# DATABASE: LAB 5

| ID | NAME |
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| 43 | OMAR SHAWKY ABDELSALAM ABDELAAL |

# steps :

## 1. Create procedure deptYear and test it.

```
CREATE PROCEDURE DeptYear()
        BEGIN
                update dept set founded = '1960-1-1'
                where dept.founded < '1960-1-1';
        END//
delimiter ;
CALL DeptYear();
```

```
80  ●    insert into dept values(7,'dept7','1940-10-30', 111,2400);
81  ●    insert into dept values(8,'dept8','1930-10-30', 110,2400);
82
83  ●    CALL DeptYear();
84  ●    select * from dept where dnumber >6 ;
```

Result Grid | Filter Rows: | Edit: | Export/Import:

| dnumber | dname | founded | mgr_ssn | budget |
|---------|-------|---------|---------|--------|
| 7 | dept7 | 1960-01-01 | 111 | 2400 |
| 8 | dept8 | 1960-01-01 | 110 | 2400 |
| NULL | NULL | NULL | NULL | NULL |

dept 2 ✕

Output

Action Output ▾

| # | Time | Action | Message |
|---|------|--------|---------|
| ✓ | 26 21:43:30 | insert into dept values(7,'dept7','1940-10-30', 111,2400) | 1 row(s) affected |
| ✓ | 27 21:43:31 | insert into dept values(8,'dept8','1930-10-30', 110,2400) | 1 row(s) affected |
| ✓ | 28 21:43:31 | CALL DeptYear() | 2 row(s) affected |
| ✓ | 29 21:43:31 | select * from dept where dnumber >6 LIMIT 0, 1000 | 2 row(s) returned |

## 2. Create a trigger and test it.

```
delimiter $$
create trigger deptEmpCheck
before insert on Employee
for each row
begin
    declare counter int ;
    select count(*) into counter from Employee where Employee.dno = New.dno ;
  if (counter =8 ) then
    SIGNAL SQLSTATE '45000' SET MESSAGE_TEXT = 'department full';
  end if ;
end
$$
delimiter ;
```

```
71  •    insert into Employee values(107,4,'sayed','1930-10-30', 600);
72  •    insert into Employee values(108,4,'sayed','1930-10-30', 600);
73  •    insert into Employee values(109,4,'sayed','1930-10-30', 600);
74  •    insert into Employee values(110,4,'sayed','1930-10-30', 600);
75  •    insert into Employee values(111,4,'sayed','1930-10-30', 600);
76  •    insert into Employee values(112,4,'sayed','1930-10-30', 600);
77
```

Output

Action Output ▾

| | # | Time | Action | Message |
|---|---|---|---|---|
| ✓ | 45 | 21:48:14 | CREATE FUNCTION Count_Emp( dnumber int ) RETURN... | 0 row(s) affected |
| ✓ | 46 | 21:48:14 | CREATE PROCEDURE DeptYear()     BEGIN update dep... | 0 row(s) affected |
| ✓ | 47 | 21:48:14 | create trigger deptEmpCheck before insert on Employee for ... | 0 row(s) affected |
| ✓ | 48 | 21:48:14 | insert into Employee values(107,4,'sayed','1930-10-30', 600) | 1 row(s) affected |
| ✓ | 49 | 21:48:14 | insert into Employee values(108,4,'sayed','1930-10-30', 600) | 1 row(s) affected |
| ✓ | 50 | 21:48:15 | insert into Employee values(109,4,'sayed','1930-10-30', 600) | 1 row(s) affected |
| ✓ | 51 | 21:48:15 | insert into Employee values(110,4,'sayed','1930-10-30', 600) | 1 row(s) affected |
| ✓ | 52 | 21:48:15 | insert into Employee values(111,4,'sayed','1930-10-30', 600) | 1 row(s) affected |
| ✗ | 53 | 21:48:15 | insert into Employee values(112,4,'sayed','1930-10-30', 600) | Error Code: 1644. department full |

## 3. Create a function and test it on trigger result in step 2.

```
DELIMITER $$

CREATE FUNCTION Count_Emp(
    dnumber int
)
RETURNS int
DETERMINISTIC
BEGIN
    DECLARE noOfEmp int;
    select count(*) into noOfEmp from employee where dno = dnumber ;
    -- return number of employees in department dnumber
    RETURN (noOfEmp);
END$$
DELIMITER ;
```

```
78 •    select Count_Emp(4);
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: ᴵA

| Count_Emp(4) |
| --- |
| 8 |

Result 4 ×

Output

Action Output

| # | Time | Action | Message |
| --- | --- | --- | --- |
| ✓ | 79 21:57:22 | insert into Employee values(108,4,'sayed','1930-10-30', 6... | 1 row(s) affected |
| ✓ | 80 21:57:23 | insert into Employee values(109,4,'sayed','1930-10-30', 6... | 1 row(s) affected |
| ✓ | 81 21:57:23 | insert into Employee values(110,4,'sayed','1930-10-30', 6... | 1 row(s) affected |
| ✓ | 82 21:57:23 | insert into Employee values(111,4,'sayed','1930-10-30', 6... | 1 row(s) affected |
| ✗ | 83 21:57:23 | insert into Employee values(112,4,'sayed','1930-10-30', 6... | Error Code: 1644. department full |
| ✓ | 84 21:57:23 | select Count_Emp(4) LIMIT 0, 1000 | 1 row(s) returned |