

Laporan Hasil Praktikum 1
“Mengambil Data Menggunakan Perintah *SQL SELECT*”

Bahasa Query

Kelas DP

Dosen pengampu:

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A. TUJUAN

1. Mahasiswa dapat menyebutkan kemampuan-kemampuan perintah SELECT.
2. Mahasiswa mampu menggunakan perintah dasar SELECT untuk mengambil data dari database.

B. ANALISIS

1. Tampilkan employee_id, first_name, job_id, salary dari tabel employees.

a) SS Query

```
-- Nomor 1
SELECT employee_id, first_name, job_id, salary
FROM employees;
```

b) SS Output

| | EMPLOYEE_ID | FIRST_NAME | JOB_ID | SALARY |
|----|-------------|------------|------------|--------|
| 1 | 100 | Steven | AD_PRES | 24000 |
| 2 | 101 | Neena | AD_VP | 17000 |
| 3 | 102 | Lex | AD_VP | 17000 |
| 4 | 103 | Alexander | IT_PROG | 9000 |
| 5 | 104 | Bruce | IT_PROG | 6000 |
| 6 | 105 | David | IT_PROG | 4800 |
| 7 | 106 | Valli | IT_PROG | 4800 |
| 8 | 107 | Diana | IT_PROG | 4200 |
| 9 | 108 | Nancy | FI_MGR | 12008 |
| 10 | 109 | Daniel | FI_ACCOUNT | 9000 |

| | | | | |
|-----|-----|----------|------------|-------|
| 97 | 196 | Alana | SH_CLERK | 3100 |
| 98 | 197 | Kevin | SH_CLERK | 3000 |
| 99 | 198 | Donald | SH_CLERK | 2600 |
| 100 | 199 | Douglas | SH_CLERK | 2600 |
| 101 | 200 | Jennifer | AD_ASST | 4400 |
| 102 | 201 | Michael | MK_MAN | 13000 |
| 103 | 202 | Pat | MK_REP | 6000 |
| 104 | 203 | Susan | HR_REP | 6500 |
| 105 | 204 | Hermann | PR_REP | 10000 |
| 106 | 205 | Shelley | AC_MGR | 12008 |
| 107 | 206 | William | AC_ACCOUNT | 8300 |

c) Analisis

Query Select berfungsi untuk menyeleksi kolom employee_id, first_name, job_id, dan salary. Query From berfungsi sebagai asal data dari table employees.

2. Tampilkan tanpa duplikasi job_id apa saja yang ada di tabel employees.

a) SS Query

```
-- Nomor 2
SELECT DISTINCT job_id
FROM employees;
```

b) SS Output

| JOB_ID |
|--------------|
| 1 AC_ACCOUNT |
| 2 AC_MGR |
| 3 AD_ASST |
| 4 AD_PRES |
| 5 AD_VP |
| 6 FI_ACCOUNT |
| 7 FI_MGR |
| 8 HR_REP |
| 9 IT_PROG |
| 10 MK_MAN |
| 11 MK_REP |
| 12 PR_REP |
| 13 PU_CLERK |
| 14 PU_MAN |
| 15 SA_MAN |
| 16 SA_REP |
| 17 SH_CLERK |
| 18 ST_CLERK |
| 19 ST_MAN |

c) Analisis

Query Select Distinct berfungsi untuk menyeleksi kolom job_id namun tanpa duplikasi. Query From berfungsi sebagai asal data dari table employees.

3. Tampilkan employee_id, first_name, last_name, hire_date dengan tampilan first_name dan Last_name digabungkan menjadi satu kolom dengan header kolom menjadi 'Full Name'.

a) SS Query

```
-- Nomor 3
SELECT employee_id, first_name || ' ' || last_name "Full Name", hire_date
FROM employees;
```

b) SS Output

| | EMPLOYEE_ID | Full Name | HIRE_DATE |
|-----|-------------|-------------------|-----------|
| 1 | 100 | Steven King | 17-JUN-03 |
| 2 | 101 | Neena Kochhar | 21-SEP-05 |
| 3 | 102 | Lex De Haan | 13-JAN-01 |
| 4 | 103 | Alexander Hunold | 03-JAN-06 |
| 5 | 104 | Bruce Ernst | 21-MAY-07 |
| 6 | 105 | David Austin | 25-JUN-05 |
| 7 | 106 | Valli Pataballa | 05-FEB-06 |
| 8 | 107 | Diana Lorentz | 07-FEB-07 |
| 9 | 108 | Nancy Greenberg | 17-AUG-02 |
| 10 | 109 | Daniel Faviet | 16-AUG-02 |
| 97 | 196 | Alana Walsh | 24-APR-06 |
| 98 | 197 | Kevin Feeney | 23-MAY-06 |
| 99 | 198 | Donald OConnell | 21-JUN-07 |
| 100 | 199 | Douglas Grant | 13-JAN-08 |
| 101 | 200 | Jennifer Whalen | 17-SEP-03 |
| 102 | 201 | Michael Hartstein | 17-FEB-04 |
| 103 | 202 | Pat Fay | 17-AUG-05 |
| 104 | 203 | Susan Mavris | 07-JUN-02 |
| 105 | 204 | Hermann Baer | 07-JUN-02 |
| 106 | 205 | Shelley Higgins | 07-JUN-02 |
| 107 | 206 | William Gietz | 07-JUN-02 |

c) Analisis

Query Select berfungsi untuk menyeleksi kolom employee_id, first_name, lalu ada || ' ' || berfungsi untuk menggabungkan kolom first_name dan last_name dengan adanya tanda "Full Name" sebagai nama headernya, dilanjutkan seleksi hire_date . Query From berfungsi sebagai asal data dari table employees.

4. Terdapat 4 kesalahan pada query di bawah ini

: SELECT employee_id, last_name

Sal x 12 ANNUAL SALARY

FROM employees;

Betulkan query tersebut;

a) SS Query

```
-- NOMOR 4
SELECT employee_id, last_name,
salary*12 "ANNUAL SALARY"
FROM employees;
```

b) SS Output

| EMPLOYEE_ID | LAST_NAME | ANNUAL SALARY |
|-------------|---------------|---------------|
| 1 | 100 King | 288000 |
| 2 | 101 Kochhar | 204000 |
| 3 | 102 De Haan | 204000 |
| 4 | 103 Hunold | 108000 |
| 5 | 104 Ernst | 72000 |
| 6 | 105 Austin | 57600 |
| 7 | 106 Pataballa | 57600 |
| 8 | 107 Lorentz | 50400 |
| 9 | 108 Greenberg | 144096 |
| 10 | 109 Fawiet | 108000 |
| 97 | 196 Walsh | 37200 |
| 98 | 197 Feeney | 36000 |
| 99 | 198 OConnell | 31200 |
| 100 | 199 Grant | 31200 |
| 101 | 200 Whalen | 52800 |
| 102 | 201 Hartstein | 156000 |
| 103 | 202 Fay | 72000 |
| 104 | 203 Mavris | 78000 |
| 105 | 204 Baer | 120000 |
| 106 | 205 Higgins | 144096 |
| 107 | 206 Gietz | 99600 |

c) Analisis

Query ini terdapat empat kesalahan, yang pertama SELECT employee_id tidak ada space, kedua sal yang seharusnya salary, ketiga x yang seharusnya *, dan keempat ANNUAL SALARY yang seharusnya "ANNUAL SALARY" Query Select berfungsi untuk menyeleksi kolom employee_id, last_name, dan kolom salary dikalikan 12 dengan "ANNUAL SALARY" sebagai nama headernya. Query From berfungsi sebagai asal data dari table employees.

5. Tampilkan last_name dan salary dari tabel employees dengan output tampilan sebagai berikut :

| Gaji Perbulan |
|--------------------------------|
| King : 1 bulan gaji = 24000 |
| Kochhar : 1 bulan gaji = 17000 |
| De Haan : 1 bulan gaji = 17000 |
| |

a) SS Query

```
-- Nomor 5
SELECT last_name || ' : 1 bulan gaji = ' || salary "Gaji Perbulan"
FROM employees;
```

b) SS Output

| Gaji Perbulan | |
|--------------------------------------|--|
| 1 King : 1 bulan gaji = 24000 | |
| 2 Kochhar : 1 bulan gaji = 17000 | |
| 3 De Haan : 1 bulan gaji = 17000 | |
| 4 Hunold : 1 bulan gaji = 9000 | |
| 5 Ernst : 1 bulan gaji = 6000 | |
| 6 Austin : 1 bulan gaji = 4800 | |
| 7 Pataballa : 1 bulan gaji = 4800 | |
| 8 Lorentz : 1 bulan gaji = 4200 | |
| 9 Greenberg : 1 bulan gaji = 12008 | |
| 10 Faviet : 1 bulan gaji = 9000 | |
| 97 Walsh : 1 bulan gaji = 3100 | |
| 98 Feeney : 1 bulan gaji = 3000 | |
| 99 OConnell : 1 bulan gaji = 2600 | |
| 100 Grant : 1 bulan gaji = 2600 | |
| 101 Whalen : 1 bulan gaji = 4400 | |
| 102 Hartstein : 1 bulan gaji = 13000 | |
| 103 Fay : 1 bulan gaji = 6000 | |
| 104 Mavris : 1 bulan gaji = 6500 | |
| 105 Baer : 1 bulan gaji = 10000 | |
| 106 Higgins : 1 bulan gaji = 12008 | |
| 107 Gietz : 1 bulan gaji = 8300 | |

c) Analisis

Query Select berfungsi untuk menyeleksi kolom last_name , lalu ada || ' 1 bulan gaji = ' || berfungsi untuk menggabungkan kolom last_name dan salary serta menambahkan kalimat : 1 bulang gaji dalam penggabungannya, dengan “Gaji Perbulan” sebagai nama headernya. Query From berfungsi sebagai asal data dari table employees.

6. Tampilkan struktur tabel Departments.

a) SS Query

```
-- Nomor 6  
DESCRIBE departments;
```

b) SS Output

| Name | Null? | Type |
|-----------------|----------|--------------|
| DEPARTMENT_ID | NOT NULL | NUMBER(4) |
| DEPARTMENT_NAME | NOT NULL | VARCHAR2(30) |
| MANAGER_ID | | NUMBER(6) |
| LOCATION_ID | | NUMBER(4) |

c) Analisis

Query Describe berfungsi untuk melihat struktur data table department.

7. Buatlah query dengan output sebagai berikut :

| DEPARTMENT_ID | DEPARTMENT_NAME | MANAGER_ID | LOCATION_ID |
|---------------|-----------------|------------|-------------|
| 10 | Administration | 200 | 1700 |
| 20 | Marketing | 201 | 1800 |
| 50 | Shipping | 124 | 1500 |
| 60 | IT | 103 | 1400 |
| 80 | Sales | 149 | 2500 |
| 90 | Executive | 100 | 1700 |
| 110 | Accounting | 205 | 1700 |
| 190 | Contracting | | 1700 |

a) SS Query

```
-- Nomor 7  
SELECT department_id, department_name, manager_id, location_id  
FROM departments;
```

b) SS Output

| | DEPARTMENT_ID | DEPARTMENT_NAME | MANAGER_ID | LOCATION_ID |
|----|---------------|------------------|------------|-------------|
| 1 | 10 | Administration | 200 | 1700 |
| 2 | 20 | Marketing | 201 | 1800 |
| 3 | 30 | Purchasing | 114 | 1700 |
| 4 | 40 | Human Resources | 203 | 2400 |
| 5 | 50 | Shipping | 121 | 1500 |
| 6 | 60 | IT | 103 | 1400 |
| 7 | 70 | Public Relations | 204 | 2700 |
| 8 | 80 | Sales | 145 | 2500 |
| 9 | 90 | Executive | 100 | 1700 |
| 10 | 100 | Finance | 108 | 1700 |
| 17 | 170 | Manufacturing | (null) | 1700 |
| 18 | 180 | Construction | (null) | 1700 |
| 19 | 190 | Contracting | (null) | 1700 |
| 20 | 200 | Operations | (null) | 1700 |
| 21 | 210 | IT Support | (null) | 1700 |
| 22 | 220 | NOC | (null) | 1700 |
| 23 | 230 | IT Helpdesk | (null) | 1700 |
| 24 | 240 | Government Sales | (null) | 1700 |
| 25 | 250 | Retail Sales | (null) | 1700 |
| 26 | 260 | Recruiting | (null) | 1700 |
| 27 | 270 | Payroll | (null) | 1700 |

c) Analisis

Query Select berfungsi untuk menyeleksi kolom department_id, department_name, manager_id, dan location_id. Query From berfungsi sebagai asal data dari table department.

8. Buatlah query untuk menampilkan employee_id, last_name, job_id, hire_date dengan output header kolom sebagai berikut :

| Emp # | Employee | Job | Hire Date |
|-------|----------|----------|-----------|
| 100 | King | AD_PRES | 17-JUN-87 |
| 101 | Kochhar | AD_VP | 21-SEP-89 |
| 102 | De Haan | AD_VP | 13-JAN-93 |
| 103 | Hunold | IT_PROG | 03-JAN-90 |
| 104 | Ernst | IT_PROG | 21-MAY-91 |
| 107 | Lorentz | IT_PROG | 07-FEB-99 |
| 124 | Mourgos | ST_MAN | 16-NOV-99 |
| 141 | Rajs | ST_CLERK | 17-OCT-95 |
| 142 | Davies | ST_CLERK | 29-JAN-97 |
| 143 | Matos | ST_CLERK | 15-MAR-98 |

a) SS Query

```
-- Nomor 8
SELECT employee_id "Emp#", last_name "Employee",
       job_id "Job", hire_date "Hire Date"
FROM employees;
```

b) SS Output

| | Emp# | Employee | Job | Hire Date |
|-----|------|-----------|------------|-----------|
| 1 | 100 | King | AD_PRES | 17-JUN-03 |
| 2 | 101 | Kochhar | AD_VP | 21-SEP-05 |
| 3 | 102 | De Haan | AD_VP | 13-JAN-01 |
| 4 | 103 | Hunold | IT_PROG | 03-JAN-06 |
| 5 | 104 | Ernst | IT_PROG | 21-MAY-07 |
| 6 | 105 | Austin | IT_PROG | 25-JUN-05 |
| 7 | 106 | Pataballa | IT_PROG | 05-FEB-06 |
| 8 | 107 | Lorentz | IT_PROG | 07-FEB-07 |
| 9 | 108 | Greenberg | FI_MGR | 17-AUG-02 |
| 10 | 109 | Faviet | FI_ACCOUNT | 16-AUG-02 |
| 97 | 196 | Walsh | SH_CLERK | 24-APR-06 |
| 98 | 197 | Feeney | SH_CLERK | 23-MAY-06 |
| 99 | 198 | OConnell | SH_CLERK | 21-JUN-07 |
| 100 | 199 | Grant | SH_CLERK | 13-JAN-08 |
| 101 | 200 | Whalen | AD_ASST | 17-SEP-03 |
| 102 | 201 | Hartstein | MK_MAN | 17-FEB-04 |
| 103 | 202 | Fay | MK_REP | 17-AUG-05 |
| 104 | 203 | Mavris | HR_REP | 07-JUN-02 |
| 105 | 204 | Baer | PR_REP | 07-JUN-02 |
| 106 | 205 | Higgins | AC_MGR | 07-JUN-02 |
| 107 | 206 | Gietz | AC_ACCOUNT | 07-JUN-02 |

c) Analisis

Query Select berfungsi untuk menyeleksi kolom employee_id, lalu tanda “Emp#” sebagai nama headernya, kolom last_name, lalu tanda “Employee” sebagai nama headernya, kolom job_id, lalu tanda “Job” sebagai nama headernya, kolom hire_date, lalu tanda “Hire Date” sebagai nama headernya. Query From berfungsi sebagai asal data dari table employee.

9. Buatlah query untuk menampilkan output sebagai berikut :

| THE_OUTPUT | | | | | | | | | | |
|------------|-----------|---------|----------|--------------|----------|-----------|-------|---|----|--|
| 100 | Steven | King | SKING | 515.123.4567 | AD_PRES | 17-JUN-87 | 24000 | , | 90 | |
| 101 | Neena | Kochhar | NKOCHHAR | 515.123.4568 | AD_VP | 21-SEP-89 | 17000 | , | 90 | |
| 102 | Lex | De Haan | LDEHAAN | 515.123.4569 | AD_VP | 13-JAN-93 | 17000 | , | 90 | |
| 103 | Alexander | Hunold | AHUNOLD | 590.423.4567 | IT_PROG | 03-JAN-90 | 9000 | , | 60 | |
| 104 | Bruce | Ernst | BERNST | 590.423.4568 | IT_PROG | 21-MAY-91 | 6000 | , | 60 | |
| 107 | Diana | Lorentz | DLORENTZ | 590.423.5567 | IT_PROG | 07-FEB-99 | 4200 | , | 60 | |
| 124 | Kevin | Mourgos | KMOURGOS | 650.123.5234 | ST_MAN | 16-NOV-99 | 5800 | , | 50 | |
| 141 | Trenna | Rajs | TRAJS | 650.121.8009 | ST_CLERK | 17-OCT-95 | 3500 | , | 50 | |
| 142 | Curtis | Davies | CDAVIES | 650.121.2994 | ST_CLERK | 29-JAN-97 | 3100 | , | 50 | |
| 143 | Randall | Matos | RMATOS | 650.121.2874 | ST_CLERK | 15-MAR-98 | 2600 | , | 50 | |
| 144 | Peter | Vargas | PVARGAS | 650.121.2004 | ST_CLERK | 09-JUL-98 | 2500 | , | 50 | |

