

2.

```
Setting environment for using XAMPP for Windows.
Nonpitch@LAPTOP-PJ5S2KUI c:\xampp
# mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 8
Server version: 10.4.32-MariaDB mariadb.org binary distribution

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Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> SHOW DATABASES;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| phpmyadmin |
| test |
+-----+
5 rows in set (0.002 sec)
```

3.

```
MariaDB [(none)]> CREATE DATABASE conference
-> DEFAULT CHARACTER SET utf8
-> DEFAULT COLLATE utf8_general_ci;
Query OK, 1 row affected (0.052 sec)
```

4.

```
MariaDB [(none)]> USE conference
Database changed
MariaDB [conference]> CREATE TABLE IF NOT EXISTS `tb_account` (
-> `id` int(11) NOT NULL AUTO_INCREMENT,
-> `email` text NOT NULL,
-> `password` text NOT NULL,
-> `code` text NOT NULL,
-> `title_name` text NOT NULL,
-> `first_name` text NOT NULL,
-> `middle_name` text,
-> `last_name` text NOT NULL,
-> `address` text,
-> `city` text,
-> `postal_code` text,
-> `country` text NOT NULL,
-> PRIMARY KEY (`id`)
-> );
Query OK, 0 rows affected (0.060 sec)
```

7.

```
MariaDB [conference]> CREATE TABLE IF NOT EXISTS tb_paper (
-> id int(11) NOT NULL AUTO_INCREMENT,
-> account_id int(11) NOT NULL,
-> created timestamp NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP,
-> modified timestamp NULL DEFAULT CURRENT_TIMESTAMP,
-> category int(11) NOT NULL,
-> title text NOT NULL,
-> author text NOT NULL,
-> present int(11) NOT NULL,
-> correspond int(11) NOT NULL,
-> emailcorr text NOT NULL,
-> abstract text NOT NULL,
-> status int(11) NOT NULL,
-> PRIMARY KEY (id)
-> );
Query OK, 0 rows affected (0.059 sec)
```

8.

```
MariaDB [conference]> ALTER TABLE tb_paper CHANGE _id paper_id int(11);
Query OK, 0 rows affected (0.058 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

9.

```
MariaDB [conference]> ALTER TABLE tb_paper ADD PRIMARY KEY (account_id);
ERROR 1068 (42000): Multiple primary key defined
MariaDB [conference]>
```

ANS: Utilizing the ALTER TABLE command to add a primary key ensures that every row within the table possesses a distinct identifier and cannot be devoid of a value.

10.

```
MariaDB [conference]> ALTER TABLE tb_paper DROP PRIMARY KEY, ADD PRIMARY KEY(paper_id, account_id);
Query OK, 0 rows affected (0.030 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

ANS: This SQL command updates the unique identification of data in the "tb_paper" table, replacing the former single ID with a new combination of "paper_id" and "account_id".

11.

```
MariaDB [conference]> SHOW COLUMNS from tb_account;
```

Field	Type	Null	Key	Default	Extra
account_id	int(11)	NO	PRI	NULL	
email	text	NO		NULL	
password	text	NO		NULL	
code	text	NO		NULL	
title_name	text	NO		NULL	
first_name	text	NO		NULL	
middle_name	text	YES		NULL	
last_name	text	NO		NULL	
address	text	YES		NULL	
city	text	YES		NULL	
postal_code	text	YES		NULL	
country	text	NO		NULL	

12 rows in set (0.058 sec)

12.

```
MariaDB [conference]> SHOW COLUMNS from tb_paper;
```

Field	Type	Null	Key	Default	Extra
paper_id	int(11)	NO	PRI	NULL	
account_id	int(11)	NO	PRI	NULL	
created	timestamp	YES		current_timestamp()	on update current_timestamp()
modified	timestamp	YES		current_timestamp()	
category	int(11)	NO		NULL	
title	text	NO		NULL	
author	text	NO		NULL	
present	int(11)	NO		NULL	
correspond	int(11)	NO		NULL	
emailcorr	text	NO		NULL	
abstract	text	NO		NULL	
status	int(11)	NO		NULL	

12 rows in set (0.060 sec)

13.

```
MariaDB [conference]> ALTER TABLE tb_paper DROP COLUMN modified;
Query OK, 0 rows affected (0.062 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [conference]> ALTER TABLE tb_paper DROP COLUMN present;
Query OK, 0 rows affected (0.011 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [conference]> ALTER TABLE tb_paper DROP COLUMN correspond;
Query OK, 0 rows affected (0.061 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

14.

