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KELAS: Sistem Informasi A'22

MATKUL: Basis Data Lanjut

1. SELECT table_name FROM user_tables WHERE SUBSTR(table_name, 1, 2) = 'JO';

| TABLE_NAME |
|-------------|
| JOBS |
| JOB_GRADES |
| JOB_HISTORY |

3 rows returned in 0.01 seconds [Download](#)

2. SELECT SUBSTR(first_name, 0,1) || ' ' || last_name AS "Employee Names" FROM employees;

| Employee Names |
|----------------|
| E Abel |
| C Davies |
| L De Haan |
| B Ernst |
| P Fay |

3. SELECT CONCAT(first_name, CONCAT(' ', last_name)) AS "Employee Name", email FROM employees WHERE email LIKE ('%IN%')

| Employee Name | EMAIL |
|-----------------|----------|
| Shelley Higgins | SHIGGINS |
| Steven King | SKING |

2 rows returned in 0.02 seconds [Download](#)

4. SELECT MIN(last_name) AS "First Last Name", MAX(last_name) AS "Last Last Name" FROM employees;

| First Last Name | Last Last Name |
|-----------------|----------------|
| Abel | Zlotkey |

1 rows returned in 0.01 seconds [Download](#)

5. SELECT TO_CHAR((salary/30)*7, '\$99999.99') "Weekly Salary" FROM employees WHERE ((salary/30)*7) BETWEEN 700 AND 30006

| Weekly Salary |
|---------------|
| \$5600.00 |
| \$3966.67 |
| \$3966.67 |
| \$1026.67 |
| \$2800.00 |

6. SELECT SUBSTR(e.first_name, 0, 1) || ' ' || e.last_name AS "Employee Name", j.job_title AS "Jobs"
FROM employees e, jobs j WHERE e.job_id = j.job_id ORDER BY job_title;

| Employee Name | Jobs |
|---------------|-------------------------------|
| S Higgins | Accounting Manager |
| J Whalen | Administration Assistant |
| N Kochhar | Administration Vice President |
| L De Haan | Administration Vice President |
| M Hartstein | Marketing Manager |

7. SELECT SUBSTR(e.first_name, 0, 1) || ' ' || e.last_name AS "Employee Name", j.job_title AS "Jobs",
j.min_salary || ' - ' || j.max_salary "Salary Range", e.salary "Employee's Salary" FROM employees e, jobs
j WHERE e.job_id = j.job_id ORDER BY job_title;

| Employee Name | Jobs | Salary Range | Employee's Salary |
|---------------|-------------------------------|---------------|-------------------|
| S Higgins | Accounting Manager | 8200 - 16000 | 12000 |
| J Whalen | Administration Assistant | 3000 - 6000 | 4400 |
| N Kochhar | Administration Vice President | 15000 - 30000 | 17000 |
| L De Haan | Administration Vice President | 15000 - 30000 | 17000 |
| M Hartstein | Marketing Manager | 9000 - 15000 | 13000 |

8. SELECT SUBSTR(first_name, 0, 1) || ' ' || last_name AS "Employee Name", department_name AS
"Department Name" FROM employees JOIN departments USING (manager_id, department_id) ORDER
BY employee_id

| Employee Name | Department Name |
|---------------|-----------------|
| N Kochhar | Executive |
| L De Haan | Executive |
| B Ernst | IT |
| D Lorentz | IT |
| T Rajs | Shipping |

9. SELECT SUBSTR(first_name, 0, 1) || ' ' || last_name AS "Employee Name", department_name AS
"Department Name" FROM employees JOIN departments USING (department_id);

| Employee Name | Department Name |
|---------------|-----------------|
| E Abel | Sales |
| C Davies | Shipping |
| L De Haan | Executive |
| B Ernst | IT |
| P Fay | Marketing |

10. SELECT DECODE (manager_id, null, 'Nobody' , 'Somebody') "Works for", last_name FROM employees;

| Works for | LAST_NAME |
|-----------|-----------|
| Nobody | King |
| Somebody | Kochhar |
| Somebody | De Haan |
| Somebody | Whalen |
| Somebody | Higgins |

11. SELECT SUBSTR(first_name, 1, 1) || ' ' || last_name "Employee Name", salary "Salary", DECODE(commission_pct, NULL, 'No', 'Yes') "Commission" FROM employees;

| Employee Name | Salary | Commission |
|---------------|--------|------------|
| S King | 24000 | No |
| N Kochhar | 17000 | No |
| L De Haan | 17000 | No |
| J Whalen | 4400 | No |
| S Higgins | 12000 | No |

12. SELECT last_name, department_name, city, state_province FROM employees RIGHT OUTER JOIN departments USING(department_id) JOIN locations USING (location_id) ORDER BY last_name;

| LAST_NAME | DEPARTMENT_NAME | CITY | STATE_PROVINCE |
|-----------|-----------------|---------------------|----------------|
| Abel | Sales | Oxford | Oxford |
| Davies | Shipping | South San Francisco | California |
| De Haan | Executive | Seattle | Washington |
| Ernst | IT | Southlake | Texas |
| Fay | Marketing | Toronto | Ontario |

13. SELECT first_name, last_name, COALESCE(commission_pct, manager_id, -1) "Which function???" FROM employees;

| FIRST_NAME | LAST_NAME | Which function??? |
|------------|-----------|-------------------|
| Steven | King | -1 |
| Neena | Kochhar | 100 |
| Lex | De Haan | 100 |
| Jennifer | Whalen | 101 |
| Shelley | Higgins | 101 |

14. SELECT DISTINCT e.last_name AS "Last Name", e.salary AS "Salary", jg.grade_level AS "Grade Level" FROM employees e JOIN job_grades jg ON e.salary BETWEEN jg.lowest_sal AND jg.highest_sal WHERE e.department_id > 50 ORDER BY jg.grade_level, e.salary;

| Last Name | Salary | Grade Level |
|-----------|--------|-------------|
| Lorentz | 4200 | B |
| Ernst | 6000 | C |
| Gietz | 8300 | C |
| Taylor | 8600 | C |
| Hunold | 9000 | C |

15. SELECT last_name, department_name FROM employees FULL OUTER JOIN departments USING(department_id) ORDER BY department_id;

| LAST_NAME | DEPARTMENT_NAME |
|-----------|-----------------|
| Whalen | Administration |
| Hartstein | Marketing |
| Fay | Marketing |
| Mourgos | Shipping |
| Rajs | Shipping |

16. SELECT LEVEL "Position", last_name, prior last_name "Manager_Name" FROM employees START WITH employee_id = 100 CONNECT BY PRIOR employee_id = manager_id;

| Position | LAST_NAME | Manager_Name |
|----------|-----------|--------------|
| 1 | King | - |
| 2 | Kochhar | King |
| 3 | Whalen | Kochhar |
| 3 | Higgins | Kochhar |
| 4 | Gietz | Higgins |

17. SELECT min(hire_date) AS "lowest", max(hire_date) AS "highest", count(employee_id) AS "No_Of_Employees" FROM employees;

| lowest | highest | No_Of_Employees |
|-------------|-------------|-----------------|
| 17-Jun-1987 | 29-Jan-2000 | 20 |

18. SELECT d.department_name, SUM(e.salary) "Salaries" FROM employees e JOIN departments d using (department_id) HAVING sum(e.salary) BETWEEN 15000 AND 31000 GROUP BY department_id, department_name ORDER BY sum(e.salary);

| DEPARTMENT_NAME | Salaries |
|-----------------|----------|
| Shipping | 17500 |
| Marketing | 19000 |
| IT | 19200 |
| Accounting | 20300 |
| Sales | 30100 |

19. SELECT d.department_name AS "Department Name",d.manager_id AS "Manager ID",e.last_name AS "Manager Name",AVG(e.salary) AS "Average Salary" FROM departments d JOIN employees e ON d.manager_id = e.employee_id GROUP BY d.department_name, d.manager_id, e.last_name ORDER BY "Average Salary" ASC;

| Department Name | Manager ID | Manager Name | Average Salary |
|-----------------|------------|--------------|----------------|
| Administration | 200 | Whalen | 4400 |
| Shipping | 124 | Mourgos | 5800 |
| IT | 103 | Hunold | 9000 |
| Sales | 149 | Zlotkey | 10500 |
| Accounting | 205 | Higgins | 12000 |

20. SELECT ROUND(MAX(avg_salary), 0) AS highest_average_salary FROM (SELECT AVG(salary) AS avg_salary FROM employees GROUP BY department_id);

| HIGHEST_AVERAGE_SALARY |
|------------------------|
| 19333 |

1 rows returned in 0.00 seconds [Download](#)

21. SELECT d.department_name, SUM(e.salary) AS monthly_cost FROM departments d LEFT JOIN employees e ON d.department_id = e.department_id GROUP BY d.department_name ORDER BY monthly_cost ASC;

| DEPARTMENT_NAME | MONTHLY_COST |
|-----------------|--------------|
| Administration | 4400 |
| Shipping | 17500 |
| Marketing | 19000 |
| IT | 19200 |
| Accounting | 20300 |

