**Creating the Library table**

MariaDB [te31265\_db]>CREATE TABLE Library(

stu\_roll\_no INT PRIMARY KEY,

stu\_name VARCHAR(20),

book\_name VARCHAR(20),

date\_of\_issue DATE,

price INT

);

Query OK, 0 rows affected (0.172 sec)

**Creating the Library\_Audit table**

MariaDB [te31265\_db]>CREATE TABLE Library\_Audit(

Action\_Performed VARCHAR(20),

DateAndTime DATETIME,

stu\_roll\_no INT REFERENCES Library(stu\_roll\_no),

stu\_name VARCHAR(20),

book\_name VARCHAR(20),

date\_of\_issue DATE,

price INT);

Query OK, 0 rows affected (0.172 sec)

**Inserting data into the Library table**

MariaDB [te31265\_db]>INSERT INTO Library VALUES

(1, 'Ananya', 'DBMS', '2024-07-21', 300),

(2, 'Karan', 'CNS', '2024-05-21', 500),

(3, 'Sneha', 'SPOS', '2024-07-10', 400),

(4, 'Rohan', 'OOP', '2024-08-16', 250),

(5, 'Nikita', 'DSA', '2024-06-26', 650),

(6, 'Aarav', 'OOP', '2024-01-01', 330),

(7, 'Vani', 'SPOS', '2024-02-18', 540),

(8, 'Pooja', 'CNS', '2024-01-31', 540),

(9, 'Ravi', 'DBMS', '2024-04-04', 820),

(10, 'Tara', 'PPL', '2024-03-07', 430);

Query OK, 10 rows affected (0.048 sec)

Records: 10 Duplicates: 0 Warnings: 0

**Creating a trigger for insert operation on Library**

MariaDB [te31265\_db]>DELIMITER $$

CREATE TRIGGER trig\_library\_insert

AFTER INSERT ON Library

FOR EACH ROW

BEGIN

INSERT INTO Library\_Audit

VALUES ("INSERT", NOW(), NEW.stu\_roll\_no, NEW.stu\_name, NEW.book\_name,

NEW.date\_of\_issue, NEW.price);

END $$

MariaDB [te31265\_db]>DELIMITER $$

CREATE TRIGGER trig\_library\_update

AFTER UPDATE ON Library

FOR EACH ROW

BEGIN

INSERT INTO Library\_Audit

VALUES ("UPDATE", NOW(), OLD.stu\_roll\_no, OLD.stu\_name, OLD.book\_name,

OLD.date\_of\_issue, OLD.price);

END $$

Query OK, 0 rows affected (0.080 sec)

MariaDB [te31265\_db]>DELIMITER ;

**Creating a trigger for delete operation on Library**

MariaDB [te31265\_db]>DELIMITER $$

CREATE TRIGGER trig\_library\_delete

BEFORE DELETE ON Library

FOR EACH ROW

BEGIN

INSERT INTO Library\_Audit

VALUES ("DELETE", NOW(), OLD.stu\_roll\_no, OLD.stu\_name, OLD.book\_name,

OLD.date\_of\_issue, OLD.price);

END $$

Query OK, 0 rows affected (0.066 sec)

MariaDB [te31265\_db]>DELIMITER ;

**Select all records from Library table**

MariaDB [te31265\_db]> select \* from Library;

+-------------+-----------+-----------+---------------+-------+

| stu\_roll\_no | stu\_name | book\_name | date\_of\_issue | price |

+-------------+-----------+-----------+---------------+-------+

| 1 | Ananya | DBMS | 2024-07-21 | 300 |

| 2 | Karan | CNS | 2024-05-21 | 500 |

| 3 | Sneha | SPOS | 2024-07-10 | 400 |

| 4 | Rohan | OOP | 2024-08-16 | 250 |

| 5 | Nikita | DSA | 2024-06-26 | 650 |

| 6 | Aarav | OOP | 2024-01-01 | 330 |

| 7 | Vani | SPOS | 2024-02-18 | 540 |

| 8 | Pooja | CNS | 2024-01-31 | 540 |

| 9 | Ravi | DBMS | 2024-04-04 | 820 |

| 10 | Tara | PPL | 2024-03-07 | 430 |

+-------------+-----------+-----------+---------------+-------+

**Updating stu\_name in the Library table**

UPDATE Library SET stu\_name = 'Sweety' WHERE stu\_name = 'Pornima';

Query OK, 1 row affected (0.044 sec)

Rows matched: 1 Changed: 1 Warnings: 0

**Deleting a record from Library table**

DELETE FROM Library WHERE stu\_name = 'Raghav';

Query OK, 1 row affected (0.035 sec)

**Inserting a new record into Library table**

INSERT INTO Library VALUES (20, 'Riya', 'PPS', '2024-08-26', 700);

Query OK, 1 row affected (0.029 sec)

**Select all records from Library\_Audit table after the new insertion**

+------------------+---------------------+-------------+----------+-----------+---------------+-------+

| Action\_Performed | DateAndTime | stu\_roll\_no | stu\_name | book\_name | date\_of\_issue | price |

+------------------+---------------------+-------------+----------+-----------+---------------+-------+

| UPDATE | 2024-09-11 12:28:34 | 8 | Sweety | CNS | 2024-01-31 | 540 |

| DELETE | 2024-09-11 12:29:09 | 5 | Raghav | DSA | 2024-06-26 | 650 |

| INSERT | 2024-09-11 12:29:47 | 20 | Riya | PPS | 2024-08-26 | 700 |

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