

# LAB 5

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## Stored Procedures

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Abdelrahman EL-Khazendar

ID1: 38

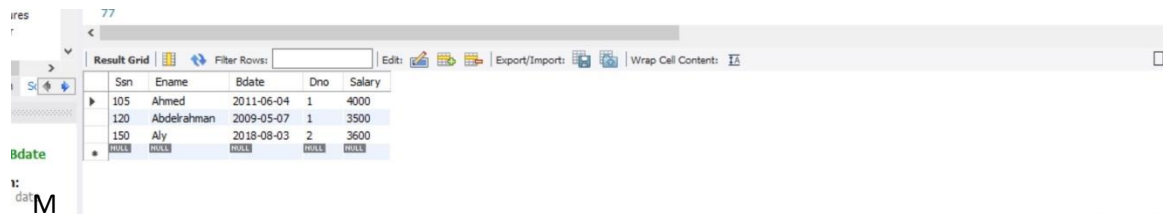
Name2:Ahmed Adel Mohamed Atef

ID2: 7

## Steps :

1. We created the schema COMPANY that has 2 tables DEPT and EMPLOYEE
2. After creating each table with its primary key , We altered tables by adding foreign keys
3. We inserted some values in tables then select them

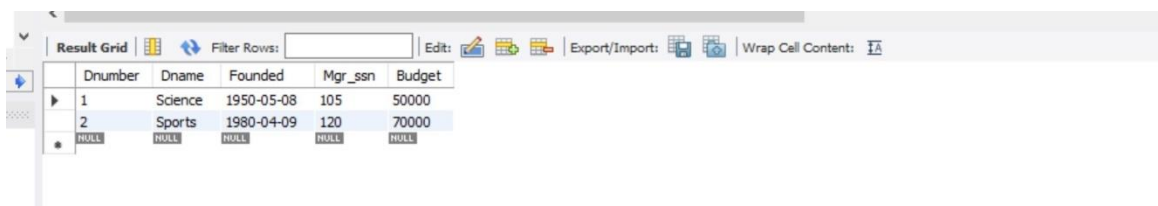
Here is the employee table



The screenshot shows a database management tool interface. On the left, a tree view displays the database structure with 'Bdate' and 'dat' folders. The main area is titled 'Result Grid' and shows the data for the 'EMPLOYEE' table. The table has five columns: 'Ssn', 'Ename', 'Bdate', 'Dno', and 'Salary'. There are three data rows and one row with null values. The toolbar at the top includes options for 'Filter Rows', 'Edit', 'Export/Import', and 'Wrap Cell Content'.

Ssn	Ename	Bdate	Dno	Salary
105	Ahmed	2011-06-04	1	4000
120	Abdelrahman	2009-05-07	1	3500
150	Aly	2018-08-03	2	3600
NULL	NULL	NULL	NULL	NULL

