

SOLUSI LATIHAN BAB 01 NO 06

```
DESCRIBE departments
```

```
SELECT *  
FROM departments;
```

SOLUSI LATIHAN BAB 01 NO 07

```
DESCRIBE employees
```

```
SELECT employee_id, last_name, job_id, hire_date StartDate  
FROM employees;
```

SOLUSI LATIHAN BAB 01 NO 08

```
SELECT employee_id, last_name, job_id, hire_date StartDate  
FROM employees;
```

SOLUSI LATIHAN BAB 01 NO 09

```
SELECT DISTINCT job_id  
FROM employees;
```

SOLUSI LATIHAN BAB 01 NO 10

```
SELECT employee_id "Emp #", last_name "Employee",  
       job_id "Job", hire_date "Hire Date"  
FROM employees;
```

SOLUSI LATIHAN BAB 01 NO 11

```
SELECT last_name||', ' || job_id "Employee and Title"  
FROM employees;
```

SOLUSI LATIHAN BAB 01 NO 12

```
SELECT employee_id || ',' || first_name || ',' || last_name  
       || ',' || email || ',' || phone_number || ',' || job_id  
       || ',' || manager_id || ',' || hire_date || ','  
       || salary || ',' || commission_pct || ',' || department_id  
       THE_OUTPUT  
FROM employees;
```

SOLUSI LATIHAN BAB 02 NO 01

```
SELECT last_name, salary
FROM employees
WHERE salary > 12000;
```

SOLUSI LATIHAN BAB 02 NO 02

```
SELECT last_name, department_id
FROM employees
WHERE employee_id = 176;
```

SOLUSI LATIHAN BAB 02 NO 03

```
SELECT last_name, salary
FROM employees
WHERE salary NOT BETWEEN 5000 AND 12000;
```

SOLUSI LATIHAN BAB 02 NO 04

```
SELECT last_name, job_id, hire_date
FROM employees
WHERE last_name IN ('Matos', 'Taylor')
ORDER BY hire_date;
```

SOLUSI LATIHAN BAB 02 NO 05

```
SELECT last_name, department_id
FROM employees
WHERE department_id IN (20, 50)
ORDER BY last_name ASC;
```

SOLUSI LATIHAN BAB 02 NO 06

```
SELECT last_name "Employee", salary "Monthly Salary"
FROM employees
WHERE salary BETWEEN 5000 AND 12000
AND department_id IN (20, 50);
```

SOLUSI LATIHAN BAB 02 NO 07

```
SELECT last_name, hire_date
FROM employees
WHERE hire_date LIKE '%94';
```

SOLUSI LATIHAN BAB 02 NO 08

```
SELECT last_name, job_id
FROM employees
WHERE manager_id IS NULL;
```

SOLUSI LATIHAN BAB 02 NO 09

```
SELECT last_name, salary, commission_pct
FROM employees
WHERE commission_pct IS NOT NULL
ORDER BY salary DESC, commission_pct DESC;
```

SOLUSI LATIHAN BAB 02 NO 10

```
SELECT last_name, salary
FROM employees
WHERE salary > &sal_amt;
```

SOLUSI LATIHAN BAB 02 NO 11

```
SELECT employee_id, last_name, salary, department_id
FROM employees
WHERE manager_id = &mgr_num
ORDER BY &order_col;
```

SOLUSI LATIHAN BAB 02 NO 12

```
SELECT last_name
FROM employees
WHERE last_name LIKE '__a%';
```

SOLUSI LATIHAN BAB 02 NO 13

```
SELECT last_name
FROM employees
WHERE last_name LIKE '%a%'
AND last_name LIKE '%e%';
```

SOLUSI LATIHAN BAB 02 NO 14

```
SELECT last_name, job_id, salary
FROM employees
WHERE job_id IN ('SA_REP', 'ST_CLERK')
AND salary NOT IN (2500, 3500, 7000);
```

SOLUSI LATIHAN BAB 02 NO 15

```
SELECT last_name "Employee", salary "Monthly Salary",
commission_pct
FROM employees
WHERE commission_pct = .20;
```

