12.05.2023

CE 223 DATABASE SYSTEMS

SECTION 3 & 4 - LAB 4

- Important notes about using procedures:
  - If you have created a faulty procedure, before you create another one with the same name, you should remove it using "`DROP PROCEDURE ProcedureName`" command. [Ref.]
  - You should begin your code with "`DELIMITER $$`" and add "`$$`" to the end of your code.
  - After you create the procedure, you can run it using "`CALL ProcedureName(parameter1, parameter2, …);`" statement.
  - To display an output data (that is a variable in `OUT` mode) from a procedure, you can use "`SELECT @output_variable;`" command. For each select statement that is used for displaying purposes, you are going to get different result tab in MySQL workbench. [Ref.]

- Import the `world` database schema provided on the Blackboard and write the following stored procedures in MySQL.

1. Write a stored procedure which takes a surface area size as an input argument, and returns the number of countries whose surface area sizes are greater than given input. **(50 pts)**

```
DELIMITER //
CREATE PROCEDURE CountCountriesBySurfaceArea(IN surfaceAreaSize FLOAT)
BEGIN
   SELECT COUNT(*) AS NumberOfCountries
   FROM Country
   WHERE SurfaceArea > surfaceAreaSize;
END //
DELIMITER ;

CALL CountCountriesBySurfaceArea(10000);
```

2. Write a stored procedure that changes the names of the countries which talk Spanish into their local names. **(50 pts)**

```
DELIMITER //

CREATE PROCEDURE UpdateCountryNamesWithLocalNames()
BEGIN
   UPDATE Country AS c
   JOIN CountryLanguage AS cl ON c.Code = cl.CountryCode
   SET c.Name = c.LocalName
   WHERE cl.Language = 'Spanish';
END; //

DELIMITER ;

CALL UpdateCountryNamesWithLocalNames();
```