

**TUGAS MANDIRI PERTEMUAN 14
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2024071020**

The screenshot shows the MySQL Workbench interface. On the left, the 'SCHEMAS' tree view is open, showing two schemas: 'db_latihan_dml' and 'laravel'. The 'laravel' schema is expanded, showing tables like 'buku', 'cache', 'cache_locks', 'failed_jobs', and 'inh_harshac'. The 'Information' tab is selected at the bottom left. In the main pane, a SQL editor window is open with the following code:

```
-- PRAKTIKUM 14 - DML (DATA MANIPULATION LANGUAGE)
-- 1. Buat database untuk latihan DML
CREATE DATABASE db_latihan_dml;
USE db_latihan_dml;
```

The code consists of 13 numbered lines. Lines 1-2 are comments, line 3 is another comment, lines 4-5 are the CREATE DATABASE and USE statements, and lines 6-13 are empty. Below the SQL editor is an 'Output' section with a progress bar. At the bottom is a table titled 'Action Output' with three rows of data:

#	Time	Action	Message
1	16:13:56	CREATE DATABASE db_latihan_dml	1 row(s) affected
2	16:13:59	USE db_latihan_dml	0 row(s) affected
3	16:14:03	USE db_latihan_dml	0 row(s) affected

```
7 -- 2. Buat tabel buku
8 • CREATE TABLE IF NOT EXISTS buku (
9     kode_buku VARCHAR(10) PRIMARY KEY,
10    judul VARCHAR(200),
11    pengarang VARCHAR(100),
12    penerbit VARCHAR(100),
13    thn_terbit INT,
14    harga INT
15 );
16
17
```

current caret position or to
toggle automatic help.

18 -- 3. Lihat struktur tabel

19 • DESCRIBE buku;

Result Grid		Filter Rows:			Export:	Wrap Cell Content:
	Field	Type	Null	Key	Default	Extra
▶	kode_buku	varchar(10)	NO	PRI	NULL	
	judul	varchar(200)	YES		NULL	
	pengarang	varchar(100)	YES		NULL	
	penerbit	varchar(100)	YES		NULL	
	thn_terbit	int(11)	YES		NULL	
	harga	int(11)	YES		NULL	

```

20    -- 4. Isi data tabel buku
21 •  INSERT INTO buku (kode_buku, judul, pengarang, penerbit, thn_terbit, harga) VALUES
22 ('BK01','Diagram UML','Penulis A','Graha Pustaka',2004,50000),
23 ('BK02','Basis Data','Dewi Lestari','Abadi Jaya',2003,45000),
24 ('BK03','Algoritma','Raden Kraton','Graha Pustaka',2006,60000),
25 ('BK04','Programming 1','Budi','Abadi Jaya',2001,35000),
26 ('BK05','Multimedia','Siti','Pustaka Kita',2007,30000);
27
28

```

Output:

Action Output		
#	Time	Action
1	16:13:56	CREATE DATABASE db_latihan_dml
2	16:13:59	USE db_latihan_dml
3	16:14:03	USE db_latihan_dml
4	16:14:41	CREATE TABLE IF NOT EXISTS buku (kode_buku VARCHAR(10) PRIMARY KE...
5	16:15:03	DESCRIBE buku
6	16:15:40	INSERT INTO buku (kode_buku, judul, pengarang, penerbit, thn_terbit, harga) VALUES ('BK01','Diagram UML','Penulis A','Graha Pustaka',2004,50000), ('BK02','Basis Data','Dewi Lestari','Abadi Jaya',2003,45000), ('BK03','Algoritma','Raden Kraton','Graha Pustaka',2006,60000), ('BK04','Programming 1','Budi','Abadi Jaya',2001,35000), ('BK05','Multimedia','Siti','Pustaka Kita',2007,30000);

29 -- 5. Tampilkan seluruh record descending harga

30 • SELECT * FROM buku ORDER BY harga DESC;

