

## EJERCICIOS DE PROCEDIMIENTOS

1 Creeu un procediment amb el que actualitzeu tots els valors del camp POSTAL\_CODE de la taula LOCATIONS. El valor del nou camp serà el mateix que el codi postal de la ciutat de Oxford.

```
mysql> create procedure cop_upd()
-> begin
-> declare codigo varchar(12);
-> select postal_code into codigo from locations where city = 'Oxford';
-> update Locations set postal_code = codigo;
-> end
-> //
Query OK, 0 rows affected (0.08 sec)

mysql> call cop_upd();
-> //
Query OK, 4 rows affected (0.08 sec)

mysql> select * from locations//
+-----+-----+-----+-----+-----+
| LOCATION_ID | STREET_ADDRESS | STATE_PROVINCE | COUNTRY_ID | POSTAL_CODE | CITY |
+-----+-----+-----+-----+-----+
| 1400 | 2014 Jabberwocky Rd | Texas | US | 0X9 9ZB | Southla |
| 1500 | 2001 Interiors Blvd | California | US | 0X9 9ZB | South |
| 1700 | 2004 Charade Rd | Washington | US | 0X9 9ZB | Seattle |
| 1800 | 460 Bloor St. W. | Ontario | CA | 0X9 9ZB | Toronto |
| 2500 | Magdalen Centre, The Oxford Science | Oxford | UK | | |
| Park | 0X9 9ZB | | | | |
+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

2 Creeu un procediment que us retorni el nom de tots els empleats de un departament. El codi del departament el passareu al procediment com paràmetre d'entrada.

```
mysql> create procedure nom_emp(in dep_id float)
-> begin
-> select first_name from employees where department_id = dep_id;
-> end
-> //
Query OK, 0 rows affected (0.00 sec)

mysql> call nom_emp(60)//
+-----+
| first_name |
+-----+
| Alexander |
| Bruce |
| Diana |
+-----+
3 rows in set (0.00 sec)

Query OK, 0 rows affected (0.00 sec)
```

3 Creeu un procediment que us conte el nombre d'empleats que hi ha en el departament que li passareu com paràmetre. Si el nombre d'empleats es major que 3 us mostrarà un missatge que us dirà TOO MUCH si és menor us apareixerà un missatge dient NOT TOO MUCH.

```
mysql> create procedure cont_emp(in dep_id float)
-> begin
-> declare cont int;
-> declare si varchar(10) default 'TOO MUCH';
-> declare no varchar(12) default 'NO TOO MUCH';
-> select count(employee_id) into cont from employees where department_id =
dep_id;
-> if cont > 3 then
-> select si;
-> else
-> select no;
-> end if;
-> end
-> //
Query OK, 0 rows affected (0.00 sec)

mysql> call cont_emp(60)//
+-----+
| no      |
+-----+
| NO TOO MUCH |
+-----+
1 row in set (0.02 sec)

Query OK, 0 rows affected (0.02 sec)
```

4 Creeu un procediment que us permeti inserir dades en la taula COUNTRIES.

```
mysql> create procedure ins_dat(in n1 char(2),in n2 varchar(40), in n3 float)
-> begin
-> insert into countries values (n1, n2, n3);
-> end
-> //
Query OK, 0 rows affected (0.00 sec)

mysql> call ins_dat('PE', 'Peru', 1)//
Query OK, 1 row affected (0.02 sec)

mysql> select * from countries//
+-----+-----+-----+
| COUNTRY_ID | COUNTRY_NAME | REGION_ID |
+-----+-----+-----+
| CA         | Canada       | 2         |
| DE         | Germany      | 1         |
| PE         | Peru         | 1         |
| UK         | United Kingdom | 1         |
| US         | United States of America | 2         |
+-----+-----+-----+
5 rows in set (0.00 sec)
```

5 Creeu un procediment que us permeti afegir un camp a la taula JOBS amb la data i hora actual.

