

## Integrantes:

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### Creación de la tabla audit\_level:

```
CREATE TABLE AUDIT_LEVEL (  
  AUDIT_DATE TIMESTAMP,  
  AUDIT_USER VARCHAR(40) not null,  
  AUDIT_ACTION ENUM('update','insert'),  
  CLAVE_CT VARCHAR(23) NOT NULL,  
  AP_PATERNO VARCHAR(51) NOT NULL,  
  AP_MATERNO VARCHAR(51) NOT NULL,  
  NOMBRE_MAE VARCHAR(51) NOT NULL,  
  VIEJO_NIVEL INT(11) NOT NULL,  
  NIVEL INT(11) NOT NULL  
);
```

### Creación del trigger:

```
DROP TRIGGER IF EXISTS TG_SPNIVEL_AI;  
DELIMITER //  
CREATE TRIGGER TG_SPNIVEL_AI  
BEFORE UPDATE ON CEMABE_PERSONAL  
FOR EACH ROW  
BEGIN  
  declare msg varchar(70);  
  DECLARE OLD_LEVEL INT DEFAULT OLD.NUEVO_NIVEL;  
  DECLARE NEW_LEVEL INT DEFAULT NEW.LEVEL;  
  
  IF OLD_LEVEL <= 7 THEN  
    IF NEW_LEVEL - OLD_LEVEL != 2 THEN SET NEW.LEVEL = (OLD_LEVEL+2);  
    END IF;  
  ELSEIF OLD_LEVEL = 8 THEN  
    IF NEW_LEVEL - OLD_LEVEL !=1 THEN SET NEW.LEVEL = (OLD_LEVEL+1);  
    END IF;  
  ELSEIF OLD_LEVEL = 9 THEN  
    IF NEW_LEVEL - OLD_LEVEL != 0 THEN SET NEW.LEVEL= 9;  
    END IF;  
  END IF;  
  
  INSERT INTO AUDIT_LEVEL  
  (AUDIT_USER, AUDIT_ACTION, CLAVE_CT, AP_PATERNO, AP_MATERNO, NOMBRE_MAE, VIEJO_NIVEL,NIVEL) VALUES  
  (CURRENT_USER(),'update', NEW.CLAVE_CT, NEW.AP_PATERNO, NEW.AP_MATERNO,NEW.NOMBRE_MAE, OLD.NUEVO_NIVEL, NEW.LEVEL);  
END  
//  
DELIMITER ;
```

## Trigger en acción:

```
mysql> select clave_ct, id_persona, nuevo_nivel from cemabe_personal limit 5;
+-----+-----+-----+
| clave_ct | id_persona | nuevo_nivel |
+-----+-----+-----+
| 21DEF0011E1 | 1339203 | 9 |
| 21ADG0036Q1 | 1339204 | 8 |
| 11DJN2828Y1 | 1339205 | 2 |
| 11DJN4393Q2 | 1339205 | 2 |
| 13DPR1518B1 | 1339206 | 3 |
+-----+-----+-----+
5 rows in set (0.00 sec)

mysql> update cemabe_personal set level = 6 where clave_ct = '13DPR1518B1' and id_persona = '1339206';
Query OK, 0 rows affected (31.16 sec)
Rows matched: 1 Changed: 0 Warnings: 0

mysql> select clave_ct, id_persona, nuevo_nivel, level from cemabe_personal limit 5;
+-----+-----+-----+-----+
| clave_ct | id_persona | nuevo_nivel | level |
+-----+-----+-----+-----+
| 21DEF0011E1 | 1339203 | 9 | 9 |
| 21ADG0036Q1 | 1339204 | 8 | 9 |
| 11DJN2828Y1 | 1339205 | 2 | 4 |
| 11DJN4393Q2 | 1339205 | 2 | 4 |
| 13DPR1518B1 | 1339206 | 3 | 5 |
+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

## Tabla Audit

```
mysql> select * from audit_level where clave_ct = '13DPR1518B1' limit 1;
+-----+-----+-----+-----+-----+-----+-----+-----+
| AUDIT_DATE | AUDIT_USER | AUDIT_ACTION | CLAVE_CT | AP_PATERNO | AP_MATERNO | NOMBRE_MAE | VIEJO_NIVEL | NIVEL |
+-----+-----+-----+-----+-----+-----+-----+-----+
| NULL | root@localhost | update | 13DPR1518B1 | RAMIREZ | MENDOZA | ALBERTA | 3 | 5 |
+-----+-----+-----+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)
```