Result Grid						
	kode_buku	judul	pengarang	penerbit	thn_terbit	harga
▶	BK03	Algoritma	Raden Kraton	Graha Pustaka	2006	60000
	BK01	Diagram UML	Penulis A	Graha Pustaka	2004	50000
	BK02	Basis Data	Dewi Lestari	Abadi Jaya	2003	45000
	BK04	Programming 1	Budi	Abadi Jaya	2001	35000
*	BK05	Multimedia	Siti	Pustaka Kita	2007	30000
*	NULL	NULL	NULL	NULL	NULL	NULL

32 -- 6. Total harga

33 • SELECT SUM(harga) AS total_harga FROM buku;

34

35

36

Result Grid	
	total_harga
▶	220000

35 -- 7. Buku termurah

36 • SELECT * FROM buku WHERE harga = (SELECT MIN(harga) FROM buku);

37

38

39

Result Grid						
	kode_buku	judul	pengarang	penerbit	thn_terbit	harga
▶	BK05	Multimedia	Siti	Pustaka Kita	2007	30000
*	NULL	NULL	NULL	NULL	NULL	NULL

```

38      -- 8. Rata-rata harga
39 •   SELECT AVG(harga) AS rata_harga FROM buku;
40
41
42

```

Result Grid | Filter Rows: Export: Wrap

	rata_harga
▶	44000.0000

```

41      -- 9. Alias tabel bk
42 •   SELECT bk.judul, bk.penerbit, bk.harga FROM buku AS bk;

```

Result Grid | Filter Rows: Export: Wrap Cell Content: IA

	judul	penerbit	harga
▶	Diagram UML	Graha Pustaka	50000
	Basis Data	Abadi Jaya	45000
	Algoritma	Graha Pustaka	60000
	Programming 1	Abadi Jaya	35000
	Multimedia	Pustaka Kita	30000

```
44      -- 10. Jumlah data
```

```
45 •   SELECT COUNT(*) AS jumlah_data FROM buku;
```

Result Grid | Filter Rows: Export: Wrap

	jumlah_data
▶	5

```

47      -- 11. Update judul Diagram UML menjadi UML Dasar
48 •   UPDATE buku
49     SET judul = 'UML Dasar'
50     WHERE kode_buku = 'BK01';
51
52 •   COMMIT; /* End buku */ WHERE judul = 'Diagram UML' */

```

Action Output

Time	Action	Message	Duration / Fetch
12:16:55	SELECT COUNT(*) AS jumlah_data FROM buku LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
13:16:17	UPDATE buku SET judul = 'UML Dasar' WHERE judul = 'Diagram UML'	Error Code: 1175. You are using safe update mode and you tried to update a table ...	0.000 sec
14:16:19:59	UPDATE buku SET judul = 'UML Dasar' WHERE judul = 'Diagram UML'	Error Code: 1175. You are using safe update mode and you tried to update a table ...	0.000 sec
15:16:20:12	SELECT * FROM buku WHERE judul = 'Diagram UML' LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
16:16:20:47	UPDATE buku SET judul = 'UML Dasar' WHERE judul = 'Diagram UML'	Error Code: 1175. You are using safe update mode and you tried to update a table ...	0.000 sec
17:16:21:01	UPDATE buku SET judul = 'UML Dasar' WHERE kode_buku = 'BK01'	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.015 sec

```

55      -- 12. Insert BK06
56 •  INSERT INTO buku (kode_buku, judul, pengarang, penerbit, thn_terbit, harga)
57   VALUES ('BK06','Algoritma Lanjut','Raden Kraton','Graha Pustaka',2005,40000);
58
59      -- 13. Hapus BK05 dan tampilkan isi tabel
60 •  DELETE FROM buku WHERE kode_buku = 'BK05';
61 •  SELECT * FROM buku;
62
63
64
65
66
67      -- PRAKTIKUM 15 - OPERATOR
68
69      -- Buat database latihan operator
70 •  CREATE DATABASE db_latihan_operator;
71 •  USE db_latihan_operator;
72      -- Buat tabel member
73 •  CREATE TABLE IF NOT EXISTS member (
74       id_member INT AUTO_INCREMENT PRIMARY KEY,
75       nama_member VARCHAR(100),
76       semester INT,
77       usia INT,
78       alamat VARCHAR(200)
79     );
80
81
82
83
84
85
86      ('Rani',1,18,'Jl. Rambutan'),
87      ('Rino',5,22,'Jl. Mangga');
88
89      -- 7. Tampilkan seluruh record
90 •  SELECT * FROM members;