```
mysql> create procedure nou_camp (>
-> begin
-> alter table jobs add fecha_actual timestamp;
-> update jobs set fecha_actual = current_timestamp();
-> end
-> //
Query OK, 0 rows affected (0.05 sec)

mysql> call nou_camp();//
Query OK, 12 rows affected (0.30 sec)

mysql> select * from jobs;
-> //
```

JOB_ID	JOB_TITLE	MIN_SALARY	MAX_SALARY	Tiempo_
AC_ACCOUNT	Public Accountant	4200	9000	2010-04-20 19:58:20
AC_MGR	Accounting Manager	8200	16000	2010-04-20 19:58:20
AD_ASST	Administration Assistant	3000	6000	2010-04-20 19:58:20
AD PRES	President	20000	40000	2010-04-20 19:58:20
AD UP	Administration Vice President	15000	30000	2010-04-20 19:58:20
IT_PROG	Programmer	4000	10000	2010-04-20 19:58:20
MK MAN	Marketing Manager	9000	15000	2010-04-20 19:58:20
MK REP	Marketing Representative	4000	9000	2010-04-20 19:58:20
SA MAN	Sales Manager	10000	20000	2010-04-20 19:58:20
SA REP	Sales Representative	6000	12000	2010-04-20 19:58:20
ST CLERK	Stock Clerk	2000	5000	2010-04-20 19:58:20
ST MAN	Stock Manager	5500	8500	2010-04-20 19:58:20

```
12 rows in set (0.00 sec)
```

6 Creeu un procediment que a partir de la mitja dels sous de tots els empleats calculi el 15% de la mateixa i actualitzi els sous inferiors a la mitja aquesta quantitat.

```
mysql> create procedure sueldo1 (>
-> begin
-> declare media float;
-> declare porcen float;
-> select avg(salary) into media from employees;
-> select (avg(salary) * 0.15) into porcen from employees;
-> update employees set salary = (salary + porcen) where salary < media;
-> end
-> //
Query OK, 0 rows affected (0.01 sec)

mysql> call sueldo1();//
Query OK, 11 rows affected (0.08 sec)

mysql> _
```

7 Creeu una funció que retorni el número d'empleats que treballen en la ciutat de "Toronto"

```
mysql> create function num_emp () returns int
-> begin
-> declare ciudad int;
-> select count(employee_id) into ciudad
-> from (employees e join departments d on e.department_id = d.department_id
)
-> join locations l on l.location_id = d.location_id
-> where city = 'Toronto';
-> return ciudad;
-> end
-> //
Query OK, 0 rows affected (0.00 sec)

mysql> select num_emp();//
+-----+
| num_emp() |
+-----+
|          2 |
+-----+
1 row in set (0.01 sec)
```

8 Creeu un procediment que retorni una variable, la qual posteriorment mostrarem, amb la suma de tots els sous dels empleats que son ST\_CLERK.

```
mysql> create procedure ejer8 (out suma int)
-> begin
-> select sum(salary) into suma from employees where job_id = 'ST_CLERK';
-> end
-> //
Query OK, 0 rows affected (0.00 sec)

mysql> select suma//
ERROR 1054 (42S22): Unknown column 'suma' in 'field list'
mysql> select @suma//
+-----+
| @suma |
+-----+
| 16832 |
+-----+
1 row in set (0.00 sec)
```

9 Creeu un procediment que mostri junts el nom i el cognom de tots els empleats.

```
mysql> create procedure nombre (>
-> begin
-> select concat(first_name,' ',last_name) as Nombre_Completo from employees
;
-> end
-> //
```

Query OK, 0 rows affected (0.01 sec)

```
mysql> call nombre();//
```

Nombre_Completo
Steven King
Neena Kochhar
Lex De Haan
Alexander Hunold
Bruce Ernst
Diana Lorentz
Kevin Mourgos
Trenna Rajs
Curtis Davies
Randall Matos
Peter Vargas
Kimberely Grant
Jennifer Whalen
Michael Hartstein
Pat Fay
Shelley Higgins
William Gietz

17 rows in set (0.00 sec)

Query OK, 0 rows affected (0.00 sec)

10 Creeu una funció que retorni la mitja dels sous dels empleats del departament 110. Creeu també un procediment que utilitzant la funció anterior esborri tots els empleats que cobrin més del sou mig del departament 110.

