

CREATED BY NIBIN P SREENIVAS

```
\\1 create and drop
mysql> CREATE DATABASE library;
Query OK, 1 row affected (0.00 sec)
```

```
mysql> drop database library;
Query OK, 0 rows affected (0.07 sec)
output
```

```
mysql> show databases;
+-----+
| Database |
+-----+
| library  |
| movie    |
| mysql    |
| performance_schema |
| record   |
| std      |
| student  |
| students |
| sys      |
+-----+
25 rows in set (0.00 sec)
```

```
mysql> use library;
Database changed
\\2 create table
queries
```

```
mysql> CREATE TABLE book (book_id int(10),title varchar(20), language_id int(10), mrp
bigint(10), published_id int(10), published_date date, volume int(10), status
varchar(10),PRIMARY KEY (book_id));
Query OK, 0 rows affected (0.28 sec)
```

```
mysql> CREATE TABLE author (author_id int(10) primary key,name varchar(20),email
varchar(20),phono int(20),status varchar(20));
Query OK, 0 rows affected (0.29 sec)
```

```
mysql> CREATE TABLE book_author (book_id int(10),author_id int(10),CONSTRAINT COMP_NAME
PRIMARY KEY (book_id,author_id));
Query OK, 0 rows affected (0.27 sec)
```

```
mysql> CREATE TABLE publisher (publisher_id int(10) primary key,name varchar(20),address
varchar(10));
Query OK, 0 rows affected (0.29 sec)
```

```
mysql> CREATE TABLE member(member_id int(10) primary key,name varchar(20),branch_code
int(10),roll_no int(10),email varchar(20),date_of_join date,status varchar(20));
Query OK, 0 rows affected (0.27 sec)
```

```
mysql> CREATE TABLE book_issue (issue_id int(10) primary key,date_of_join date,book_id
int(20),member_id int(20),expected_date_of_return date);
Query OK, 0 rows affected (0.28 sec)
```

```
mysql> CREATE TABLE book_return (issue_id int(10) primary key,actual_date_of_return
date ,tae_days date,late_fee int(10));
Query OK, 0 rows affected (0.28 sec)
```

```
mysql> CREATE TABLE language (lang_id int(10) primary key,name varchar(20));
```

Query OK, 0 rows affected (0.27 sec)

```
mysql> CREATE TABLE late_fee_rule (from_days int(10),to_days int,amount int(10),CONSTRAINT
COMP1_NAME PRIMARY KEY (from_days,to_days,amount));
```

Query OK, 0 rows affected (0.29 sec)

```
mysql> ALTER TABLE book ADD CONSTRAINT c1 FOREIGN KEY(published_id) REFERENCES
publisher(publisher_id);
```

Query OK, 0 rows affected (0.80 sec)

Records: 0 Duplicates: 0 Warnings: 0

```
mysql> ALTER TABLE book ADD CONSTRAINT c2 FOREIGN KEY(language_id) REFERENCES
language(lang_id);
```

Query OK, 0 rows affected (0.89 sec)

Records: 0 Duplicates: 0 Warnings: 0

output

```
mysql> desc book
```

-> ;

Field	Type	Null	Key	Default	Extra
book_id	int(10)	NO	PRI	NULL	
title	varchar(20)	YES		NULL	
language_id	int(10)	YES	MUL	NULL	
mrp	bigint(10)	YES		NULL	
published_id	int(10)	YES	MUL	NULL	
published_date	date	YES		NULL	
volume	int(10)	YES		NULL	
status	varchar(10)	YES		NULL	

8 rows in set (0.00 sec)

```
mysql> desc author;
```

Field	Type	Null	Key	Default	Extra
author_id	int(10)	NO	PRI	NULL	
name	varchar(20)	YES		NULL	
email	varchar(20)	YES		NULL	
phono	int(20)	YES		NULL	
status	varchar(20)	YES		NULL	

5 rows in set (0.00 sec)

```
mysql> desc book_author;
```

Field	Type	Null	Key	Default	Extra
book_id	int(10)	NO	PRI	NULL	
author_id	int(10)	NO	PRI	NULL	

2 rows in set (0.00 sec)

```
mysql> desc publisher;
```

Field	Type	Null	Key	Default	Extra
publisher_id	int(10)	NO	PRI	NULL	
name	varchar(20)	YES		NULL	
address	varchar(10)	YES		NULL	

3 rows in set (0.00 sec)

```
mysql> desc member;
```

Field	Type	Null	Key	Default	Extra
member_id	int(10)	NO	PRI	NULL	
name	varchar(20)	YES		NULL	
branch_code	int(10)	YES		NULL	
roll_no	int(10)	YES		NULL	
email	varchar(20)	YES		NULL	
date_of_join	date	YES		NULL	
status	varchar(20)	YES		NULL	