```

Output:

#	Time	Action	Message	Duration / Fetch
13	16:19:17	UPDATE buku SET judul = 'UML Dasar' WHERE judul = 'Diagram UML'	Error Code: 1175. You are using safe update mode and you tried to update a table ...	0.000 sec / 0.000 sec
14	16:19:59	UPDATE buku SET judul = 'UML Dasar' WHERE judul = 'Diagram UML'	Error Code: 1175. You are using safe update mode and you tried to update a table ...	0.000 sec / 0.000 sec
15	16:20:12	SELECT * FROM buku WHERE judul = 'Diagram UML' LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
16	16:20:47	UPDATE buku SET judul = 'UML Dasar' WHERE judul = 'Diagram UML'	Error Code: 1175. You are using safe update mode and you tried to update a table ...	0.000 sec / 0.000 sec
17	16:21:01	UPDATE buku SET judul = 'UML Dasar' WHERE kode_buku = 'BK01'	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.015 sec
18	16:21:44	INSERT INTO buku (kode_buku, judul, pengarang, penerbit, thn_terbit, harga) VALUES ('BK05','Algoritma Lanjut','Raden Kraton','Graha Pustaka',2005,40000);	1 row(s) affected	0.000 sec
19	16:22:06	DELETE FROM buku WHERE kode_buku = 'BK05'	1 row(s) affected	0.000 sec

Output:

#	Time	Action	Message	Duration / Fetch
14	16:20:12	UPDATE buku SET judul = 'UML Dasar' WHERE judul = 'Diagram UML'	Error Code: 1175. You are using safe update mode and you tried to update a table ...	0.000 sec / 0.000 sec
15	16:20:47	SELECT * FROM buku WHERE judul = 'Diagram UML' LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
16	16:21:01	UPDATE buku SET judul = 'UML Dasar' WHERE kode_buku = 'BK01'	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.015 sec
17	16:21:44	INSERT INTO buku (kode_buku, judul, pengarang, penerbit, thn_terbit, harga) VALUES ('BK05','Algoritma Lanjut','Raden Kraton','Graha Pustaka',2005,40000);	1 row(s) affected	0.000 sec
18	16:22:06	DELETE FROM buku WHERE kode_buku = 'BK05'	1 row(s) affected	0.000 sec

Output:

#	Time	Action	Message	Duration / Fetch
17	16:21:01	UPDATE buku SET judul = 'UML Dasar' WHERE kode_buku = 'BK01'	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.000 sec / 0.000 sec
18	16:21:44	INSERT INTO buku (kode_buku, judul, pengarang, penerbit, thn_terbit, harga) VALUES ('BK05','Algoritma Lanjut','Raden Kraton','Graha Pustaka',2005,40000);	1 row(s) affected	0.000 sec
19	16:22:06	DELETE FROM buku WHERE kode_buku = 'BK05'	1 row(s) affected	0.000 sec
20	16:22:39	CREATE DATABASE db_latihan_operator	1 row(s) affected	0.000 sec
21	16:22:42	USE db_latihan_operator	0 row(s) affected	0.000 sec
22	16:22:54	CREATE TABLE IF NOT EXISTS member (id_member INT AUTO_INCREMENT ...	0 row(s) affected	0.000 sec

Output:

#	Time	Action	Message	Duration / Fetch
17	16:21:01	UPDATE buku SET judul = 'UML Dasar' WHERE kode_buku = 'BK01'	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.000 sec / 0.000 sec
18	16:21:44	INSERT INTO buku (kode_buku, judul, pengarang, penerbit, thn_terbit, harga) VALUES ('BK05','Algoritma Lanjut','Raden Kraton','Graha Pustaka',2005,40000);	1 row(s) affected	0.000 sec
19	16:22:06	DELETE FROM buku WHERE kode_buku = 'BK05'	1 row(s) affected	0.000 sec
20	16:22:39	CREATE DATABASE db_latihan_operator	1 row(s) affected	0.000 sec
21	16:22:42	USE db_latihan_operator	0 row(s) affected	0.000 sec
22	16:22:54	CREATE TABLE IF NOT EXISTS member (id_member INT AUTO_INCREMENT ...	0 row(s) affected	0.000 sec
23	16:23:13	INSERT INTO member (nama_member, semester, usia, alamat) VALUES ('Emi Susanti',1,18,'Jl. Rambutan')	5 row(s) affected Records: 5 Duplicates: 0 Warnings: 0	0.000 sec
24	16:23:18	SELECT * FROM member LIMIT 0, 1000	5 row(s) returned	0.000 sec

```
92      -- 8. Nama = Erni Susanti  
93 •   SELECT * FROM member WHERE nama_member = 'Erni Susanti';
```

	id_member	nama_member	semester	usia	alamat
▶ *	1 NULL	Erni Susanti NULL	3 NULL	20 NULL	Jl. Melati NULL

```
95      -- 9. Usia < 21  
96 •   SELECT * FROM member WHERE usia < 21;
```

	id_member	nama_member	semester	usia	alamat
▶	1	Erni Susanti	3	20	Jl. Melati
	2	Rere Kurnia	2	19	Jl. Mawar
*	4 NULL	Rani NULL	1 NULL	18 NULL	Jl. Rambutan NULL

```
98      -- 10. Kecuali Rere Kurnia  
99 •   SELECT * FROM member WHERE nama_member <> 'Rere Kurnia';
```

	id_member	nama_member	semester	usia	alamat
▶	1	Erni Susanti	3	20	Jl. Melati
	3	Andi Pratama	4	21	Jl. Kenanga
	4	Rani	1	18	Jl. Rambutan
*	5 NULL	Rino NULL	5 NULL	22 NULL	Jl. Mangga NULL

```
101     -- 11. Field nama_member, semester, urut semester  
102 •   SELECT nama_member, semester FROM member ORDER BY semester;
```

	nama_member	semester
▶	Rani	1
	Rere Kurnia	2
	Erni Susanti	3
	Andi Pratama	4
	Rino	5

```
104      -- 12. Usia between 19-20
```

```
105 •  SELECT nama_member, semester, usia FROM member WHERE usia BETWEEN 19 AND 20;
```

	nama_member	semester	usia
▶	Erni Susanti	3	20
▶	Rere Kurnia	2	19

```
107      -- 13. usia > 18 AND semester > 2
```

```
108 •  SELECT * FROM member WHERE usia > 18 AND semester > 2;
```

	id_member	nama_member	semester	usia	alamat
▶	1	Erni Susanti	3	20	Jl. Melati
▶	3	Andi Pratama	4	21	Jl. Kenanga
▶	5	Rino	5	22	Jl. Mangga
*	NULL	NULL	NULL	NULL	NULL

```
110      -- 14. usia > 18 OR semester > 2
```

```
111 •  SELECT * FROM member WHERE usia > 18 OR semester > 2;
```

	id_member	nama_member	semester	usia	alamat
▶	1	Erni Susanti	3	20	Jl. Melati
▶	2	Rere Kurnia	2	19	Jl. Mawar
▶	3	Andi Pratama	4	21	Jl. Kenanga
▶	5	Rino	5	22	Jl. Mangga
*	NULL	NULL	NULL	NULL	NULL

```
113      -- 15. Nama depan huruf R
```

```
114 •  SELECT nama_member, alamat FROM member WHERE nama_member LIKE 'R%' ORDER BY nama_member;
```

	nama_member	alamat
▶	Rani	Jl. Rambutan
▶	Rere Kurnia	Jl. Mawar
▶	Rino	Jl. Mangga

```
116      -- 16. usia > 18, urut nama desc
```

```
117 •  SELECT nama_member, alamat, usia FROM member WHERE usia > 18 ORDER BY nama_member DESC;
```

	nama_member	alamat	usia
▶	Rino	Jl. Mangga	22
▶	Rere Kurnia	Jl. Mawar	19
▶	Erni Susanti	Jl. Melati	20
▶	Andi Pratama	Jl. Kenanga	21

```
119      -- 17. LIMIT 4
120 •  SELECT * FROM member LIMIT 4;
121
```