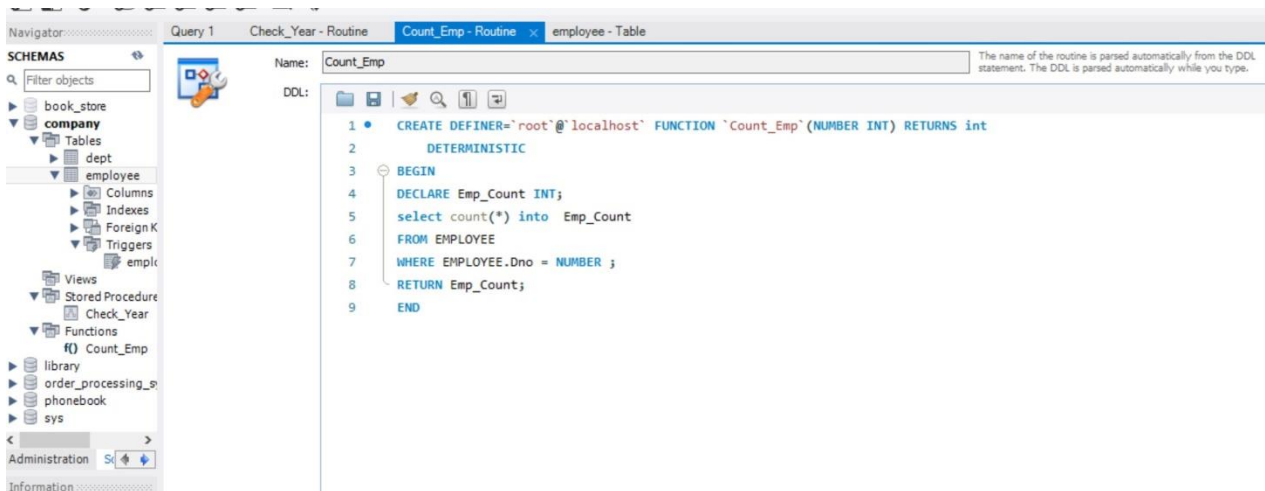
Here is the dept table



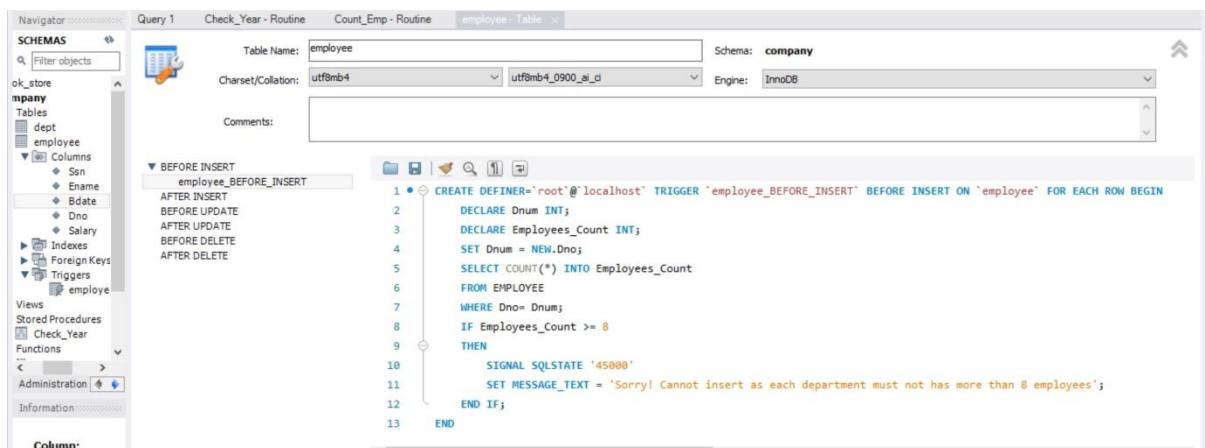
The screenshot shows a database management tool interface. On the left, a tree view displays the database structure. The main area is titled 'Result Grid' and shows the data for the 'DEPT' table. The table has five columns: 'Dnumber', 'Dname', 'Founded', 'Mgr\_ssn', and 'Budget'. There are two data rows and one row with null values. The toolbar at the top includes options for 'Filter Rows', 'Edit', 'Export/Import', and 'Wrap Cell Content'.

Dnumber	Dname	Founded	Mgr_ssn	Budget
1	Science	1950-05-08	105	50000
2	Sports	1980-04-09	120	70000
NULL	NULL	NULL	NULL	NULL

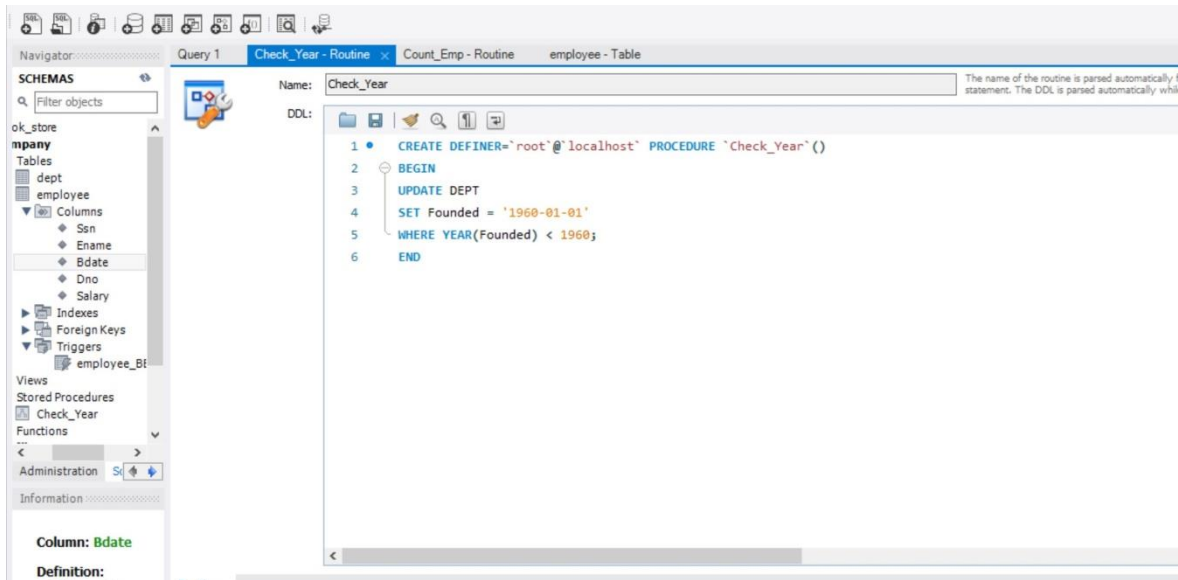
## 4. We created the function Count\_Emp



