1. Login to MySQL and view all databases already present. You should get

following result :

show databases;

+--------------------+

| Database |

+--------------------+

| assignment1 |

| information\_schema |

| may2025batch |

| mydatabase |

| mysql |

| performance\_schema |

| sakila |

| sys |

| world |

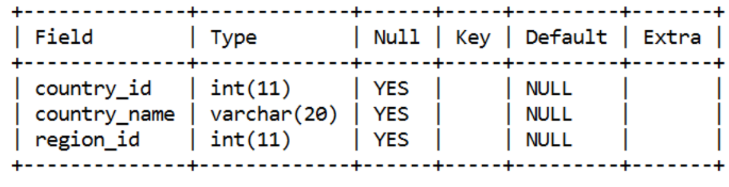
+--------------------+

9 rows in set (0.01 sec)

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 :



mysql> create table countryy(country\_id int(11), country\_name varchar(20), region\_id int(11));

Query OK, 0 rows affected, 2 warnings (0.14 sec)

mysql> show tables;

+-----------------------+

| Tables\_in\_assignment1 |

+-----------------------+

| country |

| countryy |

| jobs |

+-----------------------+

3 rows in set (0.02 sec)

mysql> desc countryy;

+--------------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+--------------+-------------+------+-----+---------+-------+

| country\_id | int | YES | | NULL | |

| country\_name | varchar(20) | YES | | NULL | |

| region\_id | int | YES | | NULL | |

+--------------+-------------+------+-----+---------+-------+

3 rows in set (0.02 sec)

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.

create table job

-> (job\_id int primary key,

-> job\_title varchar(20) not null,

-> min\_salary decimal(7,2),

-> max\_salary decimal(7,2));

Query OK, 0 rows affected (0.07 sec)

mysql> desc job;

+------------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+------------+--------------+------+-----+---------+-------+

| job\_id | int | NO | PRI | NULL | |

| job\_title | varchar(20) | NO | | NULL | |

| min\_salary | decimal(7,2) | YES | | NULL | |

| max\_salary | decimal(7,2) | YES | | NULL | |

+------------+--------------+------+-----+---------+-------+

4 rows in set (0.02 sec)

mysql> alter table job

-> add constraint check(max\_salary>25000);

Query OK, 0 rows affected (0.11 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> desc job;

+------------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+------------+--------------+------+-----+---------+-------+

| job\_id | int | NO | PRI | NULL | |

| job\_title | varchar(20) | NO | | NULL | |

| min\_salary | decimal(7,2) | YES | | NULL | |

| max\_salary | decimal(7,2) | YES | | NULL | |

+------------+--------------+------+-----+---------+-------+

4 rows in set (0.02 sec)

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

mysql> create table jon\_histry

-> (employee\_id int,

-> start\_date date,

-> end\_date date,

-> job\_id int,

-> department\_id int);

Query OK, 0 rows affected (0.03 sec)

mysql> desc jon\_histry;

+---------------+------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+---------------+------+------+-----+---------+-------+

| employee\_id | int | YES | | NULL | |

| start\_date | date | YES | | NULL | |

| end\_date | date | YES | | NULL | |

| job\_id | int | YES | | NULL | |

| department\_id | int | YES | | NULL | |

+---------------+------+------+-----+---------+-------+

5 rows in set (0.00 sec)

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.

mysql> alter table countryy

-> add constraint unique(country\_id);

Query OK, 0 rows affected (0.04 sec)

Records: 0 Duplicates: 0 Warnings: 0

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.

create table jobss

-> (job\_id int ,

-> job\_title varchar(20) default ' ',

-> min\_salary decimal(7,2) default 8000,

-> max\_salary decimal(7,2) default NULL);

Query OK, 0 rows affected (0.06 sec)

mysql> desc jobss;

+------------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+------------+--------------+------+-----+---------+-------+

| job\_id | int | YES | | NULL | |

| job\_title | varchar(20) | YES | | | |

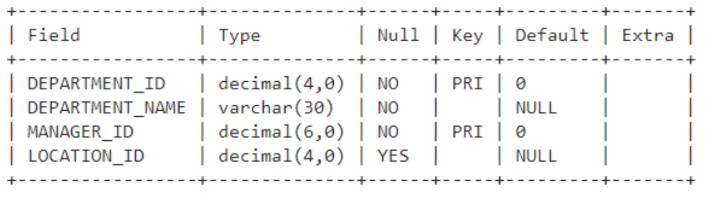
| min\_salary | decimal(7,2) | YES | | 8000.00 | |

| max\_salary | decimal(7,2) | YES | | NULL | |

+------------+--------------+------+-----+---------+-------+

4 rows in set (0.00 sec)

7. Create a Department table with following structure



CREATE TABLE department

-> (department\_id DECIMAL(4,0) NOT NULL DEFAULT 0,

-> department\_name varchar(30) NOT NULL DEFAULT '',

-> 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 (0.05 sec)

mysql> desc department;

+-----------------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-----------------+--------------+------+-----+---------+-------+

| department\_id | decimal(4,0) | NO | PRI | 0 | |

| department\_name | varchar(30) | NO | | | |

| manager\_id | decimal(6,0) | NO | PRI | 0 | |

| location\_id | decimal(4,0) | YES | | NULL | |

+-----------------+--------------+------+-----+---------+-------+

4 rows in set (0.00 sec)

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.

create table departments

-> ( department\_id DECIMAL(4,0) NOT NULL,

-> department\_name VARCHAR(30) NOT NULL,

-> manager\_id DECIMAL(6,0) NOT NULL,

-> location\_id DECIMAL(4,0),

-> PRIMARY KEY (department\_id, manager\_id) -- composite primary key

-> );

Query OK, 0 rows affected (0.05 sec)

mysql> desc departments;

+-----------------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-----------------+--------------+------+-----+---------+-------+

| department\_id | decimal(4,0) | NO | PRI | NULL | |

| department\_name | varchar(30) | NO | | NULL | |

| manager\_id | decimal(6,0) | NO | PRI | NULL | |

| location\_id | decimal(4,0) | YES | | NULL | |

+-----------------+--------------+------+-----+---------+-------+

4 rows in set (0.02 sec)

mysql> CREATE TABLE employees (

-> employee\_id INT UNIQUE,

-> first\_name VARCHAR(20),

-> last\_name VARCHAR(20),

-> email VARCHAR(20),

-> phone\_number VARCHAR(20),

-> hire\_date DATE,

-> job\_id INT,

-> salary DECIMAL(7,2),

-> commission DECIMAL(7,2),

-> manager\_id DECIMAL(6,0),

-> department\_id DECIMAL(4,0),

->

-> FOREIGN KEY (department\_id, manager\_id)

-> REFERENCES department(department\_id, manager\_id)

-> );

Query OK, 0 rows affected (0.08 sec)