

Lab 7 & 8

- B19CSE065

```
MariaDB [database1]> show tables;
```

```
+-----+  
| Tables_in_database1 |  
+-----+  
| book_details |  
+-----+  
1 row in set (0.001 sec)
```

```
MariaDB [database1]> create table Author_Details(Author_ID varchar(10), Author_Name varchar(100));  
Query OK, 0 rows affected (0.278 sec)
```

```
MariaDB [database1]> show tables
```

```
->;  
+-----+  
| Tables_in_database1 |  
+-----+  
| author_details |  
| book_details |  
+-----+  
2 rows in set (0.001 sec)
```

```
MariaDB [database1]> create table Book_Purchase_Details(Book_ID varchar(15),PurchaseDt varchar(50),copies int ,Price(in_dollar) int,Purchase_Price(in_dollar) int,Book_Value int);  
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near '(in_dollar) int,Purchase_Price(in_dollar) int,Book_Value int)' at line 1
```

```
MariaDB [database1]> create table Book_Purchase_Details(Book_ID varchar(15),PurchaseDt varchar(50),copies int ,Price int,Purchase_Price int,Book_Value int);  
Query OK, 0 rows affected (0.228 sec)
```

```
MariaDB [database1]> show tables;
+-----+
| Tables_in_database1 |
+-----+
| author_details
| book_details
| book_purchase_details
+-----+
3 rows in set (0.001 sec)
```

```
MariaDB [database1]> desc author_details
-> ;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Author_ID | varchar(10) | YES | | NULL |
| Author_Name | varchar(100) | YES | | NULL |
+-----+-----+-----+-----+-----+-----+
```

```
2 rows in set (0.051 sec)

MariaDB [database1]> desc book_details
-> ;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Author_ID | varchar(10) | YES | | NULL |
| Book_ID | varchar(15) | YES | | NULL |
| Book | varchar(500) | YES | | NULL |
+-----+-----+-----+-----+-----+-----+
```

```
3 rows in set (0.035 sec)

MariaDB [database1]> desc book_purchase_details
-> ;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Book_ID | varchar(15) | YES | | NULL |
| Purchase_Dt | varchar(50) | YES | | NULL |
| copies | int(11) | YES | | NULL |
| Price | int(11) | YES | | NULL |
| Purchase_Price | int(11) | YES | | NULL |
| Book_Value | int(11) | YES | | NULL |
+-----+-----+-----+-----+-----+-----+
```

```
6 rows in set (0.039 sec)
```

```
MariaDB [database1]> select * from author_details;
```

Author_ID	Author_Name
Da_001	Damasio
Mi_009	Minsky
Ra_001	Ramachandran
Ro_015	Rowling
Ru_021	Russel
Sa_001	Safina
Ta_001	Tagore
To_015	Tolkien
Wo_015	Wodehouse

```
9 rows in set (0.001 sec)
```

```
MariaDB [database1]> insert into book_details(Author_ID,Book_ID,Book) values("Ro_015","Ro_015_Fan","Fantastic Beasts and Where to Find Them")
Query OK, 1 row affected (0.030 sec)
```

```
MariaDB [database1]> select * from book_details;
```

Author_ID	Book_ID	Book
Da_001	Da001_Sel	Self Comes to Mind
Mi_009	Mi009_Emo	Emotion Machine
Mi_009	Mi009_Soc	Society of Mind
NULL	NULL	NULL
Ra_001	Ra001_Pha	Phantoms in the Brain
Ro_015	Ro_015_Fan	Fantastic Beasts and Where to Find Them
Ro_015	Ro_015_Gob	Goblet of Fire_Harry Potter
Ro_015	Ro_015_Phi	Philosopher's Stone_Harry Potter
Ro_015	Ro_015_Pri	Prisoner of Azkaban_Harry Potter
Sa_001	Sa001_Voy	Voyage of the Turtle
Sa_001	Sa001_Wha	What Animals Think
To_015	To015_Fel	Fellowship of the Rings_Lord of the Rings
Wo_015	Wo015_Wod	Wodehouse at the Wicket

```
13 rows in set (0.001 sec)
```

```
MariaDB [database1]> insert into book_purchase_details(Book_ID,Purchase_Dt,copies,Price) values("Wo015_Wod","Sep 5, 2021",1,50);
Query OK, 1 row affected (0.131 sec)
```

```
MariaDB [database1]> select * from book_purchase_details;
```

