

## PROCEDIMIENTOS PL/SQL

Escribir un procedimiento con las siguientes características:

Nombre: `pr_add_country`

Parámetros de entrada: id del país (`p_country_id`), nombre del país (`p_country_name`), continente (`p_continent`), región (`p_region`), área en km2 (`p_area`), año de independencia (`p_year`), expectativa de vida (`p_life_expect`), forma de gobierno (`p_government_form`)

Parámetros de salida: Cantidad de registros insertados (`p_records`)

Descripción: Insertar un nuevo país con los datos proporcionados en los parámetros de entrada.

Para los parámetros de entrada use los valores y/o datos que usted considere

```
MariaDB [world]> CREATE PROCEDURE pr_add_country( IN p_country_id type of country.Code, IN p_country_name type of country.Name, IN p_continent type of country.Continent, IN p_region type of country.Region, IN p_area type of country.SurfaceArea, IN p_year type of country.IndependYear, IN p_life_expect type of country.LifeExpectancy, IN p_government_form type of country.GovernmentForm, OUT p_records int ) BEGIN INSERT INTO country(Code,Name,Continent,Region,SurfaceArea,IndependYear,LifeExpectancy,GovernmentForm) VALUES (p_country_id, p_country_name, p_continent, p_region, p_area, p_year, p_life_expect, p_government_form); SET p_records := ROW_COUNT(); END;
Query OK, 0 rows affected (0.006 sec)

MariaDB [world]> CALL pr_add_country('FEL','FELIPE','Asia','ASD',42,2000,1,'DEMOCRACIA')
-> $$
ERROR 1318 (42000): Incorrect number of arguments for PROCEDURE world.pr_add_country: expected 9, got 8
MariaDB [world]> CALL pr_add_country('FEL','FELIPE','Asia','ASD',42,2000,1,'DEMOCRACIA',@p_records)$
Query OK, 1 row affected (0.004 sec)

MariaDB [world]> SELECT @p_records$
+-----+
| @p_records |
+-----+
|          1 |
+-----+
1 row in set (0.001 sec)

MariaDB [world]> SELECT * FROM country WHERE Code = 'FEL'$
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near 'FROM country WHERE Code = 'FEL'' at line 1
MariaDB [world]> SELECT * FROM country WHERE Code = 'FEL'$
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| Code | Name   | Continent | Region | SurfaceArea | IndependYear | Population | LifeExpectancy | GNP | GNP0ld | LocalName | GovernmentForm | HeadOfState | Capital | Code2 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| FEL  | FELIPE | Asia      | ASD    | 42.00       | 2000         | 0         | 1.0            | 1.0 | NULL  | NULL     | DEMOCRACIA    | NULL       | NULL   | NULL |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
1 row in set (0.001 sec)
```

Escribir un procedimiento con las siguientes características:

Nombre: `pr_add_city`

Parámetros de entrada: id del país al que pertenece la ciudad (`p_country_id`), nombre de la ciudad (`p_city_name`), población (`p_population`)

Parámetros de salida: id asignado a la ciudad (`p_city_id`), cantidad de registros insertados (`p_records`)

Descripción: Insertar una nueva ciudad con los datos proporcionados en los parámetros de entrada.

Para los parámetros de entrada use los valores y/o datos que usted considere.

