

ACTIVITY PERTEMUAN 4

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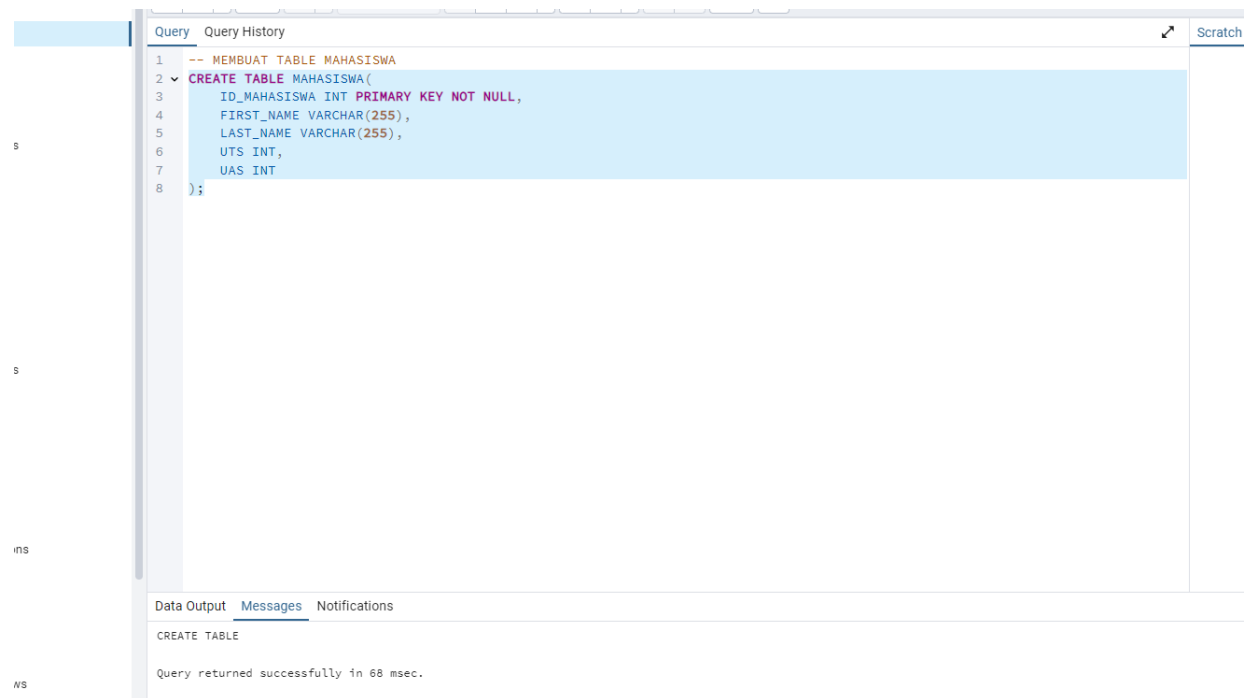
KELAS : 3IA11

MATERI : SELECT DML DAN EKSPRESI ARITMATIKA

MATA PRAKTIKUM : SISTEM BASIS DATA 1

(Screenshoot langkah-langkah sesuai video pembelajaran dan jelaskan dengan ringkas)

CREATE TABLE



The screenshot displays a SQL development environment with a 'Query' editor and a 'Messages' pane. The query editor contains the following SQL code:

```
1  -- MEMBUAT TABLE MAHASISWA
2  CREATE TABLE MAHASISWA(
3      ID_MAHASISWA INT PRIMARY KEY NOT NULL,
4      FIRST_NAME VARCHAR(255),
5      LAST_NAME VARCHAR(255),
6      UTS INT,
7      UAS INT
8  );
```

The 'Messages' pane at the bottom shows the execution result:

```
CREATE TABLE
Query returned successfully in 68 msec.
```

SELECT * FROM MAHASISWA

The screenshot shows a database IDE interface. On the left is a sidebar with a tree view of database objects. The main area is divided into two panes: 'Query' and 'Query History'. The 'Query' pane contains SQL code for creating a table and selecting from it. The 'Query History' pane shows the same code. Below the panes is a 'Data Output' section with a table of query results.