Book_ID	Purchase_Dt	copies	Price	Purchase_Price	Book_Value
Mi009_Emo	Sep 2, 2021	2	50	100	1
Da001_Sel	Sep 1, 2021	1	50	50	1
Da001_Sel	Sep 7, 2021	5	50	250	3
Mi009_Soc	Sep 1, 2021	2	50	100	1
Ra001_Pha	Sep 2, 2021	2	50	100	1
Ro015_Fan	Sep 1, 2021	3	50	150	2
Ro015_Fan	Sep 9, 2021	12	35	420	4
Ro015_Gob	Sep 1, 2021	3	50	150	2
Ro015_Phi	Sep 1, 2021	3	50	150	2
Ro015_Phi	Sep 10, 2021	20	75	1500	15
Ro015_Pri	Sep 1, 2021	3	50	150	2
Sa001_Voy	Sep 2, 2021	2	50	100	1
Sa001_Wha	Sep 2, 2021	2	50	100	1
To015_Fel	Sep 1, 2021	3	50	150	2
To015_Fel	Sep 12, 2021	9	55	495	5
Wo015_Wod	Sep 5, 2021	1	50	50	1

```
16 rows in set (0.001 sec)
```

a) and b)

```
MariaDB [database1]> create view about_book as select x.Author_Name,y.Book,SUM(z.copies) from author_details x,book_details y,book_purchase_details z where x.Author_ID = y.Author_ID and y.Book_ID = z.Book_ID Group by y.Book;
Query OK, 0 rows affected (0.065 sec)

MariaDB [database1]> show tables;
+-----+
| Tables_in_database1 |
+-----+
| about_book          |
| author_details       |
| book_details         |
| book_purchase_details|
+-----+
4 rows in set (0.001 sec)
```

Time for creating
view

Query : create view about_book as select
x.Author_Name,y.Book,SUM(z.copies) from author_details x,book_details
y,book_purchase_details z where x.Author_ID = y.Author_ID and y.Book_ID
= z.Book_ID Group by y.Book;

```
MariaDB [database1]> select * from about_book;
```

Author_Name	Book	SUM(z.copies)
Minsky	Emotion Machine	2
Tolkien	Fellowship of the Rings_Lord of the Rings	12
Ramachandran	Phantoms in the Brain	2
Damasio	Self Comes to Mind	6
Minsky	Society of Mind	2
Safina	Voyage of the Turtle	2
Safina	What Animals Think	2
Wodehouse	Wodehouse at the Wicket	1

```
8 rows in set (0.002 sec)
```

Time taken for data retrieval from view

```
MariaDB [database1]> select x.Author_Name,y.Book,SUM(z.copies) from author_details x,book_details y,book_purchase_details z where x.Author_ID = y.Author_ID and y.Book_ID = z.Book_ID Group by y.Book;
```

Author_Name	Book	SUM(z.copies)
Minsky	Emotion Machine	2
Tolkien	Fellowship of the Rings_Lord of the Rings	12
Ramachandran	Phantoms in the Brain	2
Damasio	Self Comes to Mind	6
Minsky	Society of Mind	2
Safina	Voyage of the Turtle	2
Safina	What Animals Think	2
Wodehouse	Wodehouse at the Wicket	1

```
8 rows in set (0.001 sec)
```



Time taken by select query
for data retrieval

In case 1 time is 0.067

In case 2 time is 0.001

Case1 > case2

It looks select query is much better than creating views. However VIEWS get automatically updated on updating base table . So for multiple updates views can be better for execution.

If we want only results for few times then select query is more beneficial but for long run and bigger databases , it's better to make views. Once it's made retrieval time will be less than simple select as it acts like cache.

c) , d) , f)

```
insert into about_book(Author_Name,Book,SUM) VALUES("Rowling","abcdfeh",5);
```

MySQL said: 

#1471 - The target table about_book of the INSERT is not insertable-into

```
delete from about_book where Author_Name="Minsky";
```

MySQL said: 

#1288 - The target table about_book of the DELETE is not updatable

```
update about_book set Author_Name = "Minsky2" where Book = "Emotion Machine";
```

MySQL said: 

```
#1288 - The target table about_book of the UPDATE is not updatable
```