## 5. We created the trigger (in table employee)

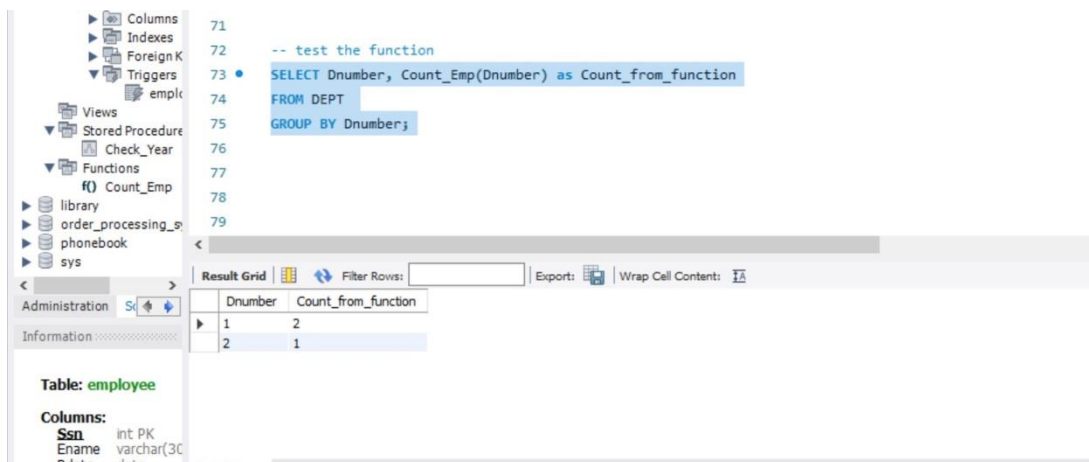


## 6. We created the procedure



## Screenshots of the results:

- We tested the function (this result according to the values we inserted and their screenshot provided before



- We tested the trigger ( We added values to the values we added before to make number of employees in department 1 equal 8 then we tried to insert another employee but we had an error because of the trigger )

Ssn	Ename	Bdate	Dno	Salary
105	Ahmed	2011-06-04	1	4000
120	Abdelrahman	2009-05-07	1	3500
122	Abdallah	2009-05-02	1	3800
130	Adel	2009-07-08	1	3800
144	Mohamed	2018-01-03	1	3200
150	Aly	2018-08-03	2	3600
170	Ahmed	2013-07-04	1	3500
179	Mostafa	2011-06-09	1	3100
190	Mohamed	2020-08-01	1	3600
NULL	NULL	NULL	NULL	NULL

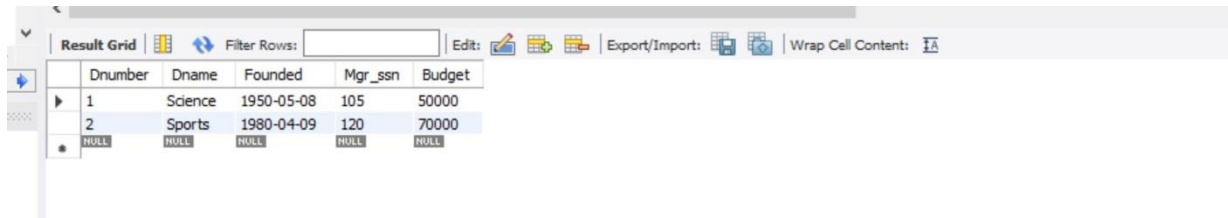
```

146
147
148 select * from EMPLOYEE ;
149
150 -- so now department 1 has 8 employees so i will try to insert another employee in dep 1 but i will get error
151 INSERT INTO EMPLOYEE VALUES ('158','Mohamed','2018-01-03','1','3500') ;
152
153
154