	id_member	nama_member	semester	usia	alamat
▶	1	Erni Susanti	3	20	Jl. Melati
	2	Rere Kurnia	2	19	Jl. Mawar
	3	Andi Pratama	4	21	Jl. Kenanga
*	4	Rani	1	18	Jl. Rambutan
*	NUL	NUL	NUL	NUL	NUL

```
122      -- 18. LIMIT 5 urut semester desc
123 •  SELECT * FROM member ORDER BY semester DESC LIMIT 5;
124
```

	id_member	nama_member	semester	usia	alamat
▶	5	Rino	5	22	Jl. Mangga
	3	Andi Pratama	4	21	Jl. Kenanga
	1	Erni Susanti	3	20	Jl. Melati
	2	Rere Kurnia	2	19	Jl. Mawar
*	4	Rani	1	18	Jl. Rambutan
*	NUL	NUL	NUL	NUL	NUL

```
125      -- 19. Record ke-2 sampai ke-4
126 •  SELECT * FROM member LIMIT 1,3;
127
```

	id_member	nama_member	semester	usia	alamat
▶	2	Rere Kurnia	2	19	Jl. Mawar
	3	Andi Pratama	4	21	Jl. Kenanga
	4	Rani	1	18	Jl. Rambutan
*	NUL	NUL	NUL	NUL	NUL

```

128      -- 20. Record ke-1 sampai ke-4 urut id_member
129 •   SELECT * FROM member ORDER BY id_member LIMIT 0,4;
130

```

Result Grid | Filter Rows: Edit: Export

	id_member	nama_member	semester	usia	alamat
▶	1	Erni Susanti	3	20	Jl. Melati
	2	Rere Kurnia	2	19	Jl. Mawar
	3	Andi Pratama	4	21	Jl. Kenanga
*	4	Rani	1	18	Jl. Rambutan
	NULL	NULL	NULL	NULL	NULL

```

137      -- Buat database
138 •   CREATE DATABASE db_toko;
139 •   USE db_toko;
140
141      -- Buat tabel brg
142 •   CREATE TABLE IF NOT EXISTS brg (
143         kode_brg VARCHAR(6) PRIMARY KEY,
144         nama_brg VARCHAR(100),
145         stok INT,
146         harga_brg INT,
147         thn_pembuatan INT,
148         warna VARCHAR(30)
149     );
150

```

Output

Action Output

#	Time	Action	Message
35	16:27:52	SELECT * FROM member ORDER BY semester DESC LIMIT 5	5 row(s) returned
36	16:28:12	SELECT * FROM member LIMIT 1,3	3 row(s) returned
37	16:28:32	SELECT * FROM member ORDER BY id_member LIMIT 0,4	4 row(s) returned
38	16:29:04	CREATE DATABASE db_toko	1 row(s) affected
39	16:29:06	USE db_toko	0 row(s) affected
40	16:29:08	CREATE TABLE IF NOT EXISTS brg (kode_brg VARCHAR(6) PRIMARY KEY, ...)	0 row(s) affected

```

156      ('BR04','Kipas',90,90000,2000,'Biru'),
157      ('BR05','Monitor',50,450000,1999,'Hitam');
158
159      -- 6. Tampilkan semua
160 •   SELECT * FROM brg;

```

Result Grid | Filter Rows: Edit: Export/Import: Print: | W

	kode_brg	nama_brg	stok	harga_brg	thn_pembuatan	warna
▶	BR01	Terminal	150	120000	2003	Hitam
	BR02	Charger	300	25000	2005	Putih
	BR03	Cable	180	15000	2002	Merah
	BR04	Kipas	90	90000	2000	Biru
*	BR05	Monitor	50	450000	1999	Hitam
	NULL	NULL	NULL	NULL	NULL	NULL

```
162      -- 7. kode_brg, nama_brg, stok urut nama  
163 •  SELECT kode_brg, nama_brg, stok FROM brg ORDER BY nama_brg ASC;
```

	kode_brg	nama_brg	stok
▶	BR03	Cable	180
	BR02	Charger	300
	BR04	Kipas	90
	BR05	Monitor	50
*	BR01	Terminal	150
*	NULL	NULL	NULL

```
165      -- 8. nama_barang = Terminal  
166 •  SELECT * FROM brg WHERE nama_brg = 'Terminal';
```