So here update,delete and insert on view about_book is not possible as it has where and group by clause in its query . However the views are also virtual tables and when these clauses like group by , where are not present it can be inserted,updated,deleted.

e) What happens to the view if you insert or delete tuples from the main database?

```
MariaDB [database1]> select * from about_book;
+-----+-----+
| Author_Name | Book           | SUM(z.copies) |
+-----+-----+
| Damasio    | Self Comes to Mind |       6        |
+-----+-----+
1 row in set (0.002 sec)
```

Initial state of view

```
MariaDB [database1]> insert into book_purchase_details(Book_ID,Purchase_Dt,copies,Price) values("Mi009_Emo","Sep 2,2021",2,50);
Query OK, 1 row affected (0.238 sec)
```

```
MariaDB [database1]> select * from book_purchase_details;
+-----+-----+-----+-----+-----+
| Book_ID | Purchase_Dt | copies | Price | Purchase_Price | Book_Value |
+-----+-----+-----+-----+-----+
| Da001_Sel | Sep 1,2021 |     1 |   50 |          50 |         1 |
| Da001_Sel | Sep 7, 2021 |     5 |   50 |         250 |         3 |
| Mi009_Emo | Sep 2,2021 |     2 |   50 |         100 |         1 |
+-----+-----+-----+-----+-----+
3 rows in set (0.001 sec)
```

Inserted into book purchase detail table “Mi009”

```
MariaDB [database1]> select * from about_book;
+-----+-----+
| Author_Name | Book           | SUM(z.copies) |
+-----+-----+
| Minsky     | Emotion Machine |        2        |
| Damasio    | Self Comes to Mind |       6        |
+-----+-----+
2 rows in set (0.002 sec)
```

Final state of view

```
MariaDB [database1]> select * from about_book;
+-----+-----+-----+
| Author_Name | Book           | SUM(z.copies) |
+-----+-----+-----+
| Minsky     | Emotion Machine |          2 |
| Damasio    | Self Comes to Mind |          6 |
+-----+-----+-----+
2 rows in set (0.002 sec)
```

Initial state of view
about_book

```
MariaDB [database1]> select * from book_purchase_details;
+-----+-----+-----+-----+-----+
| Book_ID | Purchase_Dt | copies | Price | Purchase_Price | Book_Value |
+-----+-----+-----+-----+-----+
| Da001_Sel | Sep 1, 2021 |      1 |   50 |          50 |         1 |
| Da001_Sel | Sep 7, 2021 |      5 |   50 |         250 |         3 |
| Mi009_Emo | Sep 2, 2021 |      2 |   50 |         100 |         1 |
+-----+-----+-----+-----+-----+
3 rows in set (0.000 sec)
```

```
MariaDB [database1]> delete from book_purchase_details where copies=5;
Query OK, 1 row affected (0.559 sec)
```

Deleted from book purchase detail where copies = 5.

```
MariaDB [database1]> select * from book_purchase_details;
+-----+-----+-----+-----+-----+
| Book_ID | Purchase_Dt | copies | Price | Purchase_Price | Book_Value |
+-----+-----+-----+-----+-----+
| Da001_Sel | Sep 1, 2021 |      1 |   50 |          50 |         1 |
| Mi009_Emo | Sep 2, 2021 |      2 |   50 |         100 |         1 |
+-----+-----+-----+-----+-----+
2 rows in set (0.001 sec)
```

```
MariaDB [database1]> select * from about_book;
+-----+-----+-----+
| Author_Name | Book           | SUM(z.copies) |
+-----+-----+-----+
| Minsky     | Emotion Machine |          2 |
| Damasio    | Self Comes to Mind |          1 |
+-----+-----+-----+
2 rows in set (0.001 sec)
```

No. of copies of the book deleted decreased from 6 to 1.

```
MariaDB [database1]>
```