```
MariaDB [conference]> ALTER TABLE tb_paper MODIFY status Boolean NOT NULL;
Query OK, 0 rows affected (0.080 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

15.

```
MariaDB [conference]> SHOW COLUMNS from tb_paper;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default      | Extra |
+-----+-----+-----+-----+-----+-----+
| paper_id   | int(11)   | NO   | PRI | NULL         |       |
| account_id | int(11)   | NO   |     | NULL         |       |
| created    | timestamp | YES  |     | current_timestamp() |       |
| category   | int(11)   | NO   |     | NULL         |       |
| title      | text      | NO   |     | NULL         |       |
| author     | text      | NO   |     | NULL         |       |
| emailcorr  | text      | NO   |     | NULL         |       |
| abstract   | text      | NO   |     | NULL         |       |
| status     | tinyint(1) | NO   |     | NULL         |       |
+-----+-----+-----+-----+-----+-----+
9 rows in set (0.027 sec)
```

ANS: A tinyint in SQL can be likened to a boolean, as it usually signifies a small integer primarily employed for storing binary data.

16.

```
MariaDB [conference]> SHOW COLUMNS from tb_paper;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default      | Extra |
+-----+-----+-----+-----+-----+-----+
| paper_id   | int(11)   | NO   | PRI | NULL         |       |
| account_id | int(11)   | NO   |     | NULL         |       |
| created    | timestamp | YES  |     | current_timestamp() |       |
| category   | int(11)   | NO   |     | NULL         |       |
| title      | text      | NO   |     | NULL         |       |
| author     | text      | NO   |     | NULL         |       |
| emailcorr  | text      | NO   |     | NULL         |       |
| abstract   | text      | NO   |     | NULL         |       |
| comment    | varchar(60) | YES  |     | NULL         |       |
| status     | tinyint(1) | NO   |     | NULL         |       |
+-----+-----+-----+-----+-----+-----+
10 rows in set (0.022 sec)
```

ANS: Use to change the structure of the table of tb_paper.

17.

```
MariaDB [conference]> CREATE TABLE IF NOT EXISTS `tb_category` (
  -> category_id int(11) NOT NULL AUTO_INCREMENT,
  -> category text NOT NULL,
  -> PRIMARY KEY (category_id)
  -> );
Query OK, 0 rows affected (0.020 sec)

MariaDB [conference]> SHOW COLUMNS from tb_category;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default      | Extra |
+-----+-----+-----+-----+-----+-----+
| category_id | int(11)   | NO   | PRI | NULL         | auto_increment |
| category    | text      | NO   |     | NULL         |               |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.024 sec)
```

18.

```
MariaDB [conference]> INSERT INTO tb_category (category)
-> VALUES ('ABC'),
->         ('Chemistry'),
->         ('Biology'),
->         ('Physics'),
->         ('Mathematics'),
->         ('Computing and Information Technology');
Query OK, 6 rows affected (0.010 sec)
Records: 6 Duplicates: 0 Warnings: 0
```

19.

```
MariaDB [conference]> SELECT * FROM tb_category;
+-----+-----+
| category_id | category |
+-----+-----+
| 1 | ABC |
| 2 | Chemistry |
| 3 | Biology |
| 4 | Physics |
| 5 | Mathematics |
| 6 | Computing and Information Technology |
+-----+-----+
6 rows in set (0.001 sec)
```

20.

```
MariaDB [conference]> SHOW COLUMNS from tb_paper;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| paper_id | int(11) | NO | PRI | NULL | |
| account_id | int(11) | NO | | NULL | |
| created | timestamp | YES | | current_timestamp() | |
| category | int(11) | NO | MUL | NULL | |
| title | text | NO | | NULL | |
| author | text | NO | | NULL | |
| emailcorr | text | NO | | NULL | |
| abstract | text | NO | | NULL | |
| comment | varchar(60) | YES | | NULL | |
| status | tinyint(1) | NO | | NULL | |
+-----+-----+-----+-----+-----+-----+
```