	kode_brg	nama_brg	stok	harga_brg	thn_pembuatan	warna
▶	BR01	Terminal	150	120000	2003	Hitam
*	NULL	NULL	NULL	NULL	NULL	NULL

```
168      -- 9. nama_barang awalan C  
169 •  SELECT * FROM brg WHERE nama_brg LIKE 'C%';  
170  
171      -- 10. stok < 200  
172 •  SELECT kode_brg, nama_brg, harga_brg, stok FROM
```

	kode_brg	nama_brg	stok	harga_brg	thn_pembuatan	warna
▶	BR02	Charger	300	25000	2005	Putih
	BR03	Cable	180	15000	2002	Merah
*	NULL	NULL	NULL	NULL	NULL	NULL

```
171      -- 10. stok < 200  
172 •  SELECT kode_brg, nama_brg, harga_brg, stok FROM brg WHERE stok < 200;
```

	kode_brg	nama_brg	harga_brg	stok
▶	BR01	Terminal	120000	150
	BR03	Cable	15000	180
	BR04	Kipas	90000	90
	BR05	Monitor	450000	50
*	NULL	NULL	NULL	NULL

```
174      -- 11. Tahun 2002-2006
```

```
175 •  SELECT * FROM brg WHERE thn_pembuatan BETWEEN 2002 AND 2006;
```

	kode_brg	nama_brg	stok	harga_brg	thn_pembuatan	warna
▶	BR01	Terminal	150	120000	2003	Hitam
	BR02	Charger	300	25000	2005	Putih
	BR03	Cable	180	15000	2002	Merah
*	NULL	NULL	NULL	NULL	NULL	NULL

```
177      -- 12. LIMIT 3
```

```
178 •  SELECT * FROM brg LIMIT 3;
```

	kode_brg	nama_brg	stok	harga_brg	thn_pembuatan	warna
▶	BR01	Terminal	150	120000	2003	Hitam
	BR02	Charger	300	25000	2005	Putih
	BR03	Cable	180	15000	2002	Merah
*	NULL	NULL	NULL	NULL	NULL	NULL

```
180      -- 13. stok < 200 AND tahun 2000
```

```
181 •  SELECT * FROM brg WHERE stok < 200 AND thn_pembuatan = 2000;
```

	kode_brg	nama_brg	stok	harga_brg	thn_pembuatan	warna
▶	BR04	Kipas	90	90000	2000	Biru
*	NULL	NULL	NULL	NULL	NULL	NULL

```
183      -- 14. Record 2-4
```

```
184 •  SELECT * FROM brg ORDER BY kode_brg LIMIT 1,3;
```

	kode_brg	nama_brg	stok	harga_brg	thn_pembuatan	warna
▶	BR02	Charger	300	25000	2005	Putih
	BR03	Cable	180	15000	2002	Merah
	BR04	Kipas	90	90000	2000	Biru
*	NULL	NULL	NULL	NULL	NULL	NULL

```
186      -- 15. kecuali BR05
187 •   SELECT * FROM brg WHERE kode_brg <> 'BR05';
```

	kode_brg	nama_brg	stok	harga_brg	thn_pembuatan	warna
▶	BR01	Terminal	150	120000	2003	Hitam
	BR02	Charger	300	25000	2005	Putih
	BR03	Cable	180	15000	2002	Merah
	BR04	Kipas	90	90000	2000	Biru
*	NULL	NULL	NULL	NULL	NULL	NULL

```
193      -- PRAKTIKUM 17 - AGREGASI
194
195 •   CREATE DATABASE db_dml_operator;
196 •   USE db_dml_operator;
197
198      -- Tabel pengajar
199 •   CREATE TABLE IF NOT EXISTS pengajar (
200          id_pengajar INT AUTO_INCREMENT PRIMARY KEY,
201          nama VARCHAR(100),
202          sks INT,
203          gaji INT,
204          kota_asal VARCHAR(50)
205      );
```

Output		
#	Time	Action
49	16:32:24	SELECT * FROM brg WHERE stok < 200 AND thn_pembuatan = 2000 LIMIT 0, 10...
50	16:32:42	SELECT * FROM brg ORDER BY kode_brg LIMIT 1,3
51	16:32:59	SELECT * FROM brg WHERE kode_brg <> 'BR05' LIMIT 0, 1000
52	16:33:28	CREATE DATABASE db_dml_operator
53	16:33:31	USE db_dml_operator
54	16:33:38	CREATE TABLE IF NOT EXISTS pengajar (id_pengajar INT AUTO_INCREMEN...

```
211      ('Guru C',5,3500000,'Denpasar'),  
212      ('Guru D',2,2000000,'Gianyar');  
213  
214      -- 7. Semua record urut desc gaji  
215 •  SELECT * FROM pengajar ORDER BY gaji DESC;
```

Result Grid | Filter Rows: Edit: |

	id_pengajar	nama	skls	gaji	kota_asal
▶	3	Guru C	5	3500000	Denpasar
	1	Guru A	4	3000000	Denpasar
	2	Guru B	3	2500000	Singaraja
*	4	Guru D	2	2000000	Gianyar

```
217      -- 8. rata gaji  
218 •  SELECT AVG(gaji) AS rata_gaji FROM pengajar;
```

Result Grid | Filter Rows: Export: | Wrap

rata_gaji
2750000.0000

```
220      -- 9. gaji terendah  
221 •  SELECT MIN(gaji) AS gaji_terendah FROM pengajar;
```

Result Grid | Filter Rows: Export: | Wrap Cell Co

gaji_terendah
2000000

```
223      -- 10. total gaji  
224 •  SELECT SUM(gaji) AS total_gaji FROM pengajar;
```

Result Grid | Filter Rows: Export: | Wrap

total_gaji
11000000

```
226      -- 11. total gaji pengajar sks > 3
227 •   SELECT SUM(gaji) AS total_gaji_sks_lebih3 FROM pengajar WHERE sks > 3;
```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
total_gaji_sks_lebih3				

▶ 6500000

```
229      -- 12. distinct kota_asal
230 •   SELECT DISTINCT kota_asal FROM pengajar ORDER BY kota_asal;
```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
kota_asal				

▶ Denpasar
Gianyar
Singaraja

```
232      -- 13. alias rata_gaji
233 •   SELECT AVG(gaji) AS rata_gaji FROM pengajar;
```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
rata_gaji				

▶ 2750000.0000

```
235      -- 14. alias tabel tp
236 •   SELECT tp.nama, tp.sks, tp.gaji FROM pengajar AS tp;
```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
	nama	sks	gaji	
▶	Guru A	4	3000000	
	Guru B	3	2500000	
	Guru C	5	3500000	
	Guru D	2	2000000	

```
238      -- 17. hasil = sks * gaji
```

```
239 •   SELECT nama, sks, gaji, (sks * gaji) AS hasil FROM pengajar;
```

Result Grid | Filter Rows: Export: Wrap Cell Content:

	nama	sks	gaji	hasil
▶	Guru A	4	3000000	12000000
	Guru B	3	2500000	7500000
	Guru C	5	3500000	17500000
	Guru D	2	2000000	4000000

```
241      -- 18. bonus = sks * 100000
```

```
242 •   SELECT nama, sks, (sks * 100000) AS bonus FROM pengajar;
```

Result Grid | Filter Rows: Export: Wrap Cell Content:

	nama	sks	bonus
▶	Guru A	4	400000
	Guru B	3	300000
	Guru C	5	500000
	Guru D	2	200000

```
244      -- 19. gaji terbesar
```

```
245 •   SELECT MAX(gaji) AS gaji_terbesar FROM pengajar;
```

Result Grid | Filter Rows: Export: Wrap Cell Content:

	gaji_terbesar
▶	3500000

```
247      -- 20. tunjangan = sks * 250000
```

```
248 •   SELECT nama, sks, (sks * 250000) AS tunjangan FROM pengajar ORDER BY tunjangan DESC;
```

Result Grid | Filter Rows: Export: Wrap Cell Content:

	nama	sks	tunjangan
▶	Guru C	5	1250000
	Guru A	4	1000000
	Guru B	3	750000
	Guru D	2	500000