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Employee Id: - 11946

MYSQL

LAB ACTIVITY - 3

1. Write a SQL statement to rename the table countries to country_new.

```
/sql> create table countries (
   -> country_id int(5) NOT NULL,
   -> country_name varchar(10),
   -> region_id decimal(4,0)
-> );
-> );
Query OK, 0 rows affected, 1 warning (0.04 sec)
mysql> show tables;
  Tables_in_s
  countries
  row in set (0.00 sec)
mysql> desc countries;
                                             | Null | Key | Default | Extra
                      | Type
  country_id | int | NO
country_name | varchar(10) | YES
region_id | decimal(4,0) | YES
                                                                  NULL
NULL
  rows in set (0.00 sec)
mysql> alter table countries rename country_new;
Query OK, 0 rows affected (0.03 sec)
mysql> show tables;
  Tables_in_s |
  country_new |
  row in set (0.00 sec)
```

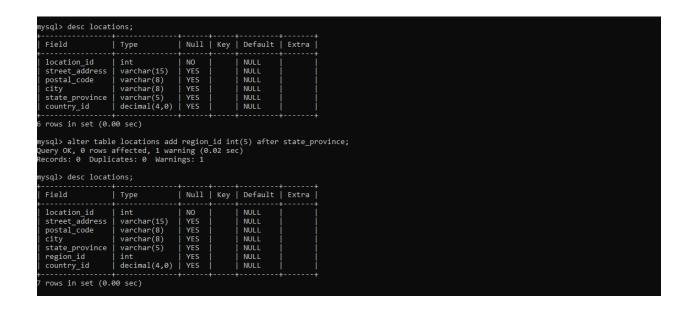
2. Write a SQL statement to add a column region_id to the table locations.

```
ysql> desc locations;
                              Type
                                                        | Null | Key | Default | Extra |
   location_id
                                varchar(15)
varchar(8)
varchar(8)
varchar(5)
decimal(4,0)
  street_address
postal_code
                                                          YES
YES
                                                                                  NULL
NULL
  city
state_province
country_id
                                                          YES
YES
                                                                                  NULL
NULL
                                                                                  NULL
  rows in set (0.00 sec)
mysql> alter table locations add region_id int(5) after state_province;
Query OK, 0 rows affected, 1 warning (0.02 sec)
Records: 0 Duplicates: 0 Warnings: 1
  ysql> desc locations;
                                                       | Null | Key | Default | Extra |
                                                                                  NULL
NULL
   location_id
                                varchar(15)
varchar(8)
varchar(8)
varchar(5)
int
decimal(4,0)
  street_address
postal_code
city
state_province
                                                                                 NULL
NULL
                                                                                  NULL
NULL
  region_id
country_id
   rows in set (0.00 sec)
```

3. Write a SQL statement to add a columns ID as the first column of the table locations.

```
ysql> desc locations;
                                                             Null | Key | Default | Extra
  location_id
street_address
postal_code
                                  varchar(15)
varchar(8)
varchar(8)
varchar(5)
                                                              YES
YES
YES
YES
                                                                                      NULL
NULL
   city
state_province
                                                                                      NULL
NULL
                                                                                      NULL
   region_id
   country_id
                                  decimal(4,0)
   rows in set (0.00 sec)
mysql> alter table locations add ID int(5) FIRST;
Query OK, 0 rows affected, 1 warning (0.01 sec)
Records: 0 Duplicates: 0 Warnings: 1
  ysql> DESC locations;
                                                           | Null | Key | Default | Extra |
                                 int
int
varchar(15)
varchar(8)
varchar(8)
varchar(5)
int
   location_id
street_address
postal_code
city
state_province
                                                                                      NULL
NULL
                                                                                      NULL
NULL
NULL
NULL
NULL
                                  int
decimal(4,0)
   region_id
country_id
   rows in set (0.00 sec)
```

4. Write a SQL statement to add a column region_id after state_province to the table locations.



5. Write a SQL statement change the data type of the column country_id to integer in the table locations.

6. Write a SQL statement to drop the column city from the table locations.

```
mysql> desc locations;
  Field
                                                   Null | Key | Default | Extra |
                           | Type
                             int
int
                                                                          NULL
NULL
  location_id
street_address
                             varchar(15)
varchar(8)
varchar(8)
varchar(5)
                                                    YES
YES
YES
  postal_code
  city
state_province
                                                                          NULL
  region_id
country_id
                                                                          NULL
  rows in set (0.00 sec)
mysql> alter table locations drop city;
Query OK, 0 rows affected (0.01 sec)
Records: 0 Duplicates: 0 Warnings: 0
mysql> desc locations;
                                                  | Null | Key | Default | Extra |
  Field
                             Type
  location_id
street_address
postal_code
                                                    NO
YES
YES
                                                                          NULL
NULL
                             varchar(15)
varchar(8)
  state_province
region_id
country_id
                                                    YES
YES
YES
                              int
                                                                          NULL
  rows in set (0.00 sec)
```

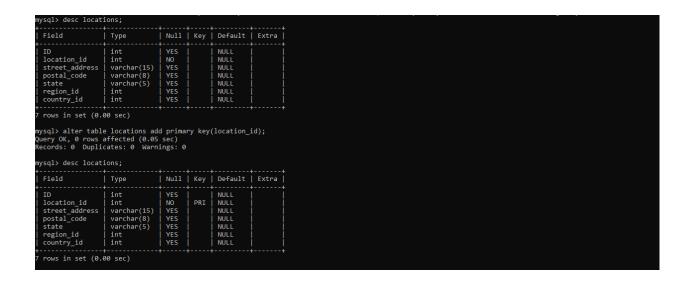
7. Write a SQL statement to change the name of the column state_province to state, keeping the data type and size same.

	Туре			Default	
ID	int	YES		NULL	
location_id	int	NO		NULL	
street_address postal code	varchar(15) varchar(8)	YES YES		NULL NULL	
state province	varchar(5)	YES		NULL	
region_id	int	YES		NULL	
	int	YES		NULL	
ql> alter table	e locations dr affected (0.01	sec)		ince,ADD s	tate var
rows in set (0.0 ysql> alter table uery OK, 0 rows a ecords: 0 Duplic ysql> desc locati	e locations dr affected (0.01 cates: 0 Warn	sec) ings: 0			
ysql> alter table uery OK, 0 rows a ecords: 0 Duplio ysql> desc locati	e locations draffected (0.01 cates: 0 Warn ions;	sec) ings: 0 + Null +	+ Key	+ Default +	
ysql> alter table uery OK, 0 rows a ecords: 0 Duplic ysql> desc locati Field ID location_id	e locations dr affected (0.01 ates: 0 Warn ions; Type int int	sec) ings: 0	+ Key	+ Default	
ysql> alter table uery OK, 0 rows a ecords: 0 Duplic ysql> desc locats Field	e locations draffected (0.01 affected (0.01 ates: 0 Warn ions; Type int int varchar(15)	sec) ings: 0 + Null + YES NO YES	+ Key	Default NULL NULL	
ysql> alter table uery OK, 0 rows a ecords: 0 Duplic ysql> desc locati Field ID location_id street_address postal_code	e locations draffected (0.01 affected (0.01 cates: 0 Warn lons; Type int int int varchar(15) varchar(8)	sec) ings: 0 + Null + YES NO YES YES	+ Key	Default NULL NULL NULL NULL	
ysql> alter table uery OK, 0 rows a ecords: 0 Duplic ysql> desc locats Field	e locations draffected (0.01 affected (0.01 ates: 0 Warn ions; Type int int varchar(15)	sec) ings: 0 + Null + YES NO YES	+ Key	Default NULL NULL	

8. Write a SQL statement to add a primary key for the columns location_id in the locations table.

Here is the sample table employees.

