

PRAKTIKUM BASIS DATA

BAB : DATA MANIPULATION LANGUAGE
NAMA : DANI ADRIAN
NIM : 225150201111009
ASISTEN : NATHAN DAUD
RAKHA HANIF MAHESWARA
NAUFAL PUTRA SUTRISNA
STANISLAUS FRANS BERNADO

TGL PRAKTIKUM : 11/10/2023 TGL PENGUMPULAN : 18/10/2023

Pertanyaan

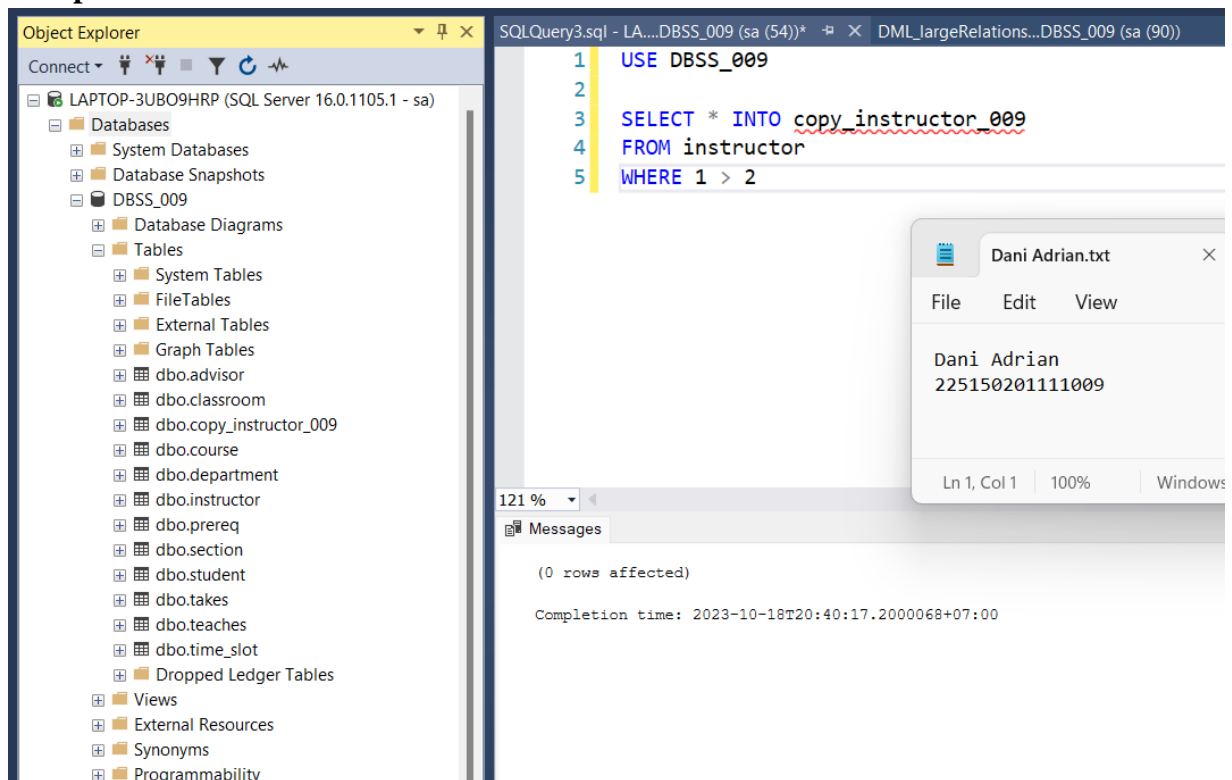
1. Buat tabel **copy_instructor_nim** dengan struktur tabel yang sama dengan tabel **instructor**.

Implementasi

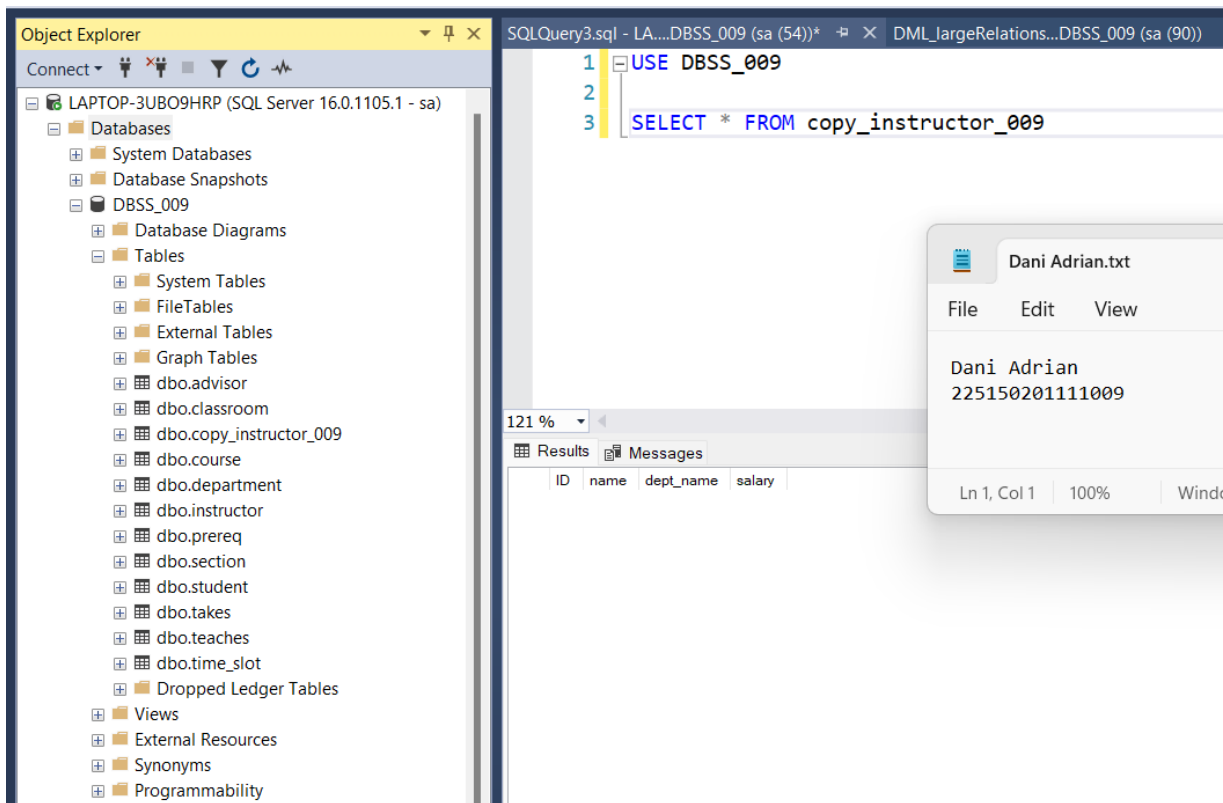
```
USE DBSS_009

SELECT * INTO copy_instructor_009
FROM instructor
WHERE 1 > 2
```

Tampilan Keluaran



The screenshot displays the SQL Server Enterprise Manager interface. On the left, the Object Explorer shows the database structure for 'LAPTOP-3UBO9HRP (SQL Server 16.0.1105.1 - sa)'. The 'Databases' folder is expanded, showing 'DBSS_009'. Under 'Tables', the following tables are listed: 'dbo.advisor', 'dbo.classroom', 'dbo.copy_instructor_009', 'dbo.course', 'dbo.department', 'dbo.instructor', 'dbo.prereq', 'dbo.section', 'dbo.student', 'dbo.takes', 'dbo.teaches', 'dbo.time_slot', and 'Dropped Ledger Tables'. The 'copy_instructor_009' table is highlighted. On the right, the SQL Query window shows the executed query: 'USE DBSS_009', 'SELECT * INTO copy_instructor_009', 'FROM instructor', and 'WHERE 1 > 2'. The Messages pane at the bottom indicates '(0 rows affected)' and 'Completion time: 2023-10-18T20:40:17.2000068+07:00'. A small window titled 'Dani Adrian.txt' is also visible, showing the text 'Dani Adrian' and '225150201111009'.