7 rows in set (0.00 sec)

mysql> desc book_issue

-> ;

Field	Type	Null	Key	Default	Extra
issue_id	int(10)	NO	PRI	NULL	
date_of_join	date	YES		NULL	
book_id	int(20)	YES	MUL	NULL	
member_id	int(20)	YES	MUL	NULL	
expected_date_of_return	date	YES		NULL	

5 rows in set (0.00 sec)

mysql> desc book_issue

-> ;

Field	Type	Null	Key	Default	Extra
issue_id	int(10)	NO	PRI	NULL	
date_of_join	date	YES		NULL	
book_id	int(20)	YES	MUL	NULL	
member_id	int(20)	YES	MUL	NULL	
expected_date_of_return	date	YES		NULL	

5 rows in set (0.00 sec)

mysql> desc book_issue

-> ;

Field	Type	Null	Key	Default	Extra
issue_id	int(10)	NO	PRI	NULL	
date_of_join	date	YES		NULL	
book_id	int(20)	YES	MUL	NULL	
member_id	int(20)	YES	MUL	NULL	
expected_date_of_return	date	YES		NULL	

5 rows in set (0.00 sec)

mysql> desc late_fee_rule;

Field	Type	Null	Key	Default	Extra
from_days	int(10)	NO	PRI	NULL	
to_days	int(11)	NO	PRI	NULL	
amount	int(10)	NO	PRI	NULL	

3 rows in set (0.00 sec)

```
//3 dropping table with foregin key
queris
mysql> DROP TABLE language;
ERROR 1217 (23000): Cannot delete or update a parent row: a foreign key constraint fails
```

```
//3 dropping table without foregin key
mysql> DROP table
book;
```

Query OK, 0 rows affected (0.16 sec)

```
//4 alter command without data
mysql> ALTER TABLE book ADD pageno int(20);
Query OK, 0 rows affected (0.58 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> desc book;
```

Field	Type	Null	Key	Default	Extra
book_id	int(10)	NO	PRI	NULL	
title	varchar(20)	YES		NULL	
language_id	int(10)	YES	MUL	NULL	
mrp	bigint(10)	YES		NULL	
published_id	int(10)	YES	MUL	NULL	
published_date	date	YES		NULL	
volume	int(10)	YES		NULL	
status	varchar(10)	YES		NULL	
pageno	int(20)	YES		NULL	

9 rows in set (0.00 sec)

```
mysql> ALTER TABLE book drop column pageno;
Query OK, 0 rows affected (0.61 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> desc book;
```

Field	Type	Null	Key	Default	Extra
book_id	int(10)	NO	PRI	NULL	
title	varchar(20)	YES		NULL	
language_id	int(10)	YES	MUL	NULL	
mrp	bigint(10)	YES		NULL	
published_id	int(10)	YES	MUL	NULL	
published_date	date	YES		NULL	
volume	int(10)	YES		NULL	
status	varchar(10)	YES		NULL	

8 rows in set (0.00 sec)

\\4 alter command with data

```
mysql> ALTER TABLE language ADD pageno int(20);
Query OK, 0 rows affected (0.72 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> desc language;
```

Field	Type	Null	Key	Default	Extra
-------	------	------	-----	---------	-------

```
+-----+-----+-----+-----+-----+
| lang_id | int(10) | NO | PRI | NULL | |
| name    | varchar(20) | YES | | NULL | |
| pageno  | int(20) | YES | | NULL | |
+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

```
mysql> select * from language
-> ;
```

```
+-----+-----+-----+
| lang_id | name    | pageno |
+-----+-----+-----+
| 1       | nibin   | NULL   |
| 2       | ashwin  | NULL   |
+-----+-----+-----+
2 rows in set (0.00 sec)
```

```
mysql> insert into language values(3,'bibin',22);
Query OK, 1 row affected (0.04 sec)
```

```
mysql> select * from language
-> ;
```

```
+-----+-----+-----+
| lang_id | name    | pageno |
+-----+-----+-----+
| 1       | nibin   | NULL   |
| 2       | ashwin  | NULL   |
| 3       | bibin   | 22     |
+-----+-----+-----+
3 rows in set (0.00 sec)
```

```
mysql> ALTER TABLE language drop column pageno;
Query OK, 0 rows affected (0.66 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> select * from language
-> ;
```

```
+-----4 alter command without data+-----+
| lang_id | name    |
+-----+-----+
| 1       | nibin   |
| 2       | ashwin  |
| 3       | bibin   |
+-----+-----+
3 rows in set (0.00 sec)
```

```
mysql>
```

```
\\5 create and exec index
```

```
query
```

```
mysql> CREATE INDEX inbook ON book_issue(member_id,book_id);
```

```
Query OK, 0 rows affected (0.34 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
output
```