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22. SELECT COALESCE(d.department_name, 'All Departments') AS department_name, e.job_id AS JOB_TITLE, SUM(e.salary) AS monthly_cost FROM departments d RIGHT JOIN employees e ON d.department_id = e.department_id GROUP BY GROUPING SETS ((d.department_name, e.job_id), ('All Departments', e.job_id)) ORDER BY department_name, job_id;

| DEPARTMENT_NAME | JOB_TITLE | MONTHLY_COST |
|-----------------|------------|--------------|
| Accounting | AC_ACCOUNT | 8300 |
| Accounting | AC_MGR | 12000 |
| Administration | AD_ASST | 4400 |
| All Departments | AC_ACCOUNT | 8300 |
| All Departments | AC_MGR | 12000 |

23. SELECT d.department_name, e.job_id AS job_title, SUM(e.salary) AS monthly_cost FROM departments d JOIN employees e ON d.department_id = e.department_id GROUP BY GROUPING SETS ((d.department_name, e.job_id)) ORDER BY d.department_name, e.job_id;

| DEPARTMENT_NAME | JOB_TITLE | MONTHLY_COST |
|-----------------|------------|--------------|
| Accounting | AC_ACCOUNT | 8300 |
| Accounting | AC_MGR | 12000 |
| Administration | AD_ASST | 4400 |
| All Departments | AC_ACCOUNT | 8300 |
| All Departments | AC_MGR | 12000 |

24. SELECT d.department_name, e.job_id, SUM(e.salary) AS monthly_salary_cost, CASE WHEN GROUPING(d.department_name) = 1 THEN 'Yes' ELSE 'No' END AS department_id_used, CASE WHEN GROUPING(e.job_id) = 1 THEN 'Yes' ELSE 'No' END AS job_id_used FROM departments d JOIN employees e ON d.department_id = e.department_id GROUP BY GROUPING SETS ((d.department_name, e.job_id), (d.department_name), (e.job_id)) ORDER BY d.department_name, e.job_id;

| DEPARTMENT_NAME | JOB_ID | MONTHLY_SALARY_COST | DEPARTMENT_ID_USED | JOB_ID_USED |
|-----------------|------------|---------------------|--------------------|-------------|
| Accounting | AC_ACCOUNT | 8300 | No | No |
| Accounting | AC_MGR | 12000 | No | No |
| Accounting | - | 20300 | No | Yes |
| Administration | AD_ASST | 4400 | No | No |
| Administration | - | 4400 | No | Yes |

25. SELECT d.department_name, e.job_id, l.city, SUM(e.salary) FROM employees e JOIN departments d ON e.department_id = d.department_id JOIN locations l ON d.location_id = l.location_id GROUP BY GROUPING SETS ((d.department_name, e.job_id), (l.city)) ORDER BY d.department_name, e.job_id, l.city;

| DEPARTMENT_NAME | JOB_ID | CITY | SUM(E.SALARY) |
|-----------------|------------|------|---------------|
| Accounting | AC_ACCOUNT | - | 8300 |
| Accounting | AC_MGR | - | 12000 |
| Administration | AD_ASST | - | 4400 |
| Executive | AD_PRES | - | 24000 |
| Executive | AD_VP | - | 34000 |

26. WITH EmployeeData AS (SELECT SUBSTR(e.first_name, 1, 1) || ' ' || e.last_name AS "Employee Name", e.department_id AS "Department ID", NULL AS "Department Name", NULL AS "City" FROM employees e UNION ALL SELECT NULL AS "Employee Name", d.department_id AS "Department ID", d.department_name AS "Department Name", NULL AS "City" FROM departments d UNION ALL SELECT NULL AS "Employee Name", NULL AS "Department ID", NULL AS "Department Name", l.city AS "City" FROM locations l) SELECT * FROM EmployeeData ORDER BY "Employee Name" ASC;

| Employee Name | Department ID | Department Name | City |
|---------------|---------------|-----------------|------|
| A Hunold | 60 | - | - |
| B Ernst | 60 | - | - |
| C Davies | 50 | - | - |
| D Lorentz | 60 | - | - |
| E Abel | 80 | - | - |

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27. SELECT SUBSTR(e.first_name, 1, 1) || ' ' || e.last_name AS "Employee Name", e.salary AS "Salary", d.department_name AS "Department Name" FROM employees e INNER JOIN departments d ON e.department_id = d.department_id WHERE e.salary > (SELECT AVG(salary) FROM employees WHERE department_id = e.department_id);20

| Employee Name | Salary | Department Name |
|---------------|--------|-----------------|
| K Mourgos | 5800 | Shipping |
| E Zlotkey | 10500 | Sales |
| E Abel | 11000 | Sales |
| M Hartstein | 13000 | Marketing |
| S Higgins | 12000 | Accounting |

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