A modo de sugerencia, use el mismo id de país del ejercicio anterior

```
MariaDB [world]> CREATE PROCEDURE pr_add_city( IN p_country_id TYPE OF city.CountryCode, IN p_city_name TYPE OF city.Name, IN p_population TYPE OF city.Population, OUT p_city_id TYPE OF city.ID, OUT p_records int ) BEGIN INSERT INTO city(CountryCode, Name, Population) VALUES (p_country_id, p_city_name, p_population); SET p_city_id := LAST_INSERT_ID(); SET p_records := ROW_COUNT(); END;
Query OK, 0 rows affected (0.006 sec)

MariaDB [world]> CALL pr_add_city('FEL','PAISALANDIA',10,@p_city_id,@p_records)$
Query OK, 1 row affected (0.005 sec)

MariaDB [world]> SELECT @p_city_id, @p_records $
+-----+-----+
| @p_city_id | @p_records |
+-----+-----+
|         4080 |          1 |
+-----+-----+
1 row in set (0.001 sec)

MariaDB [world]> SELECT * FROM city WHERE ID = 4080$
+-----+-----+-----+-----+
| ID | Name       | CountryCode | District | Population |
+-----+-----+-----+-----+
| 4080 | PAISALANDIA | FEL         |          | 10         |
+-----+-----+-----+-----+
1 row in set (0.001 sec)

MariaDB [world]>
```

[illegible]

Escribir un procedimiento con las siguientes características:

Nombre: pr\_get\_cities\_by\_country\_id

Parámetros de entrada: id del país (p\_country\_id)

Parámetros de salida: N/A

Descripción: Obtener id, nombre y población de las ciudades que pertenecen al país especificado en el parámetro de entrada.

Para el parámetro de entrada, use el valores y/o dato que usted considere

Al ejecutar el procedimiento, se debe mostrar la lista de ciudades

```
MariaDB [world]> CREATE PROCEDURE pr_get_cities_by_country_id(
->   IN p_country_id TYPE OF city.CountryCode
-> )
-> BEGIN
->   SELECT ID, Name, Population FROM city WHERE CountryCode = p_country_id;
-> END;
-> $$
```

Query OK, 0 rows affected (0.008 sec)

```
MariaDB [world]> CALL pr_get_cities_by_country_id('COL')$$
```

ID	Name	Population
2257	Santafé de Bogotá	6260862
2258	Cali	2077386
2259	Medellín	1861265
2260	Barranquilla	1223260
2261	Cartagena	805757
2262	Cúcuta	606932
2263	Bucaramanga	515555
2264	Ibagué	393664
2265	Pereira	381725
2266	Santa Marta	359147
2267	Manizales	337580
2268	Bello	333470
2269	Pasto	332396
2270	Neiva	300052
2271	Soledad	295058
2272	Armenia	288977
2273	Villavicencio	273140
2274	Soacha	272058
2275	Valledupar	263247
2276	Montería	248245
2277	Itagüí	228985
2278	Palmira	226509
2279	Buenaventura	224336
2280	Floridablanca	221913
2281	Sincelejo	220704
2282	Popayán	200719
2283	Barrancabermeja	178020
2284	Dos Quebradas	159363
2285	Tuluá	152488
2286	Envigado	135848
2287	Cartago	125884
2288	Girardot	110963
2289	Buga	110699
2290	Tunja	109740
2291	Florencia	108574
2292	Maicao	108053
2293	Sogamoso	107728
2294	Giron	90688

38 rows in set (0.002 sec)

Escribir un procedimiento con las siguientes características:

Nombre: pr\_delete\_country\_by\_id

Parámetros de entrada: id del país (p\_country\_id)

Parámetros de salida: Nombre del país (p\_country\_name), nombre del presidente (p\_head\_of\_state), producto interno bruto (p\_gnp), cantidad de registros borrados (p\_records)

Descripción: Obtener primero el nombre del país, nombre del presidente y producto interno bruto en los parámetros de salida, y luego eliminar el registro completo.