Pembahasan dan Analisis

Nama : Dani Adrian

NIM : 225150201111009

Untuk menambah tabel Copy_instructor_009 dengan struktur tabel yang sama dengan tabel Instructor, dapat dilakukan dengan perintah `SELECT * INTO (tabel tujuan) FROM (tabel asal)`. Perintah `SELECT *` digunakan untuk memilih semua data atribut. Lalu perintah `INTO` (tabel baru) berfungsi untuk menentukan tujuan tabel baru. Kemudian perintah `FROM` (tabel asal) merupakan asal dari data - data atribut yang ingin ditambahkan ke tabel baru. Perintah `WHERE` dengan Operator Komparasi dimana hasilnya harus bernilai salah (false), dengan `1 > 2` (1 lebih besar dari 2 = false) berfungsi agar hanya struktur tabelnya saja yang tersalin dan ini baris data tidak ikut tersalin.

Pertanyaan

2. Tambahkan baris data berikut pada tabel `copy_instructor_nim`.

ID	name	dept_name	salary
----	------	-----------	--------

11111	Jean	Psychology	234578
11112	Bill	Comp. Sci.	98720
11113	Bob	Languages	76090
11114	David	Physics	56734
11115	Neil	Astronomy	102378

Implementasi

```
USE DBSS_009;

INSERT INTO copy_instructor_009
VALUES
('11111', 'Jean', 'Psychology', 234578),
('11112', 'Bill', 'Comp. Sci.', 98720),
('11113', 'Bob', 'Languages', 76090),
('11114', 'David', 'Physics', 56734),
('11115', 'Neil', 'Astronomy', 102378)
```

Tampilan Keluaran

The screenshot displays the SQL Server Enterprise Manager interface. On the left, the 'Object Explorer' shows the database structure for 'LAPTOP-3UBO9HRP (SQL Server 16.0.1105.1 - sa)'. The 'copy_instructor_009' table is highlighted under the 'Tables' folder. The right pane shows the SQL query executed in 'SQLQuery3.sql'. The query consists of two parts: an INSERT statement and a SELECT statement. The INSERT statement inserts five rows of data into the 'copy_instructor_009' table. The SELECT statement retrieves all data from the 'copy_instructor_009' table. The results of the SELECT statement are displayed in the 'Results' pane, showing a table with five rows and four columns: ID, name, dept_name, and salary.

ID	name	dept_name	salary
11111	Jean	Psychology	234578.00
11112	Bill	Comp. Sci.	98720.00
11113	Bob	Languages	76090.00
11114	David	Physics	56734.00
11115	Neil	Astronomy	102378.00

Pembahasan dan Analisis

Nama : Dani Adrian

NIM = 22515020111009

Untuk menambahkan baris data dapat digunakan Perintah INSERT INTO (Nama tabel) VALUES ('isi data').

INSERT INTO => memilih dan memasukkan data ke tabel yang diinginkan

VALUES => Definisi baris data yang ditambahkan

Pertanyaan

3. Ubah nama yang terdapat pada row ke-4 menjadi Donald.

Implementasi

```
USE DBSS_009;  
  
UPDATE copy_instructor_009  
SET name = 'Donald'  
WHERE ID = '11114'
```

Tampilan Keluaran

The screenshot displays the SQL Server Enterprise Manager interface. On the left, the Object Explorer shows the database structure for 'LAPTOP-3UBO9HRP (SQL Server 16.0.1105.1 - sa)'. The 'DBSS_009' database is selected, showing various tables including 'copy_instructor_009'. The central pane shows a SQL query window with the following code:

```

1 USE DBSS_009
2
3 UPDATE copy_instructor_009
4 SET name = 'Donald'
5 WHERE ID = '11114'
6
7
8 SELECT * FROM copy_instructor_009

```

Below the query window, the 'Results' pane shows the output of the query, displaying a table with 5 rows and 4 columns: ID, name, dept_name, and salary.

	ID	name	dept_name	salary
1	11111	Jean	Psychology	234578.00
2	11112	Bill	Comp. Sci.	98720.00
3	11113	Bob	Languages	76090.00
4	11114	Donald	Physics	56734.00
5	11115	Neil	Astronomy	102378.00

On the right, a text editor window titled 'Dani Adrian.txt' shows the following text:

```

Dani Adrian
225150201111009

```

Pembahasan dan Analisis

Nama : Dani Adrian

NIM : 225150201111009

Untuk mengubah nama di baris ke 4 menjadi Donald, gunakan perintah UPDATE (nama tabel) SET (Attribute) = 'Values' WHERE (Attribute) = 'Values'

UPDATE => mengubah baris data suatu tabel

SET => Set attribute data yang ingin diubah

WHERE => Menentukan baris data mana yang attributnya akan diubah (Attribut ID : '11114')

18/08/2023 2:57 PM

KIRY

Pertanyaan

- Ubah semua **salary** menjadi 95000.