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Query Query History

```
1 -- MEMBUAT TABLE MAHASISWA
2 CREATE TABLE MAHASISWA (
3     ID_MAHASISWA INT PRIMARY KEY NOT NULL,
4     FIRST_NAME VARCHAR(255),
5     LAST_NAME VARCHAR(255),
6     UTS INT,
7     UAS INT
8 );
9
10 -- MENAMPILKAN TABEL
11 SELECT * FROM MAHASISWA
```

Data Output Messages Notifications

id_mahasiswa	first_name	last_name	uts	uas
[PK] integer	character varying (255)	character varying (255)	integer	integer

MEMASUKKAN RECORD

The screenshot shows a database IDE interface. The 'Query' pane contains SQL code for creating a table, selecting from it, and inserting records. The 'Query History' pane shows the same code. Below the panes is a 'Data Output' section with a table of query results.

Query Query History

```
1 -- MEMBUAT TABLE MAHASISWA
2 CREATE TABLE MAHASISWA (
3     ID_MAHASISWA INT PRIMARY KEY NOT NULL,
4     FIRST_NAME VARCHAR(255),
5     LAST_NAME VARCHAR(255),
6     UTS INT,
7     UAS INT
8 );
9
10 -- MENAMPILKAN TABEL
11 SELECT * FROM MAHASISWA
12
13 -- MEMASUKKAN RECORD
14 INSERT INTO MAHASISWA VALUES
15 (1, 'TARMIDZI', 'BARIQ', 80, 90),
16 (2, 'CHRIS', 'EVANS', 94, 91),
17 (3, 'TONY', 'STARK', 95, 96),
18 (4, 'BRUCE', 'WAYNE', 95, 95),
19 (5, 'TOM', 'HOLAND', 84, 98),
20 (6, 'PETER', 'PARKER', 93, 97);
```

Data Output Messages Notifications

INSERT 0 6

Query returned successfully in 125 msec.

MENAMPILKAN TABEL

```
10 -- MENAMPILKAN TABEL
11 SELECT * FROM MAHASISWA
12
13 -- MEMASUKKAN RECORD
14 INSERT INTO MAHASISWA VALUES
15 (1, 'TARMIDZI', 'BARIQ', 80, 90),
16 (2, 'CHRIS', 'EVANS', 94, 91),
17 (3, 'TONY', 'STARK', 95, 96),
18 (4, 'BRUCE', 'WAYNE', 95, 95),
19 (5, 'TOM', 'HOLAND', 84, 98),
20 (6, 'PETER', 'PARKER', 93, 97);
```

Data Output Messages Notifications

	id_mahasiswa [PK] integer	first_name character varying (255)	last_name character varying (255)	uts integer	uas integer
1	1	TARMIDZI	BARIQ	80	90
2	2	CHRIS	EVANS	94	91
3	3	TONY	STARK	95	96
4	4	BRUCE	WAYNE	95	95
5	5	TOM	HOLAND	84	98
6	6	PETER	PARKER	93	97

BETWEEN

```
21
22 SELECT * FROM MAHASISWA
23 WHERE UTS BETWEEN 90 AND 95;
```

Data Output Messages Notifications

	id_mahasiswa [PK] integer	first_name character varying (255)	last_name character varying (255)	uts integer	uas integer
1	2	CHRIS	EVANS	94	91
2	3	TONY	STARK	95	96
3	4	BRUCE	WAYNE	95	95
4	6	PETER	PARKER	93	97

IN

The screenshot shows the pgAdmin 4 interface. The left pane displays the database structure for 'M4_51422161'. The central pane shows the following SQL script:

```
1 -- MEMBUAT TABLE MAHASISWA
2 CREATE TABLE MAHASISWA(
3     ID_MAHASISWA INT PRIMARY KEY NOT NULL,
4     FIRST_NAME VARCHAR(255),
5     LAST_NAME VARCHAR(255),
6     UTS INT,
7     UAS INT
8 );
9
10 -- MENAMPILKAN TABEL
11 SELECT * FROM MAHASISWA
12
13 -- MEMASUKKAN RECORD
14 INSERT INTO MAHASISWA VALUES
15 (1, 'TARMIDZI', 'BARIQ', 80, 90),
16 (2, 'CHRIS', 'EVANS', 94, 91),
17 (3, 'TONY', 'STARK', 95, 96),
18 (4, 'BRUCE', 'WAYNE', 95, 95),
19 (5, 'TOM', 'HOLAND', 84, 98),
20 (6, 'PETER', 'PARKER', 93, 97);
21
22 SELECT * FROM MAHASISWA
23 WHERE UTS BETWEEN 90 AND 95;
24
25 SELECT * FROM MAHASISWA
26 WHERE UTS IN (95, 96);
```

