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## Assignment No .6

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**Problem Statement :** Database Trigger (All Types: Row level and Statement level triggers, Before and After Triggers). Write a database trigger on Library table. The System should keep track of the records that are being updated or deleted. The old value of updated or deleted records should be added in Library\_Audit table. Frame the problem statement for writing Database Triggers of all types, in-line with above statement. The problem statement should clearly state the requirements

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- **Create table borrower**

```
mysql> create table borrower2(roll_no int,name varchar(20),date_of_issue date,book
```

Query OK, 0 rows affected (0.44 sec)

- **Insert Values into table**

```
mysql> insert into borrower2 values('1','nick','2018-06-10','wings_of_fire','avaliable','APJ');
```

Query OK, 1 row affected (0.07 sec)

```
mysql> insert into borrower2 values('2','mira','2018-05-11','leaves_life','not_avaliable','borwarkar');
```

Query OK, 1 row affected (0.05 sec)

```
mysql> insert into borrower2 values('3','rina','2018-02-12','unusal','avaliable','johar');
```

Query OK, 1 row affected (0.04 sec)

```
mysql> insert into borrower2 values('4','harsha','2018-06-20','skylimit','avaliable','ingale');
```

Query OK, 1 row affected (0.05 sec)

```
mysql> insert into borrower2 values('5','tej','2018-04-20','highway','not_avaliable','klm');
```

Query OK, 1 row affected (0.05 sec)

```
mysql> select *from borrower1;
```

roll_no	name	date_of_issue	book_name	status	author
1	nick	2018-06-10	wings_of_fire	avaliable	APJ
2	mira	2018-05-11	leaves_life	not_avaliable	borwarkar
3	rina	2018-02-12	unusal	avaliable	johar
4	harsha	2018-06-20	skylimit	avaliable	ingale
5	tej	2018-04-20	highway	not_avaliable	klm

5 rows in set (0.00 sec)

- **Insert Trigger**

```
mysql> delimiter //
```

```
mysql> create trigger library after insert on borrower1 for each row
```

```
-> begin
```

```
-> insert into audit1
```

```
values(new.roll_no,new.name,new.date_of_issue,new.book_name,new.status,new.author,current_timesta  
mp);
```

```
-> end;
```

```
-> //
```

Query OK, 0 rows affected (0.10 sec)

```
mysql> insert into borrower1 values('6','xyz','2018-09-06','aaa','available','xxx');
```

-> //

Query OK, 1 row affected (0.07 sec)

```
mysql> select * from borrower1;
```

-> //

roll_no	name	date_of_issue	book_name	status	author
1	nick	2018-06-10	wings_of_fire	available	APJ
2	mira	2018-05-11	leaves_life	not_available	borwarkar
3	rina	2018-02-12	unusal	available	johar
4	harsha	2018-06-20	skylimit	available	ingale
5	tej	2018-04-20	highway	not_available	klm
6	xyz	2018-09-06	aaa	available	xxx

6 rows in set (0.00 sec)

```
mysql> select * from audit1;
```

-> //

roll_no	name	date_of_issue	book_name	status	author	ts
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```
| 6 | xyz | 2018-09-06 | aaa | available | xxx | 2018-08-29 15:46:13 |
```

```
+-----+-----+-----+-----+-----+-----+
```

1 row in set (0.00 sec)

- **Update Trigger**

```
mysql> delimiter //
```

```
mysql> create trigger library1 after update on borrower1 for
```

each row

```
-> begin
```

```
-> insert into audit1
```

```
values(new.roll_no,new.name,new.date_of_issue,new.book_name,ne
```

```
w.status,new.author,current_timestamp);
```

```
-> end;
```

```
-> //
```

Query OK, 0 rows affected (0.08 sec)

```
mysql> update borrower1 set roll_no='8',book_name='leaf'
```

```
where name='xyz';
```

```
-> //
```

Query OK, 1 row affected (0.04 sec)

Rows matched: 1 Changed: 1 Warnings: 0

```
mysql> select *from borrower1;
```

```
-> //
```

```
+-----+-----+-----+-----+-----+-----+
```

```
| roll_no | name | date_of_issue | book_name | status | author |
```

```
+-----+-----+-----+-----+-----+-----+
```

1	nick	2018-06-10	wings_of_fire	available	APJ	
---	------	------------	---------------	-----------	-----	--

2	mira	2018-05-11	leaves_life	not_available	borwarkar	
---	------	------------	-------------	---------------	-----------	--

3	rina	2018-02-12	unusal	available	johar	
---	------	------------	--------	-----------	-------	--

4	harsha	2018-06-20	skylimit	available	ingale	
---	--------	------------	----------	-----------	--------	--

5	tej	2018-04-20	highway	not_available	klm	
---	-----	------------	---------	---------------	-----	--

8	xyz	2018-09-06	leaf	available	xxx	
---	-----	------------	------	-----------	-----	--

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6 rows in set (0.00 sec)