SOLUSI LATIHAN BAB 03 NO 01

```
SELECT sysdate "Date"
FROM dual;
```

SOLUSI LATIHAN BAB 03 NO 02

```
SELECT employee_id, last_name, salary,
       ROUND(salary * 1.155, 0) "New Salary"
FROM employees;
```

SOLUSI LATIHAN BAB 03 NO 03

```
SELECT employee_id, last_name, salary,
       ROUND(salary * 1.155, 0) "New Salary"
FROM employees;
```

SOLUSI LATIHAN BAB 03 NO 04

```
SELECT employee_id, last_name, salary,
       ROUND(salary * 1.155, 0) "New Salary",
       ROUND(salary * 1.155, 0) - salary "Increase"
FROM employees;
```

SOLUSI LATIHAN BAB 03 NO 05_A

```
SELECT INITCAP(last_name) "Name",
       LENGTH(last_name) "Length"
FROM employees
WHERE last_name LIKE 'J%'
OR last_name LIKE 'M%'
OR last_name LIKE 'A%'
ORDER BY last_name ;
```

SOLUSI LATIHAN BAB 03 NO 05_B

```
SELECT INITCAP(last_name) "Name",
       LENGTH(last_name) "Length"
FROM employees
WHERE last_name LIKE '&start_letter%'
ORDER BY last_name;
```

SOLUSI LATIHAN BAB 03 NO 06

```
SELECT last_name, ROUND(MONTHS_BETWEEN (
       SYSDATE, hire_date)) MONTHS_WORKED
FROM employees
ORDER BY MONTHS_WORKED;
```

SOLUSI LATIHAN BAB 03 NO 07

```
SELECT last_name || ' earns '  
      || TO_CHAR(salary, 'fm$99,999.00')  
      || ' monthly but wants '  
      || TO_CHAR(salary * 3, 'fm$99,999.00')  
      || '. ' "Dream Salaries"  
FROM   employees;
```

SOLUSI LATIHAN BAB 03 NO 08

```
SELECT last_name,  
       LPAD(salary, 15, '$') SALARY  
FROM   employees;
```

SOLUSI LATIHAN BAB 03 NO 09

```
SELECT last_name, hire_date,  
       TO_CHAR(NEXT_DAY(ADD_MONTHS(hire_date, 6), 'MONDAY'),  
              'fmDay, "the" Ddspth "of" Month, YYYY') REVIEW  
FROM   employees;
```

SOLUSI LATIHAN BAB 03 NO 10

```
SELECT last_name, hire_date,  
       TO_CHAR(hire_date, 'DAY') DAY  
FROM   employees  
ORDER BY TO_CHAR(hire_date - 1, 'd');
```

SOLUSI LATIHAN BAB 03 NO 11

```
SELECT last_name,  
       NVL(TO_CHAR(commission_pct), 'No Commission') COMM  
FROM   employees;
```

SOLUSI LATIHAN BAB 03 NO 12

```
SELECT rpad(last_name, 8) || ' ' ||  
       rpad(' ', salary/1000+1, '*')  
       EMPLOYEES_AND_THEIR_SALARIES  
FROM   employees  
ORDER BY salary DESC;
```

SOLUSI LATIHAN BAB 03 NO 13

```
SELECT job_id, decode (job_id,
                        'ST_CLERK', 'E',
                        'SA_REP', 'D',
                        'IT_PROG', 'C',
                        'ST_MAN', 'B',
                        'AD_PRES', 'A',
                        '0') GRADE
FROM employees;
```

SOLUSI LATIHAN BAB 03 NO 14

```
SELECT job_id, CASE job_id
                WHEN 'ST_CLERK' THEN 'E'
                WHEN 'SA_REP' THEN 'D'
                WHEN 'IT_PROG' THEN 'C'
                WHEN 'ST_MAN' THEN 'B'
                WHEN 'AD_PRES' THEN 'A'
                ELSE '0' END GRADE
FROM employees;
```

SOLUSI LATIHAN BAB 04 NO 04

```
SELECT ROUND(MAX(salary),0) "Maximum",  
       ROUND(MIN(salary),0) "Minimum",  
       ROUND(SUM(salary),0) "Sum",  
       ROUND(AVG(salary),0) "Average"  
FROM   employees;
```

SOLUSI LATIHAN BAB 04 NO 05

```
SELECT job_id, ROUND(MAX(salary),0) "Maximum",  
       ROUND(MIN(salary),0) "Minimum",  
       ROUND(SUM(salary),0) "Sum",  
       ROUND(AVG(salary),0) "Average"  
FROM   employees  
GROUP BY job_id;
```

SOLUSI LATIHAN BAB 04 NO 06_A

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

SOLUSI LATIHAN BAB 04 NO 06_B

```
SELECT job_id, COUNT(*)  
FROM   employees  
WHERE  job_id = '&job_title'  
GROUP BY job_id;
```

SOLUSI LATIHAN BAB 04 NO 07

```
SELECT COUNT(DISTINCT manager_id) "Number of Managers"  
FROM   employees;
```

SOLUSI LATIHAN BAB 04 NO 08

```
SELECT MAX(salary) - MIN(salary) DIFFERENCE  
FROM   employees;
```

SOLUSI LATIHAN BAB 04 NO 09

```
SELECT manager_id, MIN(salary)  
FROM   employees  
WHERE  manager_id IS NOT NULL  
GROUP BY manager_id  
HAVING MIN(salary) > 6000  
ORDER BY MIN(salary) DESC;
```

SOLUSI LATIHAN BAB 04 NO 10

```
SELECT  COUNT(*) total,
        SUM(DECODE(TO_CHAR(hire_date, 'YYYY'), 1995, 1, 0)) "1995",
        SUM(DECODE(TO_CHAR(hire_date, 'YYYY'), 1996, 1, 0)) "1996",
        SUM(DECODE(TO_CHAR(hire_date, 'YYYY'), 1997, 1, 0)) "1997",
        SUM(DECODE(TO_CHAR(hire_date, 'YYYY'), 1998, 1, 0)) "1998"
FROM    employees;
```

SOLUSI LATIHAN BAB 04 NO 11

```
SELECT  job_id "Job",
        SUM(DECODE(department_id , 20, salary)) "Dept 20",
        SUM(DECODE(department_id , 50, salary)) "Dept 50",
        SUM(DECODE(department_id , 80, salary)) "Dept 80",
        SUM(DECODE(department_id , 90, salary)) "Dept 90",
        SUM(salary) "Total"
FROM    employees
GROUP BY job_id;
```


SOLUSI LATIHAN BAB 05 NO 01

```
SELECT location_id, street_address, city, state_province, country_name
FROM   locations
NATURAL JOIN countries;
```

SOLUSI LATIHAN BAB 05 NO 02

```
SELECT last_name, department_id, department_name
FROM   employees
JOIN   departments
USING (department_id);
```

SOLUSI LATIHAN BAB 05 NO 03

```
SELECT e.last_name, e.job_id, e.department_id, d.department_name
FROM   employees e JOIN departments d
ON      (e.department_id = d.department_id)
JOIN   locations l
ON      (d.location_id = l.location_id)
WHERE  LOWER(l.city) = 'toronto';
```

SOLUSI LATIHAN BAB 05 NO 04

```
SELECT w.last_name "Employee", w.employee_id "EMP#",
       m.last_name "Manager", m.employee_id  "Mgr#"
FROM   employees w join employees m
ON      (w.manager_id = m.employee_id);
```

SOLUSI LATIHAN BAB 05 NO 05

```
SELECT w.last_name "Employee", w.employee_id "EMP#",
       m.last_name "Manager", m.employee_id  "Mgr#"
FROM   employees w
LEFT   OUTER JOIN employees m
ON      (w.manager_id = m.employee_id);
```

SOLUSI LATIHAN BAB 05 NO 06

```
SELECT e.department_id department, e.last_name employee,
       c.last_name colleague
FROM   employees e JOIN employees c
ON      (e.department_id = c.department_id)
WHERE  e.employee_id <> c.employee_id
ORDER BY e.department_id, e.last_name, c.last_name;
```

