRILLER	2003	500

The Output pane shows the following messages:

#	Time	Action	Message	Duration / Fetch
31	20:58:01	SELECT*FROM BOOKS WHERE TITLE="THE HUNGER GAMES" LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
32	20:58:23	UPDATE BOOKS SET PRICE=1300 WHERE TITLE="THE HUNGER GAMES"	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.016 sec
33	20:58:30	SELECT*FROM BOOKS LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
34	20:58:44	DELETE FROM BOOKS WHERE TITLE="THE HUNGER GAMES"	1 row(s) affected	0.000 sec
35	20:59:41	DELETE FROM BOOKS WHERE TITLE="THE HUNGER GAMES"	0 row(s) affected	0.000 sec
36	20:59:48	SELECT*FROM BOOKS LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec