



1. Buatlah DDL dari tabel EMPLOYEES lengkap dengan semua constraint-nya!

```
CREATE TABLE EMPLOYEES (  
    EMPLOYEE_ID NUMBER(6) PRIMARY KEY,  
    FIRST_NAME VARCHAR(20),  
    LAST_NAME VARCHAR(25) NOT NULL,  
    EMAIL VARCHAR(25) UNIQUE NOT NULL,  
    PHONE_NUMBER VARCHAR(20),  
    HIRE_DATE DATE NOT NULL,  
    JOB_ID VARCHAR(10) NOT NULL,  
    SALARY NUMBER(8,2),  
    COMMISSION_PCT NUMBER(2,2),  
    MANAGER_ID NUMBER(6),  
    DEPARTMENT_ID NUMBER(4),  
    BONUS VARCHAR(5),  
    FOREIGN KEY (JOB_ID) REFERENCES JOBS(JOB_ID),  
    FOREIGN KEY (DEPARTMENT_ID) REFERENCES  
DEPARTMENTS(DEPARTMENT_ID),  
    FOREIGN KEY (MANAGER_ID) REFERENCES EMPLOYEES(EMPLOYEE_ID)  
);
```

2. Tampilkan data karyawan (identitas dan nama lengkap) dengan nama departemennya, nama manajernya, nama pekerjaannya, kapan dia mulai dan berhenti bekerja. Nama karyawan ini mengandung kata "Adhy", terurut berdasarkan nama lengkapnya!

```
SELECT  
    e.EMPLOYEE_ID,  
    CONCAT(e.FIRST_NAME, ' ', e.LAST_NAME) AS FULL_NAME,  
    d.DEPARTMENT_NAME,  
    CONCAT(m.FIRST_NAME, ' ', m.LAST_NAME) AS MANAGER_NAME,  
    j.JOB_TITLE,  
    jh.START_DATE,  
    jh.END_DATE  
FROM EMPLOYEES e  
JOIN DEPARTMENTS d ON e.DEPARTMENT_ID = d.DEPARTMENT_ID  
JOIN JOBS j ON e.JOB_ID = j.JOB_ID  
JOIN EMPLOYEES m ON e.MANAGER_ID = m.EMPLOYEE_ID  
JOIN JOB_HISTORY jh ON e.EMPLOYEE_ID = jh.EMPLOYEE_ID  
WHERE CONCAT(e.FIRST_NAME, ' ', e.LAST_NAME) LIKE '%Adhy%'  
ORDER BY CONCAT(e.FIRST_NAME, ' ', e.LAST_NAME);
```

3. Berbasis pada data karyawan, tampilkan data Nama Pekerjaan, Jumlah Karyawan, Rataan Salary, selain departemen "Produksi" yang dikelompokkan berdasarkan Nama Pekerjaannya. Tampilkan hanya kelompok yang memiliki minimal 3 jumlah karyawannya! (gunakan juga subquery pada soal ini)

```
SELECT
    j.JOB_TITLE AS Nama_Pekerjaan,
    COUNT(e.EMPLOYEE_ID) AS Jumlah_Karyawan,
    AVG(e.SALARY) AS Rataan_Salary
FROM EMPLOYEES e
JOIN JOBS j ON e.JOB_ID = j.JOB_ID
JOIN DEPARTMENTS d ON e.DEPARTMENT_ID = d.DEPARTMENT_ID
WHERE e.DEPARTMENT_ID NOT IN (SELECT DEPARTMENT_ID
                              FROM DEPARTMENTS
                              WHERE DEPARTMENT_NAME = 'Produksi')
GROUP BY j.JOB_TITLE
HAVING COUNT(e.EMPLOYEE_ID) >= 3;
```

4. Berdasarkan soal nomor 3, gunakan "UNION" untuk menambahkan 1 baris di akhir hasil tabelnya, yaitu: Total, jumlah dari Jumlah Karyawannya, dan jumlah Rataan Salary-nya.

```
SELECT
    j.JOB_TITLE AS Nama_Pekerjaan,
    COUNT(e.EMPLOYEE_ID) AS Jumlah_Karyawan,
    AVG(e.SALARY) AS Rataan_Salary
FROM EMPLOYEES e
JOIN JOBS j ON e.JOB_ID = j.JOB_ID
JOIN DEPARTMENTS d ON e.DEPARTMENT_ID = d.DEPARTMENT_ID
WHERE e.DEPARTMENT_ID NOT IN (SELECT DEPARTMENT_ID
                              FROM DEPARTMENTS
                              WHERE DEPARTMENT_NAME = 'Produksi')
GROUP BY j.JOB_TITLE
HAVING COUNT(e.EMPLOYEE_ID) >= 3

UNION

SELECT
    'Total' AS Nama_Pekerjaan,
    COUNT(e.EMPLOYEE_ID) AS Jumlah_Karyawan,
    AVG(e.SALARY) AS Rataan_Salary
FROM EMPLOYEES e
JOIN JOBS j ON e.JOB_ID = j.JOB_ID
JOIN DEPARTMENTS d ON e.DEPARTMENT_ID = d.DEPARTMENT_ID
WHERE d.DEPARTMENT_NAME <> 'Produksi'
HAVING COUNT(e.EMPLOYEE_ID) >= 3;
```