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Lab Exercise 3:

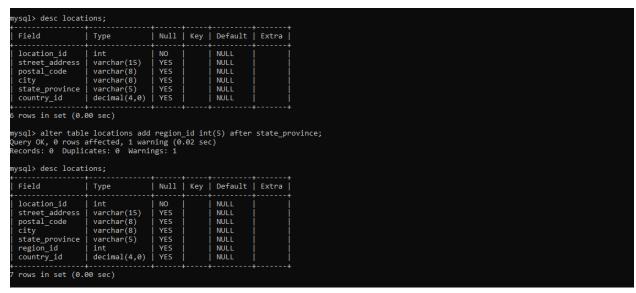
1. Write a SQL statement to rename the table countries to country new.

```
Tables_in_day2
   countries8
  departments
  employees3
job_history4
jobs4
  myview
  tbl_dept
tbl_employee
tbl_employee1
tbl_employee2
tbl_student
11 rows in set (0.00 sec)
mysql> alter table countries8 rename to country_new;
Query OK, 0 rows affected (0.01 sec)
mysql> show tables;
  Tables_in_day2 |
  country_new
  departments
  employees3
   job_history4
   jobs4
  myview
tbl_dept
tbl_employee
tbl_employee1
tbl_employee2
tbl_student
11 rows in set (0.00 sec)
 nysql>
```

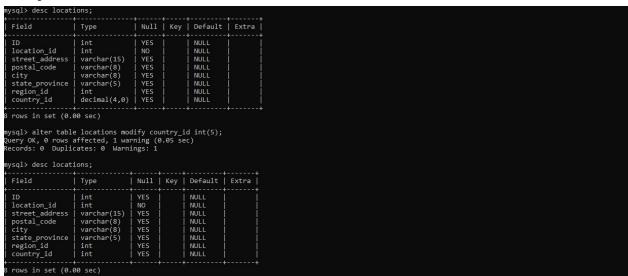
2. Write a SQL statement to add a column region id to the table locations.

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

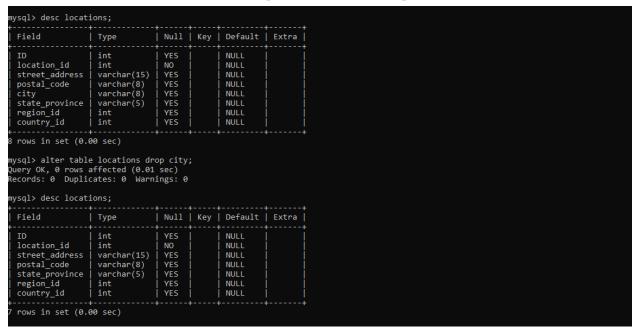
4. Write a SQL statement to add a column region_id after state_province to the table locations.



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.



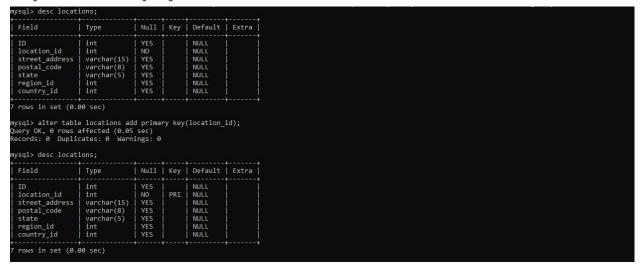
7. Write a SQL statement to change the name of the column state_province to state, keeping the data type and size same.

Field	Туре	Null	Key	Default	Extra
location_id street_address postal_code state_province region_id	int int varchar(15) varchar(8) varchar(5) int int	YES YES YES YES		NULL NULL NULL NULL NULL NULL NULL	
rows in set (0.0 sql> alter table ery OK, 0 rows a cords: 0 Duplic	00 sec) locations dr	op stat	e_prov	-	
ysql> desc locati					
				Default	Extra
	Туре				