21.

```
MariaDB [conference]> ALTER TABLE tb_paper ADD FOREIGN KEY (account_id) REFERENCES tb_account(account_id);
Query OK, 0 rows affected (0.051 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
MariaDB [conference]> SHOW COLUMNS from tb_paper;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| paper_id | int(11) | NO | PRI | NULL | |
| account_id | int(11) | NO | MUL | NULL | |
| created | timestamp | YES | | current_timestamp() | |
| category | int(11) | NO | MUL | NULL | |
| title | text | NO | | NULL | |
| author | text | NO | | NULL | |
| emailcorr | text | NO | | NULL | |
| abstract | text | NO | | NULL | |
| comment | varchar(60) | YES | | NULL | |
| status | tinyint(1) | NO | | NULL | |
+-----+-----+-----+-----+-----+-----+
10 rows in set (0.018 sec)
```

22.

```
MariaDB [conference]> SELECT COLUMN_NAME, CONSTRAINT_NAME, REFERENCED_COLUMN_NAME, REFERENCED_TABLE_NAME
-> FROM information_schema.KEY_COLUMN_USAGE
-> WHERE TABLE_NAME = 'tb_paper';
```

COLUMN_NAME	CONSTRAINT_NAME	REFERENCED_COLUMN_NAME	REFERENCED_TABLE_NAME
paper_id	PRIMARY	NULL	NULL
account_id	PRIMARY	NULL	NULL
category	tb_paper_ibfk_1	category_id	tb_category
account_id	tb_paper_ibfk_2	account_id	tb_account

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

ANS: The SQL query retrieves information about foreign key constraints utilized in the 'tb_paper' table, including the name of the constraint.

23.

```
MariaDB [conference]> ALTER TABLE tb_paper
-> DROP FOREIGN KEY tb_paper_ibfk_2,
-> ADD CONSTRAINT `fk_account_id` FOREIGN KEY (`account_id`) REFERENCES `tb_account` (`account_id`);
Query OK, 0 rows affected (0.050 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

24.

```
MariaDB [conference]> SELECT COLUMN_NAME, CONSTRAINT_NAME, REFERENCED_COLUMN_NAME, REFERENCED_TABLE_NAME
-> FROM information_schema.KEY_COLUMN_USAGE
-> WHERE TABLE_NAME = 'tb_paper';
```

COLUMN_NAME	CONSTRAINT_NAME	REFERENCED_COLUMN_NAME	REFERENCED_TABLE_NAME
paper_id	PRIMARY	NULL	NULL
account_id	PRIMARY	NULL	NULL
account_id	fk_account_id	account_id	tb_account
category	tb_paper_ibfk_1	category_id	tb_category

```
4 rows in set (0.003 sec)
```

ANS: It change the CONSTRAINT_NAME of the table.

25.

```
MariaDB [conference]> INSERT INTO tb_account (account_id, email, password, code, title_name, first_name, middle_name, last_name, address, city, postal_code, country)
-> VALUES (1, 'nonpitch@gmail.com', 'npacc', '3428', 'Mr.', 'Pitchayapat', 'N', 'Wareevanich', '22 Soi Ladprao', 'BKK', '10900', 'Thailand');
Query OK, 1 row affected (0.003 sec)

MariaDB [conference]> INSERT INTO tb_paper (paper_id, account_id, created, category, title, author, emailcorr, abstract, comment, status)
-> VALUES (1, 1, NOW(), 1, 'Sample Paper', 'Non Pitch', 'nonpitch@gmail.com', 'comment here.', 'status here.', 1);
Query OK, 1 row affected (0.010 sec)

MariaDB [conference]> SELECT * FROM tb_account;
```

account_id	email	password	code	title_name	first_name	middle_name	last_name	address	city	postal_code	country
1	nonpitch@gmail.com	npacc	3428	Mr.	Pitchayapat	N	Wareevanich	22 Soi Ladprao	BKK	10900	Thailand

```
1 row in set (0.001 sec)
```

27.

```
MariaDB [conference]> DROP DATABASE conference;
Query OK, 3 rows affected (0.039 sec)

MariaDB [(none)]>
```