# TUGAS 2
# BASIS DATA LANJUT



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**PROGRAM STUDI TEKNIK INFORMATIKA**

**FAKULTAS ILMU KOMPUTER**

**UPN "VETERAN" JAWA TIMUR**

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Tabel departments:

Tabel employees:

1. Query untuk nomor 1

```sql
SELECT first_name, last_name, department_id, salary
FROM employees
WHERE department_id IN
    (SELECT department_id
     FROM employees
     WHERE commission_pct > 0)
AND salary IN
    (SELECT salary
     FROM employees
     WHERE commission_pct > 0);
```

2. Query untuk nomor 2

```sql
SELECT e.first_name, e.last_name, d.department_name, e.salary
FROM employees AS e, departments AS d
WHERE e.department_id = d.department_id
AND e.salary IN
    (SELECT e.salary
     FROM employees AS e, departments AS d
     WHERE d.location_id = 1700)
AND e.commission_pct IN
    (SELECT e.commission_pct
     FROM employees AS e, departments AS d
     WHERE d.location_id = 1700);
```

3. Query untuk nomor 3

```sql
1 SELECT first_name, last_name, hire_date, salary
2 FROM employees
3 WHERE salary IN
4     (SELECT salary
5     FROM employees
6     WHERE last_name = 'Kochhar')
7 AND commission_pct IN
8     (SELECT commission_pct
9     FROM employees
10    WHERE last_name = 'Kochhar')
11 EXCEPT
12 SELECT first_name, last_name, hire_date, salary
13 FROM employees
14 WHERE last_name = 'Kochhar';
```

4. Query untuk nomor 4

```sql
1 SELECT e.employee_id, e.first_name, e.last_name
2 FROM employees AS e, locations AS l, departments AS d
3 WHERE e.department_id = d.department_id
4 AND d.location_id = l.location_id
5 AND l.city LIKE 'T%'
```

5. Query untuk nomor 5

```sql
1 SELECT e.first_name, e.last_name, e.salary, e.department_id, AVG(salary) AS avg_salary
2 FROM employees e
3 WHERE e.salary >
4     (SELECT AVG(salary)
5     FROM employees
6     WHERE department_id = e.department_id)
7 GROUP BY e.department_id;
```

6. Query untuk nomor 6

   a. Menggunakan operator NOT EXISTS

```sql
1 SELECT * FROM employees e
2 WHERE NOT EXISTS (
3     SELECT * FROM employees e2
4     WHERE e2.manager_id = e.employee_id
5 );
```

   b. Menggunakan operator NOT IN

```sql
1 SELECT *
2 FROM employees
3 WHERE NOT EMPLOYEE_ID IN
4     (SELECT MANAGER_ID
5      FROM employees);
```

7. Query untuk nomor 7

```sql
1 SELECT first_name, last_name
2 FROM employees e
3 WHERE salary <
4     (SELECT AVG(salary)
5     FROM employees
6     WHERE department_id = e.department_id);
```

8. Query untuk nomor 8

```sql
1 SELECT e.first_name, e.last_name
2 FROM employees e
3 JOIN employees e2 ON e2.department_id = e.department_id
4 AND e2.hire_date > e.hire_date
5 AND e2.salary > e.salary
6 GROUP BY e.first_name, e.last_name;
```

9. Query untuk nomor 9

```sql
1 SELECT e.EMPLOYEE_ID, e.FIRST_NAME, e.LAST_NAME,
2     (SELECT d.DEPARTMENT_NAME
3     FROM departments d
4     WHERE d.DEPARTMENT_ID = e.DEPARTMENT_ID)
5 FROM employees e;
```

10. Query untuk nomor 10

```sql
WITH SUMMARY AS (
    SELECT d.department_name, SUM(e.salary) AS total_gaji
    FROM employees e
    ON d.department_id = e.department_id
    GROUP BY d.department_name
)
SELECT department_name
FROM SUMMARY
WHERE total_gaji >
    (SELECT SUM(salary) FROM employees) / 8;
```

11. Query untuk nomor 11

```sql
SELECT * FROM employees
WHERE SALARY >
    (SELECT MAX(SALARY)
     FROM employees
     WHERE JOB_ID = 'SA_MAN')
ORDER BY SALARY DESC;
```