

**TUGAS PRAKTIKUM BASIS DATA
(SDT.PBD13)**



**Disusun Untuk Memenuhi Tugas
Mata Kuliah:
Praktikum Basis Data**

**Oleh:
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**PROGRAM STUDI D4 SAINS DATA TERAPAN
POLITEKNIK ELEKTRONIKA NEGERI SURABAYA**

1. Tampilkan nilai tertinggi, terendah, jumlah dan rata-rata gaji dari seluruh pegawai. Beri judul kolom MAKSIMUM MINIMUM TOTAL RATA2.

The screenshot shows the pgAdmin 4 interface. The left pane displays the database structure with 'employees' selected. The central pane shows a SQL query:

```
72 // min, maks, total, rata2  
73 SELECT MAX(salary) AS Maximum, MIN(salary) AS Minimum,  
74 SUM(salary) AS Total, AVG(salary) AS rata_rata FROM employees;  
75  
76 SELECT job_id,  
77 MAX(salary) AS Maximum,  
78 MIN(salary) AS Minimum,  
79 SUM(salary) AS Total,  
80 AVG(salary) AS rata_rata  
81 FROM employees  
82 GROUP BY job_id;
```

The 'Data Output' pane shows the results of the first query:

	maximum numeric	minimum numeric	total numeric	rata_rata numeric
1	24000.00	2100.00	691400.00	6461.6822429906542056

The status bar indicates 'Total rows: 1 of 1' and 'Query complete 00:00:00.159'.

2. Tampilkan nilai tertinggi, terendah, jumlah dan rata-rata gaji pada tiap-tiap jenis pekerjaan yang ada.. Beri judul kolom MAKSIMUM MINIMUM TOTAL RATA2.

The screenshot shows the pgAdmin 4 interface. The left pane displays the database structure with 'employees' selected. The central pane shows a SQL query:

```
74  
75 SELECT job_id,  
76 MAX(salary) AS Maximum,  
77 MIN(salary) AS Minimum,  
78 SUM(salary) AS Total,  
79 AVG(salary) AS rata_rata  
80 FROM employees  
81 GROUP BY job_id;  
82  
83 SELECT job_id, COUNT(job_id) FROM employees GROUP BY job_id;  
84
```

The 'Data Output' pane shows the results of the first query:

	job_id character varying (10)	maximum numeric	minimum numeric	total numeric	rata_rata numeric
1	SH_CLERK	4200.00	2500.00	64300.00	3215.0000000000000000
2	AD_VP	17000.00	17000.00	34000.00	17000.00000000000000
3	SA_MAN	14000.00	10500.00	61000.00	12200.00000000000000
4	PU_MAN	11000.00	11000.00	11000.00	11000.00000000000000
5	IT_PROG	9000.00	4200.00		
6	ST_CLERK	3600.00	2100.00		

The status bar indicates 'Total rows: 19 of 19' and 'Query complete 00:00:00.185'. A green message box at the bottom right states: 'Successfully run. Total query runtime: 185 msec. 19 rows affected.'

3. Tampilkan nama pekerjaan dan jumlah pegawai yang bekerja pada tiap-tiap pekerjaan tersebut !

The screenshot shows the pgAdmin 4 interface. In the Object Explorer, the 'employees' table is selected. The SQL editor contains the following query:

```

SELECT job_id, COUNT(job_id) FROM employees GROUP BY job_id;

SELECT MAX(salary) - MIN(salary) AS Perbedaan FROM employees;

SELECT d.department_name AS department,
       l.city AS location,
       COUNT(e.employee_id) AS jumlah_pegawai,
       AVG(s.salary) AS rata_rata
FROM employees e
JOIN departments d ON e.department_id = d.department_id
JOIN locations l ON e.location_id = l.location_id
GROUP BY d.department_name, l.city;

```

The Data Output pane shows the results of the first query:

job_id	count
SH_CLERK	20
AD_VP	2
SA_MAN	5
PU_MAN	1
IT_PROG	5
ST_CLERK	20

A status message at the bottom indicates: "Successfully run. Total query runtime: 140 msec. 19 rows affected."

4. Buat query yang menampilkan perbedaan antara nilai terendah dan nilai tertinggi dari gaji pegawai, beri judul kolom PERBEDAAN.

The screenshot shows the pgAdmin 4 interface. The SQL editor contains the following query:

```

SELECT MAX(salary) - MIN(salary) AS Perbedaan FROM employees;

```

The Data Output pane shows the result of the query:

perbedaan
21900.00

A status message at the bottom indicates: "Successfully run. Total query runtime: 120 msec. 1 rows affected."

5. Buat query untuk menampilkan nama department, lokasinya, jumlah pegawai yang bekerja, dan rata-rata gaji pada department tersebut. Bulatkan rata-rata gaji ke 2 angka desimal.

pgAdmin 4

File Object Tools Help

Object Explorer

- Tables (7)
 - countries
 - departments
 - employees
 - Columns (11)
 - employee_id
 - first_name
 - last_name
 - email
 - phone_number
 - hire_date
 - job_id
 - salary
 - commission_pct
 - manager_id
 - department_id
 - Constraints
 - Indexes
 - RLS Policies
 - Rules
 - Triggers
 - job_history
 - jobs
 - locations

Properties SQL HR/postgre... HR/postgres@... belajar/postgre... HR/postgres@... belajar/p

HR/postgres@PostgreSQL 15

No limit

Query Query History Scratch Pad

```
87 SELECT d.department_name AS department,
88        l.city AS location,
89        COUNT(e.employee_id) AS jumlah_pegawai,
90        ROUND(AVG(e.salary), 2) AS rata_rata_gaji
91 FROM departments d
92 JOIN employees e ON d.department_id = e.department_id
93 JOIN locations l ON d.location_id = l.location_id
94 GROUP BY d.department_name, l.city
95 ORDER BY d.department_name;
96
```

Data Output Messages Notifications

	department character varying (30)	location character varying (30)	jumlah_pegawai bigint	rata_rata_gaji numeric	
1	Accounting	Seattle	2	10150.00	
2	Administration	Seattle	1	4400.00	
3	Executive	Seattle	3	19333.33	
4	Finance	Seattle	6	8600.00	
5	Human Resources	London	1	6500.00	
6	IT	Southlake	5	5760.00	
Total rows: 11 of 11					Query complete 00:00:00.107

Ln 86, Col 1

34°C Sebagian cerah

Search

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