CE 223 DATABASE SYSTEMS

SECTION 3 & 4 - LAB 3

- Import the world database schema provided on the Blackboard and write the following SQL queries, PSM functions and triggers in MySQL.
 - 1. At first, modify the country table of the world database schema to add an attribute called 'NumberOfCities' with a default value of 1. (20 pts)

After the modification, run the following query:

SELECT Name, Capital, NumberOfCities

FROM world.country

WHERE population < 500

ORDER BY Name;

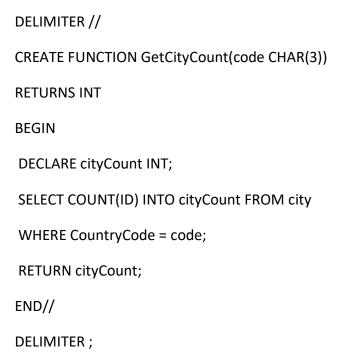
, and make sure that you obtain a similar result like this:

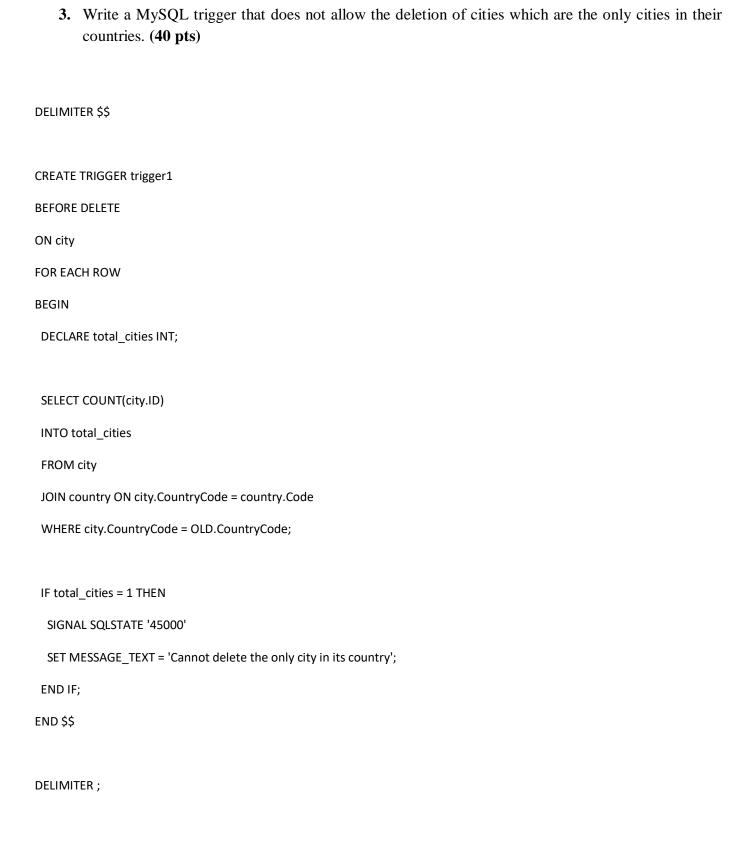
Name	Capital	NumberOfCities
Antarctica	NULL	1
Bouvet Island	NULL	1
British Indian Ocean Territory	NULL	1
French Southern territories	NULL	1
Heard Island and McDonald Islands	NULL	1
Pitcairn	2912	1
South Georgia and the South Sandwich Islands	NULL	1
United States Minor Outlying Islands	NULL	1

Query;

ALTER TABLE country ADD NumberOfCities INT DEFAULT 1;

2. Clearly, we set the value of the NumberOfCities attribute to 1 for each country and this is not the correct value for many countries. Write a MySQL PSM function (called GetCityCount) that for a given country code, it returns the number of cities that country has. (40 pts)





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MySQL Trigger Template

DELIMITER $$

CREATE TRIGGER <TRIGGER NAME>

<AFTER/BEFORE> <INSERT/UPDATE/DELETE> ON 
FOR EACH ROW

BEGIN

IF <CONDITION> THEN (OPTIONAL)

<STATEMENT THAT PERFORMS REQUIRED TASK>
END IF;
```

END \$\$