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;
 Field
                                      | Null | Key | Default | Extra |
                       int
                                         YES
                                                         NULL
 location_id
                       int
                                        NO
                                                         NULL
 street_address
postal_code
                       varchar(15)
varchar(8)
varchar(5)
                                         YES
                                                         NULL
                                                         NULL
 state
region_id
                                                         NULL
                       int
                                                         NULL
                                        YES
 country_id
                                         YES
                                                         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 |
                       Type
 ID
                       int
                                        YES
                                                         NULL
 location id
                                        NO
                                                 PRI
                                                         NULL
 street_address
postal_code
                       varchar(15)
varchar(8)
varchar(5)
                                                         NULL
 region_id
 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.

```
mysql> desc locations;
                                      Null | Key | Default | Extra |
 Field
                     Type
                      int
                                      YES
                                                      NULL
 location_id
                                              PRI
                      int
                                      NO
                                                      NULL
 street_address
postal_code
                      varchar(15)
varchar(8)
                                                      NULL
                                                      NULL
                      varchar(5)
 region_id
                                                      NULL
                                              PRT
 country_id
                      int
                                      NO
 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
 Field
                   | Type
  location_id
 street_address
postal_code
                      varchar(15)
                                                      NULL
                      varchar(8)
varchar(5)
                                                      NULL
                                      YES
                                                      NULL
  state
 region_id
                      int
                                      YES
                                                      NULL
 country_id
                                                      NULL
 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.

	_history					
Field	Type	Null	Key	Defa	ult Ext	ra
employee_id start_date hire_date job_id department_id	int date date int int	NO YES YES NO NO		NULL NULL NULL NULL		
rows in set (
ysql> desc job						
Field	Type		Null	Key	Default	Extra
	int varchar(decimal(35) 6,0) 6,0)	NO NO YES YES	NO NU YES NU		
rows in set (0.00 sec			+		+
/sql> alter ta Jery OK, 0 row ecords: 0 Dup /sql> desc job 	s affectolicates:	ed (0.0 0 War ;	07 sec) rnings:		key(job_	
employee_id	int	NO	- ; -	NULL		
start date	date date int		MIII	NULL NULL		
hire_date job id			FIOL	INOLL		

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.

Query OK	wysql> alter table job history drop foreign key fk_job_id; Query OK, Ø rows affected (0.01 sec) Records: Ø Duplicates: Ø Warnings: Ø																				
	nysql> show index from job_history;																				
•	ession	Non_un	on_unique Key_name		e Seq_ir	_index	Column_nam	ie Col	llation	Cardi	nality	Sub	_part	Packed	Null	Index	_type	Comment	Index_c	omment	
job_his	+ story 			fk_job_:	id		job_id			I		l	NULL	NULL		BTREE			I		YES
+	1 row in set (0.00 sec)																				
mysql> de																					
Field		Type	Null	Key	Default	Extra															
employe start_c hire_da job_id departa	ee_id date ate ment_id	int date date int int	NO YES YES NO NO	 MUL	NULL NULL NULL NULL NULL																
-	t																				
mysql> s				+		+	+		+		+			-+	+			+		+	-+
	+ Non_un 	ique	Key_nar	ne Se	q_in_index	Column	n_name Col	lation	Cardi	nality	Sub_p	art	Packed	Null	Index_	type	Comment	t Index	_comment	Visible	Exp
jobs j			PRIMAR			job_i							NULL		BTREE			İ		YES	NUL
1 row in		01 sec)			,															

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

mysql> show inde	x from j	ob_hi	story;												
+	Non_uniq	ue												Index_comment	
++ job_history NULL		1	fk_job_id				A	0				BTREE	† 		YES
++ 1 row in set (0. mysql> alter tab	00 sec) le job_h			ex index	<_job_id(job_id);		+	+	+	++		+		
Query OK, 0 rows Records: 0 Dupl															
mysql> desc job_ +			-+		.+										
Field	Type	Null	. Key I)efault	Extra	į									
employee_id start_date hire_date job_id department_id	date int int	NO NO		IULL											
+5 rows in set (0			-++		+	t .									
mysql> show inde						+				4		+			
+	+ Non_uniq n	ue	Key_name	Se	eq_in_ind	ex Column_na	ne Collati		ty Sub_pa					nt Index_comme	t Vis
job_history NULL			index_job			1 job_id	A				ננ	BTREE	l	İ	YES
1 row in set (0.		+-													

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