g) Create a trigger to calculate the Purchase_Price of the books on the date of purchase

```
MariaDB [database1]> create trigger price_buy
-> before insert
-> on book_purchase_details
-> for each row
-> set new.Purchase_Price = new.copies * new.Price;
ERROR 1359 (HY000): Trigger 'database1.price_buy' already exists
MariaDB [database1]> show triggers;
+-----+-----+-----+-----+-----+
| Trigger | Event | Table           | Statement          | Timing | Created      | sql
+-----+-----+-----+-----+-----+
| price_buy | INSERT | book_purchase_details | set new.Purchase_Price = new.copies * new.Price | BEFORE | 2021-10-15 14:07:28.97 | NO
|          |        |                  |                |        |              | cp850_general_ci | utf8mb4_general_ci |
+-----+-----+-----+-----+-----+
1 row in set (0.060 sec)

MariaDB [database1]> insert into book_purchase_details(Book_ID,Purchase_Dt,copies,Price) values("Da0001_Sel","Sep 1,2021",1,50);
Query OK, 1 row affected (0.129 sec)

MariaDB [database1]> select * from book_purchase_details;
+-----+-----+-----+-----+-----+
| Book_ID | Purchase_Dt | copies | Price | Purchase_Price | Book_Value |
+-----+-----+-----+-----+-----+
| Da0001_Sel | Sep 1,2021 |     1 |    50 |         50 |      NULL |
+-----+-----+-----+-----+-----+
1 row in set (0.000 sec)

MariaDB [database1]> insert into book_purchase_details(Book_ID,Purchase_Dt,copies,Price) values("Da0001_Sel","Sep 7,2021",5,50);
Query OK, 1 row affected (1.822 sec)

MariaDB [database1]> select * from book_purchase_details;
+-----+-----+-----+-----+-----+
| Book_ID | Purchase_Dt | copies | Price | Purchase_Price | Book_Value |
+-----+-----+-----+-----+-----+
| Da0001_Sel | Sep 1,2021 |     1 |    50 |         50 |      NULL |
| Da0001_Sel | Sep 7,2021 |     5 |    50 |        250 |      NULL |
+-----+-----+-----+-----+-----+
2 rows in set (0.001 sec)
```

Purchase_Price set to
copies*price

h) Is the above an example of a DDL or a DML trigger

DML triggers are created on data manipulation language i.e. for statements with INSERT,UPDATE or DELETE where as DDL triggers are for data definition language i.e for statements such as ALTER,CREATE or DROP.

Here before trigger has been used on insert (data manipulation) hence its a DML trigger.

i) Can we create triggers on views? If yes, frame an example using the given scenario, if not justify your answer

Trigger on views can be created using instead of keyword.

But , Mysql only support two type of triggers that is before and after trigger and trigger on views is not supported.

The document for it :

<https://dev.mysql.com/doc/refman/8.0/en/triggers.html>

j)

DDL stands for Data Definition language .That is language which changes the definition of table/database . So it involves statements with key words create, alter ,delete. DDL triggers are fired on statements involving create , delete or alter table.We can create DDL trigger in specific database or server wide trigger.

k) Can you think of examples of DDL triggers for the given scenario?

If these tables gets dropped by mistake/intentionally there will be a lot of data loss. So we can use ROLLback keyword and create a trigger which will be fired on drop_table query and stop it from deleting.

```
CREATE TRIGGER stop_from_dropping_table
ON book_purchase_details
FOR DROP_TABLE AS
BEGIN
    PRINT 'Table can't be deleted'
    ROLLBACK TRANSACTION
END
```

I) Create a view/trigger comprising Author_name, Book_Name, Book_Value, where Book_Value derives from the Purchase_Price as on Purchase_Dt and Copies purchased

```
MariaDB [database1]> create trigger val
  -> before insert
  -> on book_purchase_details
  -> for each row
  -> set new.Book_Value = new.Purchase_Price / 100;
ERROR 2006 (HY000): MySQL server has gone away
No connection. Trying to reconnect...
Connection id:      334
Current database: database1

Query OK, 0 rows affected (0.201 sec)

MariaDB [database1]> show triggers;
+-----+-----+-----+-----+-----+
| Trigger | Event | Table          | Statement          | Timing |
| _set_client | collation_connection | Database Collation |
+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+
| price_buy | INSERT | book_purchase_details | set new.Purchase_Price = new.copies * new.Price | BEFORE |
|           |        |                         | cp850_general_ci   | utf8mb4_general_ci |
| val       | INSERT | book_purchase_details | set new.Book_Value = new.Purchase_Price / 100    | BEFORE |
|           |        |                         | cp850_general_ci   | utf8mb4_general_ci |
+-----+-----+-----+-----+-----+
2 rows in set (0.189 sec)

MariaDB [database1]> select * from book_purchase_details;
+-----+-----+-----+-----+-----+-----+
| Book_ID | Purchase_Dt | copies | Price | Purchase_Price | Book_Value |
+-----+-----+-----+-----+-----+-----+
| Da0001_Sel | Sep 1,2021 |     1 |    50 |         50 |      NULL |
| Da0001_Sel | Sep 7,2021 |     5 |    50 |        250 |      NULL |
+-----+-----+-----+-----+-----+
2 rows in set (0.122 sec)
```