Para el parámetro de entrada, use el valores y/o dato que usted considere

```
MariaDB [world]> CREATE PROCEDURE pr_delete_country_by_id(
-> IN p_country_id TYPE OF country.Code,
-> OUT p_country_name TYPE OF country.Name,
-> OUT p_head_of_state TYPE OF country.HeadOfState,
-> OUT p_gnp TYPE OF country.GNP,
-> OUT p_records INT
-> )
-> BEGIN
-> SELECT Name, HeadOfState, GNP INTO p_country_name, p_head_of_state, p_gnp FROM country WHERE Code = p_country_id;
-> DELETE FROM country WHERE Code = p_country_id;
-> SET p_records := ROW_COUNT();
-> END;
-> $$
Query OK, 0 rows affected (0.022 sec)

MariaDB [world]> SELECT * FROM country WHERE Code = 'FEL'$$
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| Code | Name | Continent | Region | SurfaceArea | IndepYear | Population | LifeExpectancy | GNP | GNP0ld | LocalName | GovernmentForm | HeadOfState | Capital | Code2 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| FEL | FELIPE | Asia | ASD | 42.00 | 2000 | 0 | 1.0 | NULL | NULL | | DEMOCRACIA | NULL | NULL | |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
1 row in set (0.002 sec)

MariaDB [world]> CALL pr_delete_country_by_id('FEL',@p_country_name,@p_head_of_state,@p_gnp,@p_records)$$
ERROR 1451 (23000): Cannot delete or update a parent row: a foreign key constraint fails ('world`.`city`, CONSTRAINT `city_ibfk_1` FOREIGN KEY (`CountryCode`) REFERENCES `country` (`Code`))
MariaDB [world]> SELECT @p_country_name,@p_head_of_state,@p_gnp,@p_records$$
+-----+-----+-----+-----+
| @p_country_name | @p_head_of_state | @p_gnp | @p_records |
+-----+-----+-----+-----+
| NULL | NULL | NULL | 1 |
+-----+-----+-----+-----+
1 row in set (0.000 sec)

MariaDB [world]> DELETE FROM city WHERE CountryCode = 'FEL'$$
Query OK, 1 row affected (0.022 sec)

MariaDB [world]> CALL pr_delete_country_by_id('FEL',@p_country_name,@p_head_of_state,@p_gnp,@p_records)$$
Query OK, 2 rows affected (0.004 sec)

MariaDB [world]> SELECT @p_country_name,@p_head_of_state,@p_gnp,@p_records$$
+-----+-----+-----+-----+
| @p_country_name | @p_head_of_state | @p_gnp | @p_records |
+-----+-----+-----+-----+
| FELIPE | NULL | NULL | 1 |
+-----+-----+-----+-----+
1 row in set (0.000 sec)
```

así era la ciudad 'FEL'

Code	Name	Continent	Region	SurfaceArea	IndepYear	Population	LifeExpectancy	GNP	GNP0ld	LocalName	GovernmentForm	HeadOfState	Capital	Code2
FEL	FELIPE	Asia	ASD	42.00	2000	0	1.0	NULL	NULL		DEMOCRACIA	NULL	NULL	

```

MariaDB [world]> CREATE PROCEDURE pr_capitalize_cities(
  ->     OUT p_records int
  -> )
  -> BEGIN
  ->     UPDATE city SET Name = UPPER(Name), District = UPPER(District);
  ->
  ->     SET p_records := ROW_COUNT();
  -> END;
  -> $$
Query OK, 0 rows affected (0.022 sec)

```

```

MariaDB [world]> CALL pr_capitalize_cities(@p_records)$$
Query OK, 4079 rows affected (0.042 sec)

```

KENOSHA	WISCONSIN
ELGIN	ILLINOIS
ODESSA	TEXAS
CARSON	CALIFORNIA
CHARLESTON	SOUTH CAROLINA
CHARLOTTE AMALIE	ST THOMAS
HARARE	HARARE
BULAWAYO	BULAWAYO
CHITUNGWIZA	HARARE
MOUNT DARWIN	HARARE
MUTARE	MANICALAND
GWERU	MIDLANDS
GAZA	GAZA
KHAN YUNIS	KHAN YUNIS
HEBRON	HEBRON
JABALIYA	NORTH GAZA
NABLUS	NABLUS
RAFAH	RAFAH

4079 rows in set (0.006 sec)

```

MariaDB [world]> SELECT @p_records$$
+-----+
| @p_records |
+-----+
|         4079 |
+-----+
1 row in set (0.001 sec)

```