Sample table: employees



9. Write a SQL statement to add a primary key for a combination of columns location_id and country_id.

```
mysql> desc locations;
                              Type
                                                   | Null | Key | Default | Extra
   location_id
  street_address
postal_code
                              varchar(15)
varchar(8)
varchar(5)
                                                    YES
YES
YES
                                                                          NULL
NULL
  state
region_id
country_id
                                                                          NULL
  rows in set (0.00 sec)
mysql> alter table locations add primary key(location_id,country_id);
Query OK, 0 rows affected (0.17 sec)
Records: 0 Duplicates: 0 Warnings: 0
mysql> desc locations;
  Field
                                                  | Null | Key | Default | Extra
                                                                          NULL
NULL
NULL
                              int
  location_id
street_address
postal_code
state
region_id
                                                    NO
YES
YES
YES
YES
                                                                 PRI
                              int
                              varchar(15)
varchar(8)
varchar(5)
                                                                          NULL
  country_id
  rows in set (0.00 sec)
```

10. Write a SQL statement to drop the existing primary from the table locations on a combination of columns location_id and country_id.

```
nysql> desc locations;
                                                   Null | Key |
  Field
                                                                        Default | Extra |
                                                    NO
YES
YES
YES
YES
NO
   location_id
  street_address
postal_code
                              varchar(15)
varchar(8)
                                                                        NULL
NULL
NULL
  state
region_id
country_id
                              varchar(5)
                              int
int
                                                                         NULL
  rows in set (0.00 sec)
mysql> alter table locations drop primary key;
Query OK, 0 rows affected (0.06 sec)
Records: 0 Duplicates: 0 Warnings: 0
mysql> desc locations;
                                                   Null | Key | Default | Extra |
                           | Type
  ID
                                                                         NULL
  location_id
street_address
postal_code
                                                    NO
YES
YES
YES
YES
                              int
                              varchar(15)
varchar(8)
varchar(5)
                              int
int
                                                                         NULL
NULL
  region_id
  country_id
                                                    NO
  rows in set (0.00 sec)
```

11. Write a SQL statement to add a foreign key on job_id column of job_history table referencing to the primary key job_id of jobs table.

```
ysql> desc job_history
                          | Type | Null | Key | Default | Extra
  Field
  employee_id
start_date
hire_date
  employee_1d | Int | NO
start_date | date | YES
hire_date | date | YES
job_id | int | NO
department_id | int | NO
                                                              NULL
NULL
  rows in set (0.00 sec)
 ysql> desc jobs;
  Field Type
  job_id | int | NO
job_title | varchar(35) | NO
min_salary | decimal(6,0) | YES
max_salary | decimal(6,0) | YES
                                                                      NULL
NULL
NULL
  rows in set (0.00 sec)
mysql> alter table job_history add foreign key(job_id) REFERENCES jobs(job_id);
Query OK, 0 rows affected (0.07 sec)
Records: 0 Duplicates: 0 Warnings: 0
 ysql> desc job_history;
                  | Type | Null | Key | Default | Extra |
                         int NO date YES date YES int NO int NO
   employee_id
                                                              NULL
NULL
NULL
  start_date
hire_date
   rows in set (0.00 sec)
```

12. Write a SQL statement to add a foreign key constraint named fk_job_id on job_id column of job_history table referencing to the primary key job_id of jobs table.

13. Write a SQL statement to drop the existing foreign key fk_job_id from job_history table on job_id column which is referencing to the job_id of jobs table.

mysql> alter table job_history drop foreign key fk_job_id; Query OK, 0 rows affected (0.01 sec) Records: 0 Duplicates: 0 Warnings: 0																					
	ysql> show index from job_history;																				
Table Expre	·i	+ Non_unique Key 		Key_nam	y_name Seq_in_		Column_nam	ne Col	lation	Cardir	nality	Sub	_part	Packed	Null	Index	_type	Comment	Index_co	omment \	
job_his job_his NULL	tory			fk_job_	id		job_id		ı		0		NULL	NULL		BTREE				13	/ES
1 row in set (0.00 sec)																					
mysql> desc job_history;																					
Field					Default																
employe start_d hire_da job_id departm	ee_id date ate	int date date int	NO YES YES NO NO	 MUL	NULL NULL NULL NULL		† - - -														
to the state of th																					
Table Table		nique	Key_n	ame Se	q_in_index	Colum	n_name Col	llation	Cardin	nality	Sub_pa	rt	Packed	Null	Index_	type	Comment	Index	_comment	Visible	Exp
 jobs L		0	PRIMA	RY		job_i	d A			0	NU	JLL	NULL		BTREE			ı		YES	NUL
1 now in		04				-+			+		+			-+	+	+		-+		+	+

14. Write a SQL statement to add an index named indx_job_id on job_id column in the table job_history.

15. Write a SQL statement to drop the index indx_job_id from job_history table.