Trigger val (before trigger)
create for Book_Value
formula used book_value =
purchase_price/100

```
MariaDB [database1]> insert into book_purchase_details(Book_ID,Purchase_Dt,copies,Price) values("Mi009_Emo","Sep 2,2021",2,50);
Query OK, 1 row affected (2.317 sec)
```

```
MariaDB [database1]> select * from book_purchase_details;
```

Book_ID	Purchase_Dt	copies	Price	Purchase_Price	Book_Value
Da001_Sel	Sep 1,2021	1	50	50	NULL
Da001_Sel	Sep 7,2021	5	50	250	NULL
Mi009_Emo	Sep 2,2021	2	50	100	1

```
3 rows in set (0.001 sec)
```

On doing division in mysql if answer is in decimal ciel value is selected ie. for purchase -price
1-100 ----> 1 (book value)
101-200 -> 2 (book value) and so on.

Now on inserting into
book_purchase_detail
Book_Value =
 $Purchase_Price/100$

Then created a view about_book3 with query:

```
create view about_book3 as select x.Book,y.Author_Name,z.Book_Value from book_details x,author_details y,book_purchase_details z where x.Author_ID = y.Author_ID and x.Book_ID=z.Book_ID;
```

```
MariaDB [database1]> select * from about_book3;
```

Book	Author_Name	Book_Value
Emotion Machine	Minsky	1
Self Comes to Mind	Damasio	1
Self Comes to Mind	Damasio	3
Society of Mind	Minsky	1
Phantoms in the Brain	Ramachandran	1
Voyage of the Turtle	Safina	1
What Animals Think	Safina	1
Fellowship of the Rings_Lord of the Rings	Tolkien	2
Fellowship of the Rings_Lord of the Rings	Tolkien	5
Wodehouse at the Wicket	Wodehouse	1

Group by not done so books don't get grouped

n) and o)

1st created a table t4

```
MariaDB [database1]> desc t4;
```

Field	Type	Null	Key	Default	Extra
Book_ID	varchar(15)	YES		NULL	
total_price	int(11)	YES		0	

```
2 rows in set (0.014 sec)
```

Set default of
total_price to 0.

✓ MySQL returned an empty result set (i.e. zero rows) (Query took 1 5417 seconds.)

```
CREATE TRIGGER ca1 AFTER INSERT ON book_purchase_details FOR EACH ROW BEGIN UPDATE t4 SET total_price = total_price + New.purchase_price WHERE t4.Book_ID = New.Book_ID; END;
```

[Edit inline] [Edit] [Create PHP code]

Created **after insert trigger** on book_purchase_detail to update table t4 with book purchase price every day.

Query:

```
CREATE TRIGGER ca1
AFTER INSERT ON book_purchase_details
FOR EACH ROW
BEGIN
    UPDATE t4
    SET total_price = total_price + New.purchase_price
    WHERE t4.Book_ID = New.Book_ID;
END
```

```
MariaDB [database1]> select * from t4;
```

Book_ID	total_price
Da001_Sel	50
Mi009_Emo	100
Mi009_Soc	0
Ra001_Pha	0
Ro015_Fan	0
Ro015_Gob	0
Ro015_Phi	0
Ro015_Pri	0
Sa001_Voy	0
Sa001_Wha	0
To015_Fel	0
Wo015_Wod	0

```
MariaDB [database1]> insert into book_purchase_details(Book_ID,Purchase_Dt,copies,Price) values("Da001_Sel","Sep 7, 2021",5,50);  
Query OK, 1 row affected (1.418 sec)
```

```
MariaDB [database1]> select * from book_purchase_details;
```

Book_ID	Purchase_Dt	copies	Price	Purchase_Price	Book_Value
Mi009_Emo	Sep 2, 2021	2	50	100	1
Da001_Sel	Sep 1, 2021	1	50	50	1
Da001_Sel	Sep 7, 2021	5	50	250	3

3 rows in set (0.001 sec)

```
MariaDB [database1]> select * from t4;
```

Book_ID	total_price
Da001_Sel	300
Mi009_Emo	100
Mi009_Soc	0
Ra001_Pha	0
Ro015_Fan	0
Ro015_Gob	0
Ro015_Phi	0
Ro015_Pri	0
Sa001_Voy	0
Sa001_Wha	0
To015_Fel	0
Wo015_Wod	0

Initial state of table t4.