SOLUSI LATIHAN BAB 05 NO 07

```
DESC JOB_GRADES
```

```
SELECT e.last_name, e.job_id, d.department_name,  
       e.salary, j.grade_level  
FROM   employees e JOIN departments d  
ON      (e.department_id = d.department_id)  
JOIN    job_grades j  
ON      (e.salary BETWEEN j.lowest_sal AND j.highest_sal);
```

SOLUSI LATIHAN BAB 05 NO 08

```
SELECT e.last_name, e.hire_date  
FROM   employees e JOIN employees davies  
ON      (davies.last_name = 'Davies')  
WHERE  davies.hire_date < e.hire_date;
```

SOLUSI LATIHAN BAB 05 NO 09

```
SELECT w.last_name, w.hire_date, m.last_name, m.hire_date  
FROM   employees w JOIN employees m  
ON      (w.manager_id = m.employee_id)  
WHERE  w.hire_date < m.hire_date;
```

SOLUSI LATIHAN BAB 06 NO 01

```
UNDEFINE Enter_name

SELECT last_name, hire_date
FROM   employees
WHERE  department_id = (SELECT department_id
                        FROM   employees
                        WHERE  last_name = '&&Enter_name')
AND    last_name <> '&Enter_name';
```

SOLUSI LATIHAN BAB 06 NO 02

```
SELECT employee_id, last_name, salary
FROM   employees
WHERE  salary > (SELECT AVG(salary)
                 FROM   employees)
ORDER BY salary;
```

SOLUSI LATIHAN BAB 06 NO 03

```
SELECT employee_id, last_name
FROM   employees
WHERE  department_id IN (SELECT department_id
                        FROM   employees
                        WHERE  last_name like '%u%');
```

SOLUSI LATIHAN BAB 06 NO 04_A

```
SELECT last_name, department_id, job_id
FROM   employees
WHERE  department_id IN (SELECT department_id
                        FROM   departments
                        WHERE  location_id = 1700);
```

SOLUSI LATIHAN BAB 06 NO 04_B

```
SELECT last_name, department_id, job_id
FROM   employees
WHERE  department_id IN (SELECT department_id
                        FROM   departments
                        WHERE  location_id = &Enter_location);
```

SOLUSI LATIHAN BAB 06 NO 05

```
SELECT last_name, salary
FROM   employees
WHERE  manager_id = (SELECT employee_id
                    FROM   employees
                    WHERE  last_name = 'King');
```

SOLUSI LATIHAN BAB 06 NO 06

```
SELECT department_id, last_name, job_id
FROM   employees
WHERE  department_id IN (SELECT department_id
                        FROM   departments
                        WHERE  department_name = 'Executive');
```

SOLUSI LATIHAN BAB 06 NO 07

```
SELECT employee_id, last_name, salary
FROM   employees
WHERE  department_id IN (SELECT department_id
                        FROM   employees
                        WHERE  last_name like '%u%')
AND    salary > (SELECT AVG(salary)
                FROM   employees);
```

SOLUSI LATIHAN BAB 07 NO 01

```
SELECT department_id
FROM departments
MINUS
SELECT department_id
FROM employees
WHERE job_id = 'ST_CLERK';
```

SOLUSI LATIHAN BAB 07 NO 02

```
SELECT country_id, country_name
FROM countries
MINUS
SELECT country_id, country_name
FROM countries
NATURAL JOIN locations
NATURAL JOIN departments;
```

SOLUSI LATIHAN BAB 07 NO 03

```
COLUMN dummy NOPRINT
SELECT job_id, department_id, 'x' dummy
FROM employees
WHERE department_id = 10
UNION
SELECT job_id, department_id, 'y' dummy
FROM employees
WHERE department_id = 50
UNION
SELECT job_id, department_id, 'z' dummy
FROM employees
WHERE department_id = 20
ORDER BY dummy;
COLUMN dummy PRINT
```

SOLUSI LATIHAN BAB 07 NO 04

```
SELECT employee_id, job_id
FROM employees
INTERSECT
SELECT employee_id, job_id
FROM job_history;
```

SOLUSI LATIHAN BAB 07 NO 05

```
SELECT last_name, department_id, TO_CHAR(null)
FROM employees
UNION
SELECT TO_CHAR(null), department_id, department_name
FROM departments;
```