Chennai Mathematical Institute

RDBMS and SQL

Tutorial 1

1. MySQL Commands

1.1. Creating Database or Table.

- `create database tutorial1;`
- `use tutorial1;`
- `create table students(roll_num int, f_name varchar(20), grade varchar(2), p_money int);`
- `show tables;`

1.2. Populating Table.

- `insert into students values('01', 'Harry Potter', 'AB', 'pass');`
- `insert into students values(002, 'Ginny Weawsley', 'A', 'pass');`
- `insert into students values(3, 'Fred Weasley', 'F', 'fail');`
- `insert into students values(4, 'DRACO MALFOY', 'F', 'fail');`
- `insert into students values(4, 'DRACO MALFOY', 'F', 'fail');`

roll_num	f_name	grade	results
1	Harry Potter	AB	pass
2	Ginny Weawsley	A	pass
3	Fred Weasley	F	fail
4	DRACO MALFOY	F	fail
4	DRACO MALFOY	F	fail

Figure 1. Output after populating table

Note:

(1) The field `roll_num` outputs only the integer values entered, irrespective of quote marks(‘ ’) or preceding zeroes(`0`).
(2) MySQL outputs duplicate entries- like for `roll_num = 4`, unless specified with some constraints such as `primary key`. (We will discuss this in later tutorials.)

1.3. **Viewing Table.** We can view the entire table, or some part of it by using the following commands:

- `select * from students;`
- `select f_name, grade from students;`

1.4. **Table Data Import Wizard.** Next, we imported a table from an existing .csv file in our local system using the `Table Data Import Wizard`.

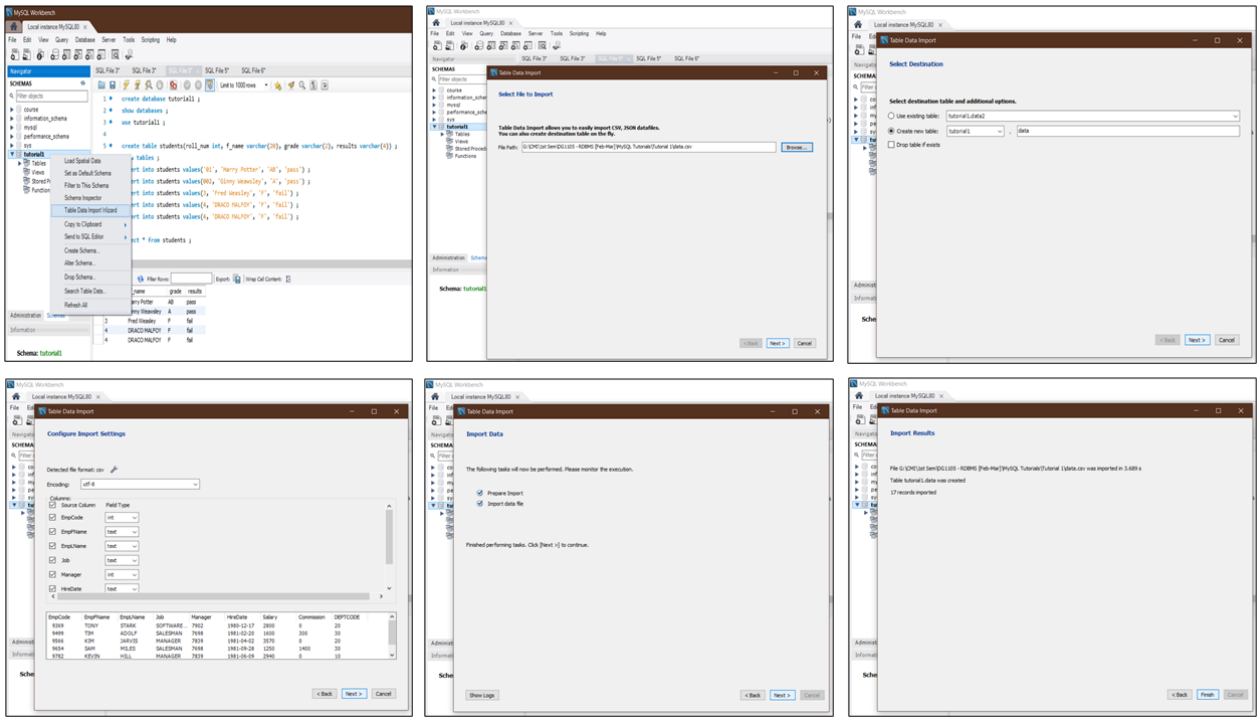

FIGURE 2. Table Data Import Wizard

1.5. **Querying Table.**

- `select concat(empfname, ' ', emplname) as 'name' from data;`
- `select * from data where salary > 3000;`
- `select concat(empfname, ' ', emplname) as 'name', job from data where job = 'analyst';`

Note:

(1) MySQL is case-agnostic, so `empfname` and `EmpFName` are treated equivalently.
(2) We can use the `concat` keyword to display entries from two different fields together.

1.6. **Updating Table.**

- `update data set commission = 1000 where empfname = 'kim' and emplname = 'jarvis';`
- `update data set commission = commission + 100;`
- `update data set empfname = 'pepper' where empfname = 'tony';`

A doubt was raised in class asking whether we could change just the year (or month or day) in the `HireDate` field without changing the entire date.

The answer is yes, we can do that, given that the field type of `HireDate` is already (or changed to, as in this case) in `DateTime` format. If it is in the desired format, we use the following command:

- `update data set hiredate = date_format(hiredate,'1981-%m-%d') where empfname = 'tony';`

1.7. **Deleting Entries or Table or Database.**

- `delete from data where commission = 200;`
- `drop table data;`
- `drop database tutorial1;`

Endnote: Practice makes perfect. Have fun with MySQL!