

**LAPORAN PRAKTIKUM BASIS DATA  
“RESPONSI”**

**PRAKTIKUM KE-10  
LAB A2**



Disusun Oleh :

**Arya Dheffan S**

**24060121140160**

**INFORMATIKA**

**FAKULTAS SAINS DAN MATEMATIKA**

**UNIVERSITAS DIPONEGORO**

**2022**

## Soal, SS hasil database, dan Penjelasan

Gunakan semua tabel yang dimiliki hasil import SQL schema pada APEX!

1. Tampilkan seluruh data nama lengkap karyawan, nama manager, nama departement, tanggal masuk kerjanya, dan bonus untuk karyawan-karyawan yang masuk mulai tahun 1997 hingga 2000 , memiliki bonus, dan prosentase komisi

```
GoldenZero.session.sql
  ▶ Run on active connection | ≡ Select block
1  SELECT CONCAT(e.first_name, CONCAT(' ', e.last_name)) AS EMPLOYEE_NAME,
2  CASE
3      WHEN e.manager_id IS NOT NULL THEN CONCAT(e.first_name, CONCAT(' ', e.last_name))
4      ELSE
5          'No Manager'
6  END AS MANAGER_NAME, d.department_name, e.hire_date, bonus, commission_pct
7  FROM employees e, departments d
8  WHERE e.department_id = d.department_id
9  AND bonus is not null AND commission_pct is not null
10 AND hire_date BETWEEN ('1997-01-01') AND ('2000-12-31')
```

EMPLOYEE_NAME	MANAGER_NAME	department_name	hire_date	bonus	commission_pct
Eleni Zlotkey	Eleni Zlotkey	Sales	2000-01-29	1500	0.20
Jonathon Taylor	Jonathon Taylor	Sales	1998-03-24	1250	0.20

CONCAT digunakan untuk menggabungkan 2 string, case digunakan untuk menampilkan manager\_name jika ada, jika tidak ada maka akan keluar NULL. INNER JOIN digunakan untuk menggabungkan 2 tabel tersebut. WHERE.. BETWEEN digunakan untuk menunjukkan nilai 'antara'. IS NOT NULL menunjukkan kondisi nilai field tidak null.

EMPLOYEE_NAME	MANAGER_NAME	DEPARTMENT_NAME	HIRE_DATE	BONUS	COMMISSION_PCT
Eleni Zlotkey	Steven King	Sales	2000-01-29	1500	0.20
Jonathon Taylor	Eleni Zlotkey	Sales	1998-03-24	1250	0.20

2. Tampilkan seluruh data nomer identitas karyawan dan nama lengkapnya yang bekerja pada departemen yang berlokasi selain di kota Seattle terurut berdasarkan nomer identitasnya dari yang terbesar!

```
GoldenZero.session.sql
  ▶ Run on active connection | ≡ Select block
1  SELECT e.employee_id, CONCAT(e.first_name, CONCAT(' ', e.last_name)) AS FULL_NAME
2  FROM employees e, departments d, locations l
3  WHERE e.department_id = d.department_id AND d.location_id = l.location_id
4  AND city != 'Seattle'
5  ORDER BY employee_id DESC
```

employee_id	FULL_NAME
abc Filter...	abc Filter...
202	Pat Fay
201	Michael Hartstein
176	Jonathon Taylor
174	Ellen Abel
149	Eleni Zlotkey
144	Peter Vargas
143	Randall Matos
142	Curtis Davies
141	Trenna Rajs
124	Kevin Mourgoss
107	Diana Lorentz
104	Bruce Ernst
103	Alexander Hunold

	EMPLOYEE_ID	FULL_NAME
▶	206	William Gietz
	205	Shelley Higgins
	202	Pat Fay
	201	Michael Hartstein
	200	Jennifer Whalen
	176	Jonathon Taylor
	174	Ellen Abel
	149	Eleni Zlotkey
	144	Peter Vargas
	143	Randall Matos
	142	Curtis Davies
	141	Trenna Rajs
	124	Kevin Mourgoss
	107	Diana Lorentz
	104	Bruce Ernst
	103	Alexander Hunold
	102	Lex De Haan
	101	Neena Kochhar
	100	Steven King

Output soal salah

Bukti:

employee_id	FULL_NAME	city
abc Filter...	abc Filter...	abc Filter...
200	Jennifer Whalen	Seattle
100	Steven King	Seattle
101	Neena Kochhar	Seattle
102	Lex De Haan	Seattle
205	Shelley Higgins	Seattle
206	William Gietz	Seattle