```
mysql> create function media (> returns int
-> begin
-> declare media int;
-> select avg(salary) into media from employees where department_id = 110;
-> return media;
-> end
-> //
```

Query OK, 0 rows affected (0.00 sec)

```
mysql> create procedure ejer10(>
-> begin
-> declare media int;
-> select media() into media;
-> delete from employees where (salary > media) and department_id= 110;
-> end
-> //
```

Query OK, 0 rows affected (0.00 sec)

```
mysql> call ejer10();//
```

Query OK, 1 row affected (0.05 sec)

11 Creeu un procediment que us mostri totes les dades de la taula passada com a paràmetre ordenada descendent pel camp de la clau primària.

```
mysql> DELIMITER //
mysql> CREATE PROCEDURE CLAVE(IN TABLA CHAR(64))
-> BEGIN
-> DECLARE TAB VARCHAR(64);
-> SELECT COLUMN_NAME INTO TAB FROM information_schema.COLUMNS WHERE COLUMN_KEY='PRI' AND TABLE_NAME=TABLA;
-> SET @CAD=CONCAT('SELECT * FROM ',TABLA,' ORDER BY ',TAB,' DESC');
-> PREPARE CADENA FROM @CAD;
-> EXECUTE CADENA;
-> END//
Query OK, 0 rows affected (0.00 sec)
```

```
mysql> CALL CLAVE('EMPLOYEES');//
```

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID
206	William	Gietz	WGIEZT	515.123.8181	1994-06-07	AC_ACCOUNT	9582.94	NULL	205	110
202	Pat	Fay	PFAY	603.123.6666	1997-08-17	MK_REP	7282.94	NULL	201	20
200	Jennifer	Whalen	JWHALEN	515.123.4444	1987-09-17	AD_ASST	5682.94	NULL	101	10
178	Kimberely	Grant	KGRANT	011.44.1644.429263	1999-05-24	SA_REP	9000.00	0.10	149	NULL
144	Peter	Vargas	PVARGAS	650.121.2004	1998-07-09	ST_CLERK	3782.94	NULL	124	50
143	Randall	Matos	RMATOS	650.121.2874	1998-03-15	ST_CLERK	3882.94	NULL	124	50
142	Curtis	Davies	CDAVIES	650.121.2994	1997-01-29	ST_CLERK	4382.94	NULL	124	50
141	Trenna	Rajs	TRAJS	650.121.8009	1995-10-17	ST_CLERK	2500.00	0.10	124	50
124	Kevin	Mourgos	KMOURGOS	650.123.5234	1999-11-16	ST_MAN	7082.94	NULL	100	50
107	Diana	Lorentz	DLORENTZ	590.423.5567	1999-02-07	IT_PROG	5482.94	NULL	103	60
104	Bruce	Ernst	BERNST	590.423.4568	1991-05-21	IT_PROG	7282.94	NULL	103	60
103	Alexander	Hunold	AHUNOLD	590.423.4567	1990-01-03	IT_PROG	9000.00	NULL	102	60

```
12 rows in set (0.07 sec)
Query OK, 0 rows affected (0.07 sec)
```

12 Creeu un procediment que retorni el número de camps i de registres que té una taula passada com a argument.

```
mysql> DELIMITER //
mysql> CREATE PROCEDURE CLAVE9(IN TABLA CHAR(64)) BEGIN
-> SET @T1=CONCAT('SELECT COUNT(*) INTO @FIL FROM ',TABLA);
-> SET @T2=CONCAT('SELECT COUNT(*) INTO @COL FROM INFORMATION_SCHEMA.COLUMNS WHERE TABLE_NAME=','"',TABLA,'");
-> PREPARE CADENA1 FROM @T1;
-> EXECUTE CADENA1;
-> PREPARE CADENA2 FROM @T2;
-> EXECUTE CADENA2;
-> SELECT 'EL NUMERO DE REGISTOS ES ',@FIL ,'Y EL NUMERO DE COLUMNAS ES ',@COL;
-> END//
Query OK, 0 rows affected (0.00 sec)
```

```
mysql> call CLAVE9('EMPLOYEES');//
```

EL NUMERO DE REGISTOS ES	@FIL	Y EL NUMERO DE COLUMNAS ES	@COL
EL NUMERO DE REGISTOS ES	12	Y EL NUMERO DE COLUMNAS ES	11

```
1 row in set (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
```

13 Creeu un procediment que ens retorni els permisos que posseïx un usuari passat com a argument.