```
mysql> show index from book_issue
```

```
-> ;
+-----+-----+-----+-----+-----+-----+-----+
| Table      | Non_unique | Key_name | Seq_in_index | Column_name | Collation | Cardinality |
| Sub_part  | Packed    | Null    | Index_type   | Comment     | Index_comment |
+-----+-----+-----+-----+-----+-----+-----+
| book_issue | 0         | PRIMARY | 1            | issue_id    | A          | 0           |
|            | NULL     | NULL    | BTREE       |             |             |             |
| book_issue | 1         | c5      | 1            | book_id     | A          | 0           |
```



```
+-----+-----+-----+-----+
|          1 | nibin | nibin@gmail.com | 7999 | avil |
+-----+-----+-----+-----+
1 row in set (0.00 sec)
```

```
mysql> SELECT * FROM book_author;
```

```
+-----+-----+
| book_id | author_id |
+-----+-----+
|          1 |          1 |
+-----+-----+
1 row in set (0.00 sec)
```

```
mysql> SELECT * FROM publisher;
```

```
+-----+-----+-----+
| publisher_id | name | address |
+-----+-----+-----+
|              1 | nibin | tvl      |
|              2 | nibin | tvl      |
|              3 | nibin | tvl      |
+-----+-----+-----+
3 rows in set (0.00 sec)
```

```
mysql> SELECT * FROM member;
```

```
+-----+-----+-----+-----+-----+-----+-----+
| member_id | name | branch_code | roll_no | email | date_of_join | status |
+-----+-----+-----+-----+-----+-----+-----+
|          1 | m1   |          1 |      1 | nibin@gamil.com | 2022-05-28 | valid |
+-----+-----+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)
```

```
mysql> SELECT * FROM book_issue;
```

```
+-----+-----+-----+-----+-----+
| issue_id | date_of_join | book_id | member_id | expected_date_of_return |
+-----+-----+-----+-----+-----+
|          1 | 2022-01-23 |          1 |          1 | 2022-05-24 |
+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)
```

```
mysql> SELECT * FROM language;
```

```
+-----+-----+
| lang_id | name |
+-----+-----+
|          1 | lang1 |
+-----+-----+
1 row in set (0.00 sec)
```

```
mysql> SELECT * FROM late_fee_rule;
```

```
+-----+-----+-----+
| from_days | to_days | amount |
+-----+-----+-----+
|          11 |          15 |          100 |
+-----+-----+-----+
1 row in set (0.00 sec)
```

```
\\8 bluk import of data from csv 25 RECORDS
```

```
Empty set (0.00 sec)
```

```
mysql> LOAD DATA INFILE ':///var/lib/mysql-files/book.csv' INTO TABLE book FIELDS TERMINATED
BY ',' ENCLOSED BY '"' LINES TERMINATED BY '\n' IGNORE 1 ROWS;
Query OK, 25 rows affected (0.07 sec)
Records: 25 Deleted: 0 Skipped: 0 Warnings: 0
```

```
mysql> SELECT * FROM book;
```

book_id	title	language_id	mrp	published_id	published_date	volume	status
1	java	1	2330	1	2022-06-06	1	avail
2	C	2	2330	2	2022-06-06	2	avail
3	C++	3	2330	3	2022-06-06	3	avail
4	java	4	2330	4	2022-06-06	4	avail
5	java	5	2330	5	2022-06-06	5	avail
6	java	6	2330	6	2022-06-06	6	avail
7	java	7	2330	7	2022-06-06	7	avail
8	C	8	2330	8	2022-06-06	8	avail
9	C	9	2330	9	2022-06-06	9	avail
10	C	10	2330	10	2022-06-06	10	avail
11	C	11	2330	11	2022-06-06	11	avail
12	PYTHON	12	2330	12	2022-06-06	12	avail
13	PYTHON	13	2330	13	2022-06-06	13	avail
14	PYTHON	14	2330	14	2022-06-06	14	avail
15	PYTHON	15	2330	15	2022-06-06	15	avail
16	PYTHON	16	2330	16	2022-06-06	16	avail
17	PYTHON	17	2330	17	2022-06-06	17	avail
18	C++	18	2330	18	2022-06-06	18	avail
19	C++	19	2330	19	2022-06-06	19	avail
20	C++	20	2330	20	2022-06-06	20	avail
21	C++	21	2330	21	2022-06-06	21	avail
22	OS	22	2330	22	2022-06-06	22	avail
23	OS	23	2330	23	2022-06-06	23	avail
24	OS	24	2330	24	2022-06-06	24	avail
25	OS	25	2330	25	2022-06-06	25	avail

25 rows in set (0.00 sec)

\\9 A) BULK UPADTE OR DELETE