Implementasi

```
USE DBSS_009;  
  
UPDATE copy_instructor_009  
SET salary = 95000
```

Tampilan Keluaran

The screenshot displays the SQL Server Enterprise Manager interface. On the left, the Object Explorer shows the database structure for 'LAPTOP-3UBO9HRP (SQL Server 16.0.1105.1 - sa)'. The 'DBSS_009' database is expanded, showing various system tables and user tables. The 'copy_instructor_009' table is highlighted. In the center, the SQL Query Editor shows the execution of the following queries:

```
1 USE DBSS_009  
2  
3 UPDATE copy_instructor_009  
4 SET salary = 95000  
5  
6 SELECT * FROM copy_instructor_009
```

Below the query editor, the Results pane shows the output of the SELECT query, displaying a table with 5 rows and 4 columns: ID, name, dept_name, and salary.

ID	name	dept_name	salary
11111	Jean	Psychology	95000.00
11112	Bill	Comp. Sci.	95000.00
11113	Bob	Languages	95000.00
11114	Donald	Physics	95000.00
11115	Neil	Astronomy	95000.00

On the right, a text editor window titled 'Dani Adrian.txt' is open, showing the text 'Dani Adrian' followed by a newline character and '225150201111009'.

Pembahasan dan Analisis

No. :

Nama : Dani Adrian

NIM : 225150201111009

Untuk mengubah semua Salary menjadi 95000, dapat dilakukan menggunakan perintah UPDATE (nama tabel) SET (attribute) : 'Values!'
Perintah UPDATE digunakan Untuk mengubah bars dari tabel
Perintah SET Untuk men-set atribut yang ingin diubah daranya, yaitu pada soal Salary

Pertanyaan

5. Delete **instructor** dengan nama Bob.

Implementasi

```
USE DBSS_009  
  
DELETE FROM copy_instructor_009  
WHERE name = 'Bob'
```

Tampilan Keluaran

The screenshot shows the SQL Server Enterprise Manager interface. On the left, the Object Explorer displays the database structure for 'LAPTOP-3UB09HRP (SQL Server 16.0.1105.1 - sa)'. The 'copy_instructor_009' table is highlighted under the 'Tables' folder. The main window shows a SQL query in the 'SQLQuery3.sql' file:

```
1 USE DBSS_009
2
3 DELETE FROM copy_instructor_009
4 WHERE name = 'Bob'
5
6 SELECT * FROM copy_instructor_009
```

Below the query, the 'Results' pane shows the output of the SELECT statement:

	ID	name	dept_name	salary
1	11111	Jean	Psychology	95000.00
2	11112	Bill	Comp. Sci.	95000.00
3	11114	Donald	Physics	95000.00
4	11115	Neil	Astronomy	95000.00

A text editor window titled 'Dani Adrian.txt' is also open, showing the text:

```
Dani Adrian
225150201111009
```

Pembahasan dan Analisis

Nama = Dani Adrian

Nim = 225150201111009

Dapat digunakan perintah DELETE FROM (nama tabel) WHERE (attribute) = 'Values'.

DELETE FROM = menghapus suatu data dari tabel

WHERE = menentukan data apa dari atribut apa yang ingin dihapus

Pertanyaan

6. Tambahkan baris data baru pada tabel **copy_instructor_nim** dengan menggunakan data pada tabel **instructor** yang **salary**-nya lebih dari 100000.

Implementasi


```

USE DBSS_009

INSERT INTO copy_instructor_009
SELECT * FROM instructor
WHERE salary > 100000

```

Tampilan Keluaran

The screenshot displays the SQL Server Enterprise Manager interface. On the left, the Object Explorer shows the database structure for 'DBSS_009', including tables like 'copy_instructor_009'. The central SQL Query window shows the executed script: 'USE DBSS_009', 'INSERT INTO copy_instructor_009', 'SELECT * FROM instructor', 'WHERE salary > 100000', and 'SELECT * FROM copy_instructor_009'. The Results window at the bottom shows a table with 16 rows of instructor data. A text editor window titled 'Dani Adrian.txt' is also visible on the right.

