

Roll no.: 31145

## Assignment no.: 7

```
USE te31145_db;
```

```
CREATE TABLE Library (
    book_id INT PRIMARY KEY NOT NULL,
    book_name VARCHAR(100),
    author VARCHAR(50),
    copies INT
);

CREATE TABLE Library_audit (
    audit_id INT AUTO_INCREMENT PRIMARY KEY,
    book_id INT,
    book_name VARCHAR(100),
    author VARCHAR(50),
    copies INT,
    action_type VARCHAR(10),
    action_time TIMESTAMP DEFAULT CURRENT_TIMESTAMP
);
```

```
DELIMITER $$
```

```
CREATE TRIGGER before_library_update
BEFORE UPDATE ON Library
FOR EACH ROW
BEGIN
    INSERT INTO Library_audit(book_id, book_name, author, copies, action_type)
    VALUES (OLD.book_id, OLD.book_name, OLD.author, OLD.copies, "UPDATE");
END $$
```

```
CREATE TRIGGER before_library_delete
BEFORE DELETE ON Library
FOR EACH ROW
BEGIN
    INSERT INTO Library_audit(book_id, book_name, author, copies, action_type)
    VALUES (OLD.book_id, OLD.book_name, OLD.author, OLD.copies, "DELETE");
END $$
```

```
DELIMITER ;
```

```
INSERT INTO Library (book_id, book_name, author, copies) VALUES
(100, 'Crash Landing on You', 'Hyun Bin', 5),
(101, 'It's Okay to Not Be Okay', 'Kim Soo-hyun', 6),
(102, 'Descendants of the Sun', 'Song Joong-ki', 4),
(103, 'Goblin (Guardian: The Lonely and Great God)', 'Gong Yoo', 5),
(104, 'Itaewon Class (Webtoon Adaptation)', 'Park Seo-joon', 6),
(105, 'Vincenzo', 'Song Joong-ki', 6),
(106, 'Sweet Home (Webtoon Adaptation)', 'Song Kang', 5),
(117, 'Start-Up', 'Bae Suzy', 4),
(118, 'All of Us Are Dead (Webtoon Adaptation)', 'Yoon Chan-young', 5);
```

```
SELECT * FROM Library;
```

book_id	book_name	author	copies
100	Crash Landing on You	Hyun Bin	5
101	It's Okay to Not Be Okay	Kim Soo-hyun	6
102	Descendants of the Sun	Song Joong-ki	4
103	Goblin (Guardian: The Lonely and Great God)	Gong Yoo	5
104	Itaewon Class (Webtoon Adaptation)	Park Seo-joon	6
105	Vincenzo	Song Joong-ki	6
106	Sweet Home (Webtoon Adaptation)	Song Kang	5
117	Start-Up	Bae Suzy	4
118	All of Us Are Dead (Webtoon Adaptation)	Yoon Chan-young	5

```
UPDATE Library
```

```
SET copies = 15
```

```
WHERE book_name = 'Crash Landing on You';
```

```
SELECT * FROM Library;
```

book_id	book_name	author	copies
100	Crash Landing on You	Hyun Bin	15
101	It's Okay to Not Be Okay	Kim Soo-hyun	6
102	Descendants of the Sun	Song Joong-ki	4
103	Goblin (Guardian: The Lonely and Great God)	Gong Yoo	5
104	Itaewon Class (Webtoon Adaptation)	Park Seo-joon	6
105	Vincenzo	Song Joong-ki	6
106	Sweet Home (Webtoon Adaptation)	Song Kang	5
117	Start-Up	Bae Suzy	4
118	All of Us Are Dead (Webtoon Adaptation)	Yoon Chan-young	5

```
SELECT * FROM Library_audit;
```

audit_id	book_id	book_name	author	copies	action_type	action_time
1	100	Crash Landing on You	Hyun Bin	5	UPDATE	2025-09-04 09:37:32

```
DELETE FROM Library
```

```
WHERE author = 'Bae Suzy';
```

```
SELECT * FROM Library;
```

book_id	book_name	author	copies
100	Crash Landing on You	Hyun Bin	15
101	It's Okay to Not Be Okay	Kim Soo-hyun	6
102	Descendants of the Sun	Song Joong-ki	4
103	Goblin (Guardian: The Lonely and Great God)	Gong Yoo	5
104	Itaewon Class (Webtoon Adaptation)	Park Seo-joon	6
105	Vincenzo	Song Joong-ki	6
106	Sweet Home (Webtoon Adaptation)	Song Kang	5
118	All of Us Are Dead (Webtoon Adaptation)	Yoon Chan-young	5

```
SELECT * FROM Library_audit;
```

audit_id	book_id	book_name	author	copies	action_type	action_time
1	100	Crash Landing on You	Hyun Bin	5	UPDATE	2025-09-04 09:37:32
2	117	Start-Up	Bae Suzy	4	DELETE	2025-09-04 09:40:32