```

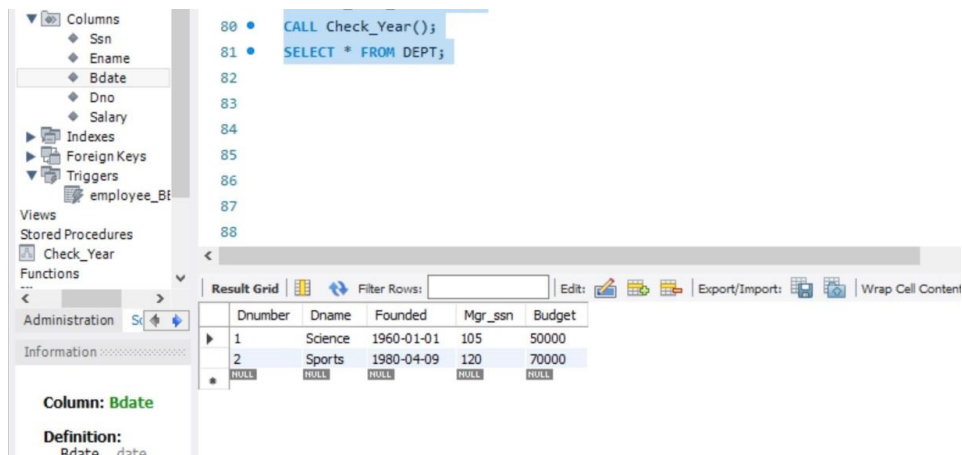
#	Time	Action	Message	Duration
1	04:30:49	select * from EMPLOYEE LIMIT 0, 500	9 row(s) returned	0.01
2	04:30:56	INSERT INTO EMPLOYEE VALUES ('158','Mohamed','2018-01-03','1','3500')	Error Code: 1644. Sorry! Cannot insert as each department must not has more than 8 employees	0.01

- We tested the procedure
- The values before in Dept table:



Dnumber	Dname	Founded	Mgr_ssn	Budget
1	Science	1950-05-08	105	50000
2	Sports	1980-04-09	120	70000
NULL	NULL	NULL	NULL	NULL

Then (after testing the procedure): (the founded year of Dnumber 1 was 1950 < 1960 so its date became 1960-01-01 )



SQL Script:

```

80 CALL Check_Year();
81 SELECT * FROM DEPT;
82
83
84
85
86
87
88

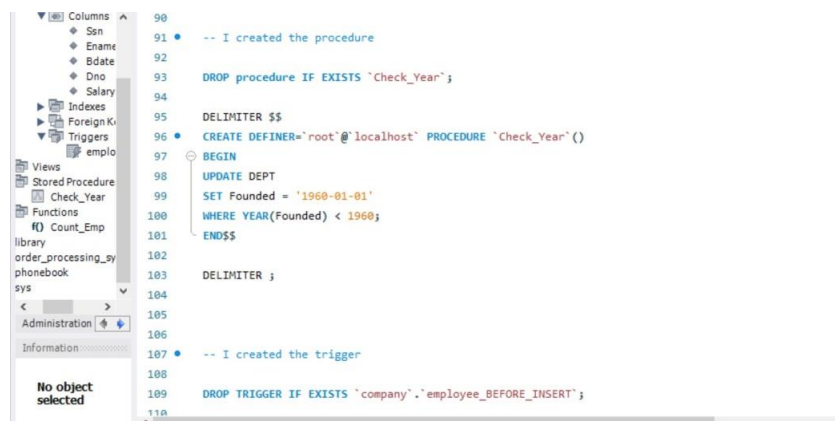
```

Result Grid:

Dnumber	Dname	Founded	Mgr_ssn	Budget
1	Science	1960-01-01	105	50000
2	Sports	1980-04-09	120	70000
NULL	NULL	NULL	NULL	NULL

Column: Bdate  
Definition: Bdate data

(Note: In the screenshots and all my work I created the function, procedure and trigger through navigator in independent file but last I put them in the original file so that I can give the link to only one file)



SQL Script:

```

90
91 -- I created the procedure
92
93 DROP procedure IF EXISTS `Check_Year`;
94
95 DELIMITER $$
96 CREATE DEFINER=`root`@`localhost` PROCEDURE `Check_Year`()
97 BEGIN
98 UPDATE DEPT
99 SET Founded = '1960-01-01'
100 WHERE YEAR(Founded) < 1960;
101 END$$
102
103 DELIMITER ;
104
105
106
107 -- I created the trigger
108
109 DROP TRIGGER IF EXISTS `company`.`employee_BEFORE_INSERT`;
110

```

No object selected