The 'Data Output' tab shows the results of the last query:

	id_mahasiswa [PK] integer	first_name character varying (255)	last_name character varying (255)	uts integer	uas integer
1	3	TONY	STARK	95	96
2	4	BRUCE	WAYNE	95	95

LIKE

The screenshot shows the pgAdmin 4 interface. The left pane displays the database structure for 'M4_51422161'. The central pane shows the following SQL script:

```
3 ID_MAHASISWA INT PRIMARY KEY NOT NULL,
4 FIRST_NAME VARCHAR(255),
5 LAST_NAME VARCHAR(255),
6 UTS INT,
7 UAS INT
8 );
9
10 -- MENAMPILKAN TABEL
11 SELECT * FROM MAHASISWA
12
13 -- MEMASUKKAN RECORD
14 INSERT INTO MAHASISWA VALUES
15 (1, 'TARMIDZI', 'BARIQ', 80, 90),
16 (2, 'CHRIS', 'EVANS', 94, 91),
17 (3, 'TONY', 'STARK', 95, 96),
18 (4, 'BRUCE', 'WAYNE', 95, 95),
19 (5, 'TOM', 'HOLAND', 84, 98),
20 (6, 'PETER', 'PARKER', 93, 97);
21
22 SELECT * FROM MAHASISWA
23 WHERE UTS BETWEEN 90 AND 95;
24
25 SELECT * FROM MAHASISWA
26 WHERE UTS IN (95, 96);
27
28 SELECT * FROM MAHASISWA
29 WHERE FIRST_NAME LIKE 'T%';
```

The 'Data Output' tab shows the results of the last query:

	id_mahasiswa [PK] integer	first_name character varying (255)	last_name character varying (255)	uts integer	uas integer
1	1	TARMIDZI	BARIQ	80	90
2	3	TONY	STARK	95	96
3	5	TOM	HOLAND	84	98

MENGGUNAKAN AS, SEBAGAI ALIAS

The screenshot shows the PostgreSQL IDE interface. On the left, the 'Servers' pane shows a connection to 'PostgreSQL 17' with a database named 'M4_51422161'. The 'Query' pane contains the following SQL code:

```
1  UTS INT,  
2  UAS INT  
3  );  
4  
5  -- MENAMPILKAN TABEL  
6  SELECT * FROM MAHASISWA  
7  
8  -- MEMASUKKAN RECORD  
9  INSERT INTO MAHASISWA VALUES  
10 (1, 'TARMIDZI', 'BARIQ', 80, 90),  
11 (2, 'CHRIS', 'EVANS', 94, 91),  
12 (3, 'TONY', 'STARK', 95, 96),  
13 (4, 'BRUCE', 'WAYNE', 95, 95),  
14 (5, 'TOM', 'HOLAND', 84, 98),  
15 (6, 'PETER', 'PARKER', 93, 97);  
16  
17 SELECT * FROM MAHASISWA  
18 WHERE UTS BETWEEN 90 AND 95;  
19  
20 SELECT * FROM MAHASISWA  
21 WHERE UTS IN(95,96);  
22  
23 SELECT * FROM MAHASISWA  
24 WHERE FIRST_NAME LIKE 'T%';  
25  
26 SELECT FIRST_NAME AS NAMA_DEPAN, UTS, UAS  
27 FROM MAHASISWA;
```

The 'Data Output' pane shows the result of the last query, displaying a table with 6 rows and 3 columns: 'nama_depan', 'uts', and 'uas'.

	nama_depan	uts	uas
1	TARMIDZI	80	90
2	CHRIS	94	91
3	TONY	95	96
4	BRUCE	95	95
5	TOM	84	98
6	PETER	93	97

MENAMBAHKAN DATA AGAAR TERDAPAT DUPLIKAT

The screenshot shows the PostgreSQL IDE interface. On the left, the 'Servers' pane shows a connection to 'PostgreSQL 17' with a database named 'M4_51422161'. The 'Query' pane contains the following SQL code:

```
24  
25 SELECT * FROM MAHASISWA  
26 WHERE UTS IN(95,96);  
27  
28 SELECT * FROM MAHASISWA  
29 WHERE FIRST_NAME LIKE 'T%';  
30  
31 SELECT FIRST_NAME AS NAMA_DEPAN, UTS, UAS  
32 FROM MAHASISWA;  
33  
34 INSERT INTO MAHASISWA VALUES  
35 (7, 'TARMIDZI', 'BARIQ', 80, 90),  
36 (8, 'CHRIS', 'EVANS', 94, 91),  
37 (9, 'TONY', 'STARK', 95, 96),  
38 (10, 'BRUCE', 'WAYNE', 95, 95),  
39 (11, 'TOM', 'HOLAND', 84, 98),  
40 (12, 'PETER', 'PARKER', 93, 97);  
41  
42 -- SS5  
43 SELECT * FROM MAHASISWA;
```