ID	name	dept_name	salary	
1	11111	Jean	Psychology	95000.00
2	11112	Bill	Comp. Sci.	95000.00
3	19368	Wieland	Pol. Sci.	124651.41
4	11114	Donald	Physics	95000.00
5	11115	Neil	Astronomy	95000.00
6	34175	Bondi	Comp. Sci.	115469.11
7	37687	Arias	Statistics	104563.38
8	48507	Lent	Mech. Eng.	107978.47
9	50330	Shuming	Physics	108011.81
10	63287	Jaekel	Athletics	103146.87
11	6569	Mingoz	Finance	105311.38
12	74420	Voronina	Physics	121141.99
13	74426	Kenje	Marketing	106554.73
14	90376	Bietzk	Cybernetics	117836.50
15	95709	Sakurai	English	118143.98
16	96895	Mird	Marketing	119921.41

Query executed successfully.

Pembahasan dan Analisis

Nama : Dani Adrian

NIM : 225150201111009

Untuk menambahkan data pada tabel Copy_instructor_009 dengan menggunakan data dari tabel instructor yang salarynya lebih dari 100000 dapat dilakukan menggunakan perintah INSERT INTO (nama tabel) SELECT * FROM (asal tabel) WHERE (attribute = salary) > 100000.

INSERT INTO : memilih dan memasukkan data ke dalam tabel yang telah ditentukan

SELECT * FROM : (asal tabel) berfungsi memilih semua baris data dari asal tabel yang ditentukan

WHERE + Operator > = Untuk mengkhususkan nilai salary yang lebih besar dari 100000

Pertanyaan

7. Periksa hasilnya dengan menampilkan/mengambil semua isi tabel.

Implementasi

	<code>SELECT * FROM copy_instructor_009</code>
--	--

Tampilan Keluaran

Object Explorer

Connect

LAPTOP-3UBO9HRP (SQL Server 16.0.1105.1 - sa)

- Databases
 - System Databases
 - Database Snapshots
 - DBSS_009
 - Database Diagrams
 - Tables
 - System Tables
 - FileTables
 - External Tables
 - Graph Tables
 - dbo.advisor
 - dbo.classroom
 - dbo.copy_instructor_009
 - dbo.course
 - dbo.department
 - dbo.instructor
 - dbo.prereq
 - dbo.section
 - dbo.student
 - dbo.takes
 - dbo.teaches
 - dbo.time_slot
 - Dropped Ledger Tables
 - Views
 - External Resources
 - Synonyms
 - Programmability
 - Query Store
 - Service Broker
 - Storage
 - Security
 - KULIAH 009

SQLQuery4.sql - LA....DBSS_009 (sa (68))*

```

1 USE DBSS_009
2
3 SELECT * FROM copy_instructor_009
4

```

121 %

Results

	ID	name	dept_name	salary
1	11111	Jean	Psychology	95000.00
2	11112	Bill	Comp. Sci.	95000.00
3	19368	Wieland	Pol. Sci.	124651.41
4	11114	Donald	Physics	95000.00
5	11115	Neil	Astronomy	95000.00
6	34175	Bondi	Comp. Sci.	115469.11
7	37687	Arias	Statistics	104563.38
8	48507	Lent	Mech. Eng.	107978.47
9	50330	Shuming	Physics	108011.81
10	63287	Jaekel	Athletics	103146.87
11	6569	Mingoz	Finance	105311.38
12	74420	Voronina	Physics	121141.99
13	74426	Kenje	Marketing	106554.73
14	90376	Bietzk	Cybernetics	117836.50
15	95709	Sakurai	English	118143.98
16	96895	Mird	Marketing	119921.41

Messages

Dani Adrian.txt

File Edit View

Dani Adrian
225150201111009

Ln 1, Col 1 100%

Pembahasan dan Analisis

Nama : Dani Adrian

Nim : 225150201111009

Untuk menampilkan semua isi tabel dapat menggunakan perintah
 SELECT * FROM (nama tabel)