Seattle memiliki location\_id = 1700

1700	2004 Charade Rd	98199	Seattle	Washington	US
------	-----------------	-------	---------	------------	----

employee_id	FULL_NAME	location_id	city
abc Filter...	abc Filter...	abc Filter...	abc Filter...
206	William Gietz	1700	Seattle
205	Shelley Higgins	1700	Seattle
202	Pat Fay	1800	Toronto
201	Michael Hartstein	1800	Toronto
200	Jennifer Whalen	1700	Seattle
176	Jonathon Taylor	2500	Oxford
174	Ellen Abel	2500	Oxford
149	Eleni Zlotkey	2500	Oxford
144	Peter Vargas	1500	South San Francisco
143	Randall Matos	1500	South San Francisco
142	Curtis Davies	1500	South San Francisco
141	Trenna Rajs	1500	South San Francisco
124	Kevin Mourgous	1500	South San Francisco
107	Diana Lorentz	1400	Southlake
104	Bruce Ernst	1400	Southlake
103	Alexander Hunold	1400	Southlake
102	Lex De Haan	1700	Seattle
101	Neena Kochhar	1700	Seattle
100	Steven King	1700	Seattle

Kesimpulan : Output di soal menampilkan seluruh data tanpa pengecekan city != Seattle

3. Tampilkan nama job, jumlah masing-masing karyawan dari setiap job, nama departemen, dan total gajinya. Urutkan berdasarkan id job.

```

Run on active connection | Select block
SELECT j.JOB_TITLE, d.department_name, COUNT(e.employee_id) AS jumlah_karyawan, SUM(salary) AS total_gaji
FROM jobs j, departments d, employees e
WHERE j.job_id = e.job_id AND e.department_id = d.department_id
GROUP BY job_title, department_name

```

JOB_TITLE	department_name	jumlah_karyawan	total_gaji
abc Filter...	abc Filter...	abc Filter...	abc Filter...
Accounting Manager	Accounting	1	12000.00
Administration Assistant	Administration	1	4400.00
Administration Vice President	Executive	2	34000.00
Marketing Manager	Marketing	1	13000.00
Marketing Representative	Marketing	1	6000.00
President	Executive	1	24000.00
Programmer	IT	3	19200.00
Public Accountant	Accounting	1	8300.00
Sales Manager	Sales	1	10500.00
Sales Representative	Sales	2	19600.00
Stock Clerk	Shipping	4	11700.00
Stock Manager	Shipping	1	5800.00

GROUP BY menunjukkan bagian yang akan dihitung. Dari satu departemen dapat menghitung jumlah karyawan dan jumlah gaji.

JOB_TITLE	DEPARTMENT_NAME	JUMLAH_KARYAWAN	TOTAL_GAJI
Accounting Manager	Accounting	1	12000.00
Administration Assistant	Administration	1	4400.00
Administration Vice President	Executive	2	34000.00
Marketing Manager	Marketing	1	13000.00
Marketing Representative	Marketing	1	6000.00
President	Executive	1	24000.00
Programmer	IT	3	19200.00
Public Accountant	Accounting	1	8300.00
Sales Manager	Sales	1	10500.00
Sales Representative	Sales	2	19600.00
Stock Clerk	Shipping	4	11700.00
Stock Manager	Shipping	1	5800.00

4. Tampilkan nama depan karyawan, nama departemen, nama region dan bonus karyawan jika bonus tidak null.

FIRST_NAME	DEPARTMENT_NAME	REGION_NAME	BONUS
Eleni	Sales	Europe	1500
Ellen	Sales	Europe	1700
Jonathon	Sales	Europe	1250

```

Run on active connection | Select block
SELECT e.first_name, d.department_name, r.region_name, e.bonus
FROM employees e, departments d, locations l, regions r, countries c
WHERE e.department_id = d.department_id AND d.location_id = l.location_id AND l.country_id = c.country_id AND c.region_id = r.region_id
AND e.bonus IS NOT NULL

```

Table regions merupakan table dengan kelas terbawah dibanding dengan table employees jadi dilakukan equality field terus menerus dari employees sampai region.

```

WHERE e.department_id = d.department_id AND d.location_id = l.location_id
AND l.country_id = c.country_id AND c.region_id = r.region_id

```

first_name	department_name	region_name	bonus
abc Filter...	abc Filter...	abc Filter...	abc Filter...
Eleni	Sales	Europe	1500
Ellen	Sales	Europe	1700
Jonathon	Sales	Europe	1250
Eleni	Sales	Americas	1500
Ellen	Sales	Americas	1700
Jonathon	Sales	Americas	1250
Eleni	Sales	Asia	1500
Ellen	Sales	Asia	1700
Jonathon	Sales	Asia	1250
Eleni	Sales	Middle East and Africa	1500
Ellen	Sales	Middle East and Africa	1700
Jonathon	Sales	Middle East and Africa	1250