The 'Data Output' pane shows the result of the last query, displaying a table with 8 rows and 6 columns: 'id_mahasiswa', 'first_name', 'last_name', 'uts', and 'uas'.

	id_mahasiswa	first_name	last_name	uts	uas
1	1	TARMIDZI	BARIQ	80	90
2	2	CHRIS	EVANS	94	91
3	3	TONY	STARK	95	96
4	4	BRUCE	WAYNE	95	95
5	5	TOM	HOLAND	84	98
6	6	PETER	PARKER	93	97
7	7	TARMIDZI	BARIQ	80	90
8	8	CHRIS	EVANS	94	91

DISTINCT

```
45 -- SS6
46 SELECT DISTINCT FIRST_NAME AS NAMA_DEPAN, UTS, UAS
47 FROM MAHASISWA;
```

	nama_depan character varying (255)	uts integer	uas integer
1	CHRIS	94	91
2	TOM	84	98
3	TONY	95	96
4	TARMIDZI	80	90
5	PETER	93	97
6	BRUCE	95	95

DELETE ID > 5

```
26 WHERE UTS IN(95,96);
27
28 SELECT * FROM MAHASISWA
29 WHERE FIRST_NAME LIKE 'T%';
30
31 SELECT FIRST_NAME AS NAMA_DEPAN, UTS, UAS
32 FROM MAHASISWA;
33
34 INSERT INTO MAHASISWA VALUES
35 (7, 'TARMIDZI', 'BARIQ', 80, 90),
36 (8, 'CHRIS', 'EVANS', 94, 91),
37 (9, 'TONY', 'STARK', 95, 96),
38 (10, 'BRUCE', 'WAYNE', 95, 95),
39 (11, 'TOM', 'HOLAND', 84, 98),
40 (12, 'PETER', 'PARKER', 93, 97);
41
42 -- SS5
43 SELECT * FROM MAHASISWA;
44
45 -- SS6
46 SELECT DISTINCT FIRST_NAME AS NAMA_DEPAN, UTS, UAS
47 FROM MAHASISWA;
48
49 -- DELETE DATA YANG DITAMBAHKAN
50 DELETE FROM MAHASISWA
51 WHERE ID_MAHASISWA > 6;
```

Data Output	Messages	Notifications
	DELETE 6	
		Query returned successfully in 81 msec.

WHERE UTS = 93 AND UAS = 97

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```
40 (12, 'PETER', 'PARKER', 93, 97);
41
42 -- SS5
43 SELECT * FROM MAHASISWA;
44
45 -- SS6
46 SELECT DISTINCT FIRST_NAME AS NAMA_DEPAN, UTS, UAS
47 FROM MAHASISWA;
48
49 -- DELETE DATA YANG DITAMBAHKAN
50 DELETE FROM MAHASISWA
51 WHERE ID_MAHASISWA > 6;
52
53 -- SS7
54 SELECT * FROM MAHASISWA
55 WHERE UTS = 93 AND UAS = 97;
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Data Output Messages Notifications

	id_mahasiswa [PK] integer	first_name character varying (255)	last_name character varying (255)	uts integer	uas integer
1	6	PETER	PARKER	93	97

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```
34 INSERT INTO MAHASISWA VALUES
35 (7, 'TARMIDZI', 'BARIQ', 80, 90),
36 (8, 'CHRIS', 'EVANS', 94, 91),
37 (9, 'TONY', 'STARK', 95, 96),
38 (10, 'BRUCE', 'WAYNE', 95, 95),
39 (11, 'TOM', 'HOLAND', 84, 98),
40 (12, 'PETER', 'PARKER', 93, 97);
41
42 -- SS5
43 SELECT * FROM MAHASISWA;
44
45 -- SS6
46 SELECT DISTINCT FIRST_NAME AS NAMA_DEPAN, UTS, UAS
47 FROM MAHASISWA;
48
49 -- DELETE DATA YANG DITAMBAHKAN
50 DELETE FROM MAHASISWA
51 WHERE ID_MAHASISWA > 6;
52
53 -- SS7
54 SELECT * FROM MAHASISWA
55 WHERE UTS = 93 AND UAS = 97;
56
57 -- SS8
58 SELECT * FROM MAHASISWA
59 WHERE NOT UTS = 93;
```

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Data Output Messages Notifications

	id_mahasiswa [PK] integer	first_name character varying (255)	last_name character varying (255)	uts integer	uas integer
1	1	TARMIDZI	BARIQ	80	90
2	2	CHRIS	EVANS	94	91
3	3	TONY	STARK	95	96
4	4	BRUCE	WAYNE	95	95
5	5	TOM	HOLAND	84	98

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Users

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Groups

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Constraints

```
42 -- SS5
43 SELECT * FROM MAHASISWA;
44
45 -- SS6
46 SELECT DISTINCT FIRST_NAME AS NAMA_DEPAN, UTS, UAS
47 FROM MAHASISWA;
48
49 -- DELETE DATA YANG DITAMBAHKAN
50 DELETE FROM MAHASISWA
51 WHERE ID_MAHASISWA > 6;
52
53 -- SS7
54 SELECT * FROM MAHASISWA
55 WHERE UTS = 93 AND UAS = 97;
56
57 -- SS8
58 SELECT * FROM MAHASISWA
59 WHERE NOT UTS = 93;
60
61 -- SS9
62 SELECT * FROM MAHASISWA
63 ORDER BY UTS ASC;
```

Data Output Messages Notifications

	id_mahasiswa [PK] integer	first_name character varying (255)	last_name character varying (255)	uts integer	uas integer
1	1	TARMIDZI	BARIQ	80	90
2	5	TOM	HOLAND	84	98
3	6	PETER	PARKER	93	97
4	2	CHRIS	EVANS	94	91
5	3	TONY	STARK	95	96
6	4	BRUCE	WAYNE	95	95

Total rows: 6 of 6 Query complete 00:00:00.110 Ln 63 Col 1

LIMIT

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Constraints

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Views

Queries

Functions

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Sequences

Users

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Indexes

Constraints

```
52
53 -- SS7
54 SELECT * FROM MAHASISWA
55 WHERE UTS = 93 AND UAS = 97;
56
57 -- SS8
58 SELECT * FROM MAHASISWA
59 WHERE NOT UTS = 93;
60
61 -- SS9
62 SELECT * FROM MAHASISWA
63 ORDER BY UTS ASC;
64
65 -- SS10
66 SELECT * FROM MAHASISWA
67 LIMIT 3;
```

Data Output Messages Notifications

	id_mahasiswa [PK] integer	first_name character varying (255)	last_name character varying (255)	uts integer	uas integer
1	1	TARMIDZI	BARIQ	80	90
2	2	CHRIS	EVANS	94	91
3	3	TONY	STARK	95	96

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TS Templates
Foreign Tables
Functions
Materialized Views
Operators
Procedures

```
51 WHERE ID_MAHASISWA > 6;  
52  
53 -- SS7  
54 SELECT * FROM MAHASISWA  
55 WHERE UTS = 93 AND UAS = 97;  
56  
57 -- SS8  
58 SELECT * FROM MAHASISWA  
59 WHERE NOT UTS = 93;  
60  
61 -- SS9  
62 SELECT * FROM MAHASISWA  
63 ORDER BY UTS ASC;  
64  
65 -- SS10  
66 SELECT * FROM MAHASISWA  
67 LIMIT 3;  
68  
69 -- SS11  
70 SELECT 10 + 5 AS "PENJUMLAHAN 10 + 5",  
71 |/25 AS "AKAR DARI 25";
```

Data Output Messages Notifications

	PENJUMLAHAN 10 + 5 integer	AKAR DARI 25 double precision
1	15	5

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```
53 -- SS7  
54 SELECT * FROM MAHASISWA  
55 WHERE UTS = 93 AND UAS = 97;  
56  
57 -- SS8  
58 SELECT * FROM MAHASISWA  
59 WHERE NOT UTS = 93;  
60  
61 -- SS9  
62 SELECT * FROM MAHASISWA  
63 ORDER BY UTS ASC;  
64  
65 -- SS10  
66 SELECT * FROM MAHASISWA  
67 LIMIT 3;  
68  
69 -- SS11  
70 SELECT 10 + 5 AS "PENJUMLAHAN 10 + 5",  
71 |/25 AS "AKAR DARI 25";  
72  
73 -- SS12  
74 SELECT COUNT(*) FROM MAHASISWA;
```

Data Output Messages Notifications

	count bigint
1	6

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Data Output Messages Notifications

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