New tuple added to book_purchase_detail

Purchase_price inserted due to before trigger

Total_price of the book updated.

So every time an entry is added in book_purchase_detail table purchase price is calculated by before trigger and total purchase price of any book is added in t4 table due to after trigger.

So this is example of using before and after trigger together.

And trigger used for total money the library has spent for purchasing each book is after trigger.

Final prices of books:

```
MariaDB [database1]> select * from t4;
+-----+-----+
| Book_ID | total_price |
+-----+-----+
| Da001_Sel |      300 |
| Mi009_Emo |      100 |
| Mi009_Soc |      100 |
| Ra001_Pha |      100 |
| Ro015_Fan |      570 |
| Ro015_Gob |      150 |
| Ro015_Phi |     1650 |
| Ro015_Pri |      150 |
| Sa001_Voy |      100 |
| Sa001_Wha |      100 |
| To015_Fel |      645 |
| Wo015_Wod |       50 |
+-----+-----+
12 rows in set (0.001 sec)
```

m) Calculate the total money the library has spent for purchasing all books using triggers. What type of trigger are you going to use for this ?

1st created a table t5 with one column final_amount and one row in it.

```
MariaDB [database1]> desc t5;
```

Field	Type	Null	Key	Default	Extra
final_amount	int(11)	YES		0	

1 row in set (0.685 sec)

Then created **after trigger** on book purchase detail table to update final_amount in t5.

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0878 seconds.)

```
CREATE TRIGGER final AFTER INSERT ON book_purchase_details FOR EACH ROW BEGIN UPDATE t5 SET final_amount = final_amount + New.Purchase_Price; END#;
```

```
MariaDB [database1]> select * from t5;
+-----+
| final_amount |
+-----+
|      500 |
+-----+
1 row in set (0.001 sec)
```

Initial state of t5

```
MariaDB [database1]> select * from book_purchase_details;
+-----+-----+-----+-----+-----+-----+
| Book_ID | Purchase_Dt | copies | Price | Purchase_Price | Book_Value |
+-----+-----+-----+-----+-----+-----+
| Mi009_Emo | Sep 2, 2021 | 2 | 50 | 100 | 1 |
| Da001_Sel | Sep 1, 2021 | 1 | 50 | 50 | 1 |
| Da001_Sel | Sep 7, 2021 | 5 | 50 | 250 | 3 |
| Mi009_Soc | Sep 1, 2021 | 2 | 50 | 100 | 1 |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.000 sec)
```

```
MariaDB [database1]> insert into book_purchase_details(Book_ID,Purchase_Dt,copies,Price) values("Ra001_Pha", "Sep 2, 2021", 2, 50);
Query OK, 1 row affected (0.100 sec)
```

```
MariaDB [database1]> select * from book_purchase_details;
+-----+-----+-----+-----+-----+-----+
| Book_ID | Purchase_Dt | copies | Price | Purchase_Price | Book_Value |
+-----+-----+-----+-----+-----+-----+
| Mi009_Emo | Sep 2, 2021 | 2 | 50 | 100 | 1 |
| Da001_Sel | Sep 1, 2021 | 1 | 50 | 50 | 1 |
| Da001_Sel | Sep 7, 2021 | 5 | 50 | 250 | 3 |
| Mi009_Soc | Sep 1, 2021 | 2 | 50 | 100 | 1 |
| Ra001_Pha | Sep 2, 2021 | 2 | 50 | 100 | 1 |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.000 sec)
```

Inserted into book purchase detail

```
MariaDB [database1]> select * from t5;
+-----+
| final_amount |
+-----+
|      600 |
+-----+
1 row in set (0.000 sec)
```

Purchase price inserted
100

```
MariaDB [database1]> ■
```

Final_amount update to
600

```
MariaDB [database1]> select * from t5;
+-----+
| final_amount |
+-----+
|        4015 |
+-----+
1 row in set (0.001 sec)
```

Final amount