- a) SS Query

```
--Nomor 9
SELECT employee_id || ',' || first_name || ',' || last_name || ',' ||
email || ',' || phone_number || ',' || job_id || ',' || hire_date || ',' ||
salary || ',' || department_id "THE_OUTPUT"
FROM employees;
```

- b) SS Output

| THE_OUTPUT | | | | | | | | | | |
|------------|-----|-----------|-----------|----------|--------------|------------|-----------|-------|---|-----|
| 1 | 100 | Steven | King | SKING | 515.123.4567 | AD_PRES | 17-JUN-03 | 24000 | , | 90 |
| 2 | 101 | Neena | Kochhar | NKOCHHAR | 515.123.4568 | AD_VP | 21-SEP-05 | 17000 | , | 90 |
| 3 | 102 | Lex | De Haan | LDEHAAN | 515.123.4569 | AD_VP | 13-JAN-01 | 17000 | , | 90 |
| 4 | 103 | Alexander | Hunold | AHUNOLD | 590.423.4567 | IT_PROG | 03-JAN-06 | 9000 | , | 60 |
| 5 | 104 | Bruce | Ernst | BERNST | 590.423.4568 | IT_PROG | 21-MAY-07 | 6000 | , | 60 |
| 6 | 105 | David | Austin | DAUSTIN | 590.423.4569 | IT_PROG | 25-JUN-05 | 4800 | , | 60 |
| 7 | 106 | Valli | Pataballa | VPATABAL | 590.423.4560 | IT_PROG | 05-FEB-06 | 4800 | , | 60 |
| 8 | 107 | Diana | Lorentz | DLORENTZ | 590.423.5567 | IT_PROG | 07-FEB-07 | 4200 | , | 60 |
| 9 | 108 | Nancy | Greenberg | NGREENBE | 515.124.4569 | FI_MGR | 17-AUG-02 | 12008 | , | 100 |
| 10 | 109 | Daniel | Faviet | DFAVIET | 515.124.4169 | FI_ACCOUNT | 16-AUG-02 | 9000 | , | 100 |

| | |
|-----|---|
| 97 | 196, Alana, Walsh, AWALSH, 650.507.9811, SH_CLERK, 24-APR-06, 3100, , 50 |
| 98 | 197, Kevin, Feeney, KFEENEY, 650.507.9822, SH_CLERK, 23-MAY-06, 3000, , 50 |
| 99 | 198, Donald, OConnell, DOCONNEL, 650.507.9833, SH_CLERK, 21-JUN-07, 2600, , 50 |
| 100 | 199, Douglas, Grant, DGRANT, 650.507.9844, SH_CLERK, 13-JAN-08, 2600, , 50 |
| 101 | 200, Jennifer, Whalen, JWHALEN, 515.123.4444, AD_ASST, 17-SEP-03, 4400, , 10 |
| 102 | 201, Michael, Hartstein, MHARTSTE, 515.123.5555, MK_MAN, 17-FEB-04, 13000, , 20 |
| 103 | 202, Pat, Fay, PFAY, 603.123.6666, MK_REP, 17-AUG-05, 6000, , 20 |
| 104 | 203, Susan, Mavris, SMAVRIS, 515.123.7777, HR_REP, 07-JUN-02, 6500, , 40 |
| 105 | 204, Hermann, Baer, HBAER, 515.123.8888, PR_REP, 07-JUN-02, 10000, , 70 |
| 106 | 205, Shelley, Higgins, SHIGGINS, 515.123.8080, AC_MGR, 07-JUN-02, 12008, , 110 |
| 107 | 206, William, Gietz, WGIETZ, 515.123.8181, AC_ACCOUNT, 07-JUN-02, 8300, , 110 |

c) Analisis

Query Select berfungsi untuk menyeleksi kolom employee_id, first_name, last_name, email, phone_number, job_id, hire_date, salary, dan department_id. Selanjutnya ada || ‘, ‘ || berfungsi untuk menggabungkan setiap kolo serta menambahkan koma penggabungannya dan dengan nama “THE_OUTPUT” sebagai nama headernya.

Query From berfungsi sebagai asal data dari table employee.

C. DAFTAR PUSTAKA

- Modul 1 Bahasa Query - SELECT