

MYSQL DDL Assignment 1

Que.1. Login to MySQL and view all databases already present. You should get following result :

Ans: mysql> show databases;

```
+-----+  
| Database |  
+-----+  
| company |  
| information_schema |  
| mysql |  
| performance_schema |  
| sys |  
+-----+  
5 rows in set (0.07 sec)
```

Que.2. Write an SQL statement to create a simple table countries including columns

country_id, country_name and region_id. After this display the structure of table as below :

Ans: mysql> create table countries(country_id INT,
-> country_name VARCHAR(50),
-> region_id INT);

Query OK, 0 rows affected (0.06 sec)

mysql> desc countries;

```
+-----+-----+-----+-----+-----+  
| Field      | Type       | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+  
| country_id | int        | YES  |     | NULL    |       |  
| country_name | varchar(50) | YES  |     | NULL    |       |  
| region_id   | int        | YES  |     | NULL    |       |  
+-----+-----+-----+-----+-----+  
3 rows in set (0.02 sec)
```

Que.3. Write an SQL statement to create a table named jobs including columns job_id, job_title, min_salary, max_salary and check whether the max_salary amount exceeding the upper limit 25000. Also set job_id as primary key and entering null values for job_title is not allowed.

Ans: mysql> create table jobs(job_id INT PRIMARY KEY,
-> job_title VARCHAR(50) NOT NULL,
-> min_salary INT,
-> max_salary INT CHECK (max_salary <= 25000)
->);

Query OK, 0 rows affected (0.04 sec)

mysql> desc jobs;

```
+-----+-----+-----+-----+-----+  
| Field      | Type       | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+  
| job_id     | int        | NO   | PRI | NULL    |       |  
| job_title  | varchar(50) | NO   |     | NULL    |       |  
| min_salary | int        | YES  |     | NULL    |       |  
| max_salary | int        | YES  |     | NULL    |       |  
+-----+-----+-----+-----+-----+
```

```
4 rows in set (0.00 sec)
```

Que.4. Write a SQL statement to create a table named job_histry including columns employee_id, start_date, end_date, job_id and department_id

```
Ans: mysql> create table job_histry(    employee_id INT,
->      start_date DATE,
->      end_date DATE,
->      job_id INT,
->      department_id INT
-> );
Query OK, 0 rows affected (0.04 sec)
```

Que.5. Write an SQL statement to alter a table named countries to make sure that no duplicate data against column country_id will be allowed at the time of insertion.

```
Ans: mysql> alter table countries
-> ADD CONSTRAINT unique_country_id UNIQUE (country_id);
Query OK, 0 rows affected (0.03 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

Que.6. Write an SQL statement to create a table named jobs including columns job_id, job_title, min_salary and max_salary, and make sure that, the default value for job_title is blank and min_salary is 8000 and max_salary is NULL will be entered automatically at the time of insertion if no value assigned for the specified columns.

```
Ans: mysql> create table job( job_id      INT PRIMARY KEY,
->      job_title   VARCHAR(50) DEFAULT '',
->      min_salary  INT DEFAULT 8000,
->      max_salary  INT DEFAULT NULL);
Query OK, 0 rows affected (0.03 sec)
```

Que.7. Create a Department table with following structure

```
Ans: mysql> create table department
-> ( department_id  DECIMAL(4,0) NOT NULL DEFAULT 0,
->     department_name VARCHAR(30)  NOT NULL,
->     manager_id      DECIMAL(6,0) NOT NULL DEFAULT 0,
->     location_id     DECIMAL(4,0) DEFAULT NULL,
->     PRIMARY KEY (department_id, manager_id)
-> );
Query OK, 0 rows affected (0.03 sec)
```

```
mysql> desc department;
+-----+-----+-----+-----+-----+
| Field        | Type          | Null | Key  | Default | Extra |
+-----+-----+-----+-----+-----+
| department_id | decimal(4,0) | NO   | PRI  | 0       |       |
| department_name | varchar(30) | NO   |       | NULL    |       |
| manager_id    | decimal(6,0) | NO   | PRI  | 0       |       |
| location_id   | decimal(4,0) | YES  |       | NULL    |       |
```

```
+-----+-----+-----+-----+
4 rows in set (0.01 sec)
```

Que.8. Write an SQL statement to create a table employees including columns employee_id, first_name, last_name, email, phone_number hire_date, job_id, salary, commission, manager_id and department_id and make sure that, the employee_id column does not contain any duplicate value at the time of insertion and the foreign key columns combined by department_id and manager_id columns contain only those unique combination values, which combinations are exists in the departments table.

Ans:

```
mysql> create table employees
-> (
->     employee_id      INT NOT NULL,
->     first_name        VARCHAR(30),
->     last_name         VARCHAR(30),
->     email             VARCHAR(50),
->     phone_number      VARCHAR(20),
->     hire_date         DATE,
->     job_id            VARCHAR(10),
->     salary            DECIMAL(8,2),
->     commission        DECIMAL(4,2),
->     manager_id        DECIMAL(6,0),
->     department_id     DECIMAL(4,0),
->
->     PRIMARY KEY (employee_id),
->
->     FOREIGN KEY (department_id, manager_id)
->         REFERENCES department(department_id, manager_id)
-> );
Query OK, 0 rows affected (0.05 sec)
```

```
mysql> desc employees;
```

Field	Type	Null	Key	Default	Extra
employee_id	int	NO	PRI	NULL	
first_name	varchar(30)	YES		NULL	
last_name	varchar(30)	YES		NULL	
email	varchar(50)	YES		NULL	
phone_number	varchar(20)	YES		NULL	
hire_date	date	YES		NULL	
job_id	varchar(10)	YES		NULL	
salary	decimal(8,2)	YES		NULL	
commission	decimal(4,2)	YES		NULL	
manager_id	decimal(6,0)	YES		NULL	
department_id	decimal(4,0)	YES	MUL	NULL	

```
11 rows in set (0.00 sec)
```