```
mysql> DELIMITER //
mysql> CREATE PROCEDURE PERMISOS (IN USUARIO VARCHAR(30))
-> BEGIN
-> SELECT * FROM mysql.user WHERE User=USUARIO;
-> END//
Query OK, 0 rows affected (0.00 sec)
```

```
mysql> CALL PERMIS05 ('root')\G//
***** 1. row *****
      Host: localhost
      User: root
      Password: *81F5E21E35407D884A6CD4A731AEBFB6AF209E1B
      Select_priv: Y
      Insert_priv: Y
      Update_priv: Y
      Delete_priv: Y
      Create_priv: Y
      Drop_priv: Y
```

14 Creeu una funció que retorni l'arrel quadrada de la meitat del número introduït com argument.

```
mysql> CREATE FUNCTION RAIZ_CUADRA_2 (NUM INT) RETURNS FLOAT
-> DETERMINISTIC
-> BEGIN
-> DECLARE NUMFIN FLOAT;
-> SELECT SQRT(NUM/2) INTO NUMFIN;
-> RETURN NUMFIN;END//
Query OK, 0 rows affected (0.00 sec)
```

```
mysql> SELECT RAIZ_CUADRA_2('9')//
+-----+
| RAIZ_CUADRA_2('9') |
+-----+
|      2.12132024765015 |
+-----+
1 row in set (0.08 sec)
```

15 Creeu un procediment que ens mostri els camps de tipus data amb el format dd-mm-aaaa si la taula passada com argument en té algú, si no que retorni el missatge “No existeixen camps de tipus data a la taula.”

```
mysql> CREATE PROCEDURE FECHAS(IN NOM VARCHAR(64))
-> BEGIN
-> DECLARE DONE INT DEFAULT 0;
-> DECLARE A,B VARCHAR(64);
-> DECLARE HAY INT DEFAULT 0;
-> DECLARE CUR1 CURSOR FOR SELECT data_type FROM information_schema.columns WHERE table_name=NOM;
-> DECLARE CUR2 CURSOR FOR SELECT column_name FROM information_schema.columns WHERE table_name=NOM;
-> DECLARE CONTINUE HANDLER FOR SQLSTATE '02000' SET DONE=1;
-> OPEN CUR1;
-> OPEN CUR2;
-> WHILE NOT DONE DO FETCH CUR1 INTO A;
-> FETCH CUR2 INTO B;
-> IF NOT DONE THEN IF A='DATE' THEN SET @CADENA=CONCAT('SELECT DATE_FORMAT('B','%','\','%d-%m-%Y','%','\','') AS RESULTAT FROM ',NOM);
-> PREPARE CAD FROM @CADENA;
-> EXECUTE CAD;
-> SET HAY=1;
-> END IF;
-> END IF;
-> END WHILE;
-> IF HAY<>1 THEN SELECT 'NO EXISTEIXEN DATES' AS RESULTAT;
-> END IF;
-> CLOSE CUR1;
-> CLOSE CUR2;
-> END//
```

```
mysql> CALL FECHAS('EMPLOYEES')//
```

RESULTAT
17-06-1987
20-09-1989
13-01-1993
03-01-1990
21-05-1991
07-02-1999
16-11-1999
17-10-1995
29-01-1997
15-03-1998
09-07-1998
24-05-1999
17-09-1987
17-02-1996
17-08-1997
07-06-1994
07-06-1994

```
+-----+  
17 rows in set (0.01 sec)
```

```
Query OK, 0 rows affected (0.01 sec)
```

```
mysql> CALL FECHAS('JOBS')//
```

RESULTAT
NO EXISTEIXEN DATES

```
+-----+  
1 row in set (0.00 sec)
```