```
mysql> update book set status = (CASE book_id WHEN 1 THEN 'not_avil' when 2 THEN 'not_avil'
when 3 THEN 'not_avil' when 4 THEN 'not_avil' when 5 THEN 'not_avil' END) Where book_id
IN(1,2,3,4,5);
```

Query OK, 5 rows affected (0.12 sec)

Rows matched: 5 Changed: 5 Warnings: 0

```
mysql> SELECT * FROM book;
```

book_id	title	language_id	mrp	published_id	published_date	volume	status
1	java	1	2330	1	2022-06-06	1	not_avil
2	C	2	2330	2	2022-06-06	2	not_avil
3	C++	3	2330	3	2022-06-06	3	not_avil
4	java	4	2330	4	2022-06-06	4	not_avil
5	java	5	2330	5	2022-06-06	5	not_avil
6	java	6	2330	6	2022-06-06	6	avail
7	java	7	2330	7	2022-06-06	7	avail
8	C	8	2330	8	2022-06-06	8	avail
9	C	9	2330	9	2022-06-06	9	avail
10	C	10	2330	10	2022-06-06	10	avail
11	C	11	2330	11	2022-06-06	11	avail
12	PYTHON	12	2330	12	2022-06-06	12	avail
13	PYTHON	13	2330	13	2022-06-06	13	avail
14	PYTHON	14	2330	14	2022-06-06	14	avail
15	PYTHON	15	2330	15	2022-06-06	15	avail
16	PYTHON	16	2330	16	2022-06-06	16	avail
17	PYTHON	17	2330	17	2022-06-06	17	avail
18	C++	18	2330	18	2022-06-06	18	avail
19	C++	19	2330	19	2022-06-06	19	avail
20	C++	20	2330	20	2022-06-06	20	avail
21	C++	21	2330	21	2022-06-06	21	avail
22	OS	22	2330	22	2022-06-06	22	avail

23	OS	23	2330	23	2022-06-06	23	avail
24	OS	24	2330	24	2022-06-06	24	avail
25	OS	25	2330	25	2022-06-06	25	avail

25 rows in set (0.00 sec)

```
mysql> DELETE FROM book WHERE status = 'not_avil';
Query OK, 5 rows affected (0.07 sec)
```

```
mysql> SELECT * FROM book;
```

book_id	title	language_id	mrp	published_id	published_date	volume	status
6	java	6	2330	6	2022-06-06	6	avail
7	java	7	2330	7	2022-06-06	7	avail
8	C	8	2330	8	2022-06-06	8	avail
9	C	9	2330	9	2022-06-06	9	avail
10	C	10	2330	10	2022-06-06	10	avail
11	C	11	2330	11	2022-06-06	11	avail
12	PYTHON	12	2330	12	2022-06-06	12	avail
13	PYTHON	13	2330	13	2022-06-06	13	avail
14	PYTHON	14	2330	14	2022-06-06	14	avail
15	PYTHON	15	2330	15	2022-06-06	15	avail
16	PYTHON	16	2330	16	2022-06-06	16	avail
17	PYTHON	17	2330	17	2022-06-06	17	avail
18	C++	18	2330	18	2022-06-06	18	avail
19	C++	19	2330	19	2022-06-06	19	avail
20	C++	20	2330	20	2022-06-06	20	avail
21	C++	21	2330	21	2022-06-06	21	avail
22	OS	22	2330	22	2022-06-06	22	avail
23	OS	23	2330	23	2022-06-06	23	avail
24	OS	24	2330	24	2022-06-06	24	avail
25	OS	25	2330	25	2022-06-06	25	avail

20 rows in set (0.00 sec)

\\9 b) update and delete on tables with pk and fk (not complete)

```
mysql> UPDATE book SET book_id= 99 where book_id=1;
Query OK, 1 row affected (0.07 sec)
Rows matched: 1 Changed: 1 Warnings: 0
```

```
mysql> UPDATE book SET book_id= 98 where book_id=2;
Query OK, 1 row affected (0.09 sec)
Rows matched: 1 Changed: 1 Warnings: 0
```

```
mysql> UPDATE book SET book_id= 97 where book_id=3;
Query OK, 1 row affected (0.08 sec)
Rows matched: 1 Changed: 1 Warnings: 0
```

```
mysql> UPDATE book SET language_id = 97 where language_id=3;
ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails
(`library`.`book`, CONSTRAINT `c2` FOREIGN KEY (`language_id`) REFERENCES `language`
(`lang_id`))
```

```
mysql> SELECT * FROM book;
```

book_id	title	language_id	mrp	published_id	published_date	volume	status
97	python	3	2999	3	2022-02-01	3	avil
98	c	2	2999	2	2022-02-01	2	avil
99	java	1	2999	1	2022-02-01	1	avil

3 rows in set (0.00 sec)

