

PRAKTIKUM BASIS DATA BERSAMA DOSEN PRAKTISI

“STORED PROCEDURE”



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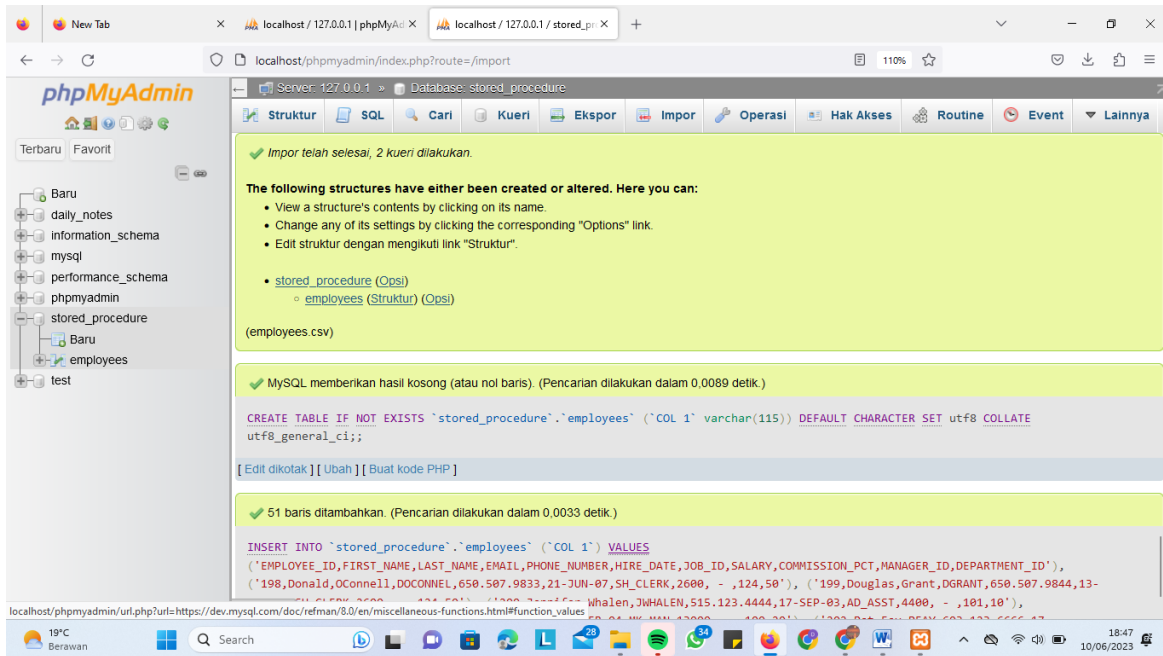
Dosen
Rakhmadina Noviyanti

**PS D-III TEKNIK INFORMATIKA
SEKOLAH VOKASI UNIVERSITAS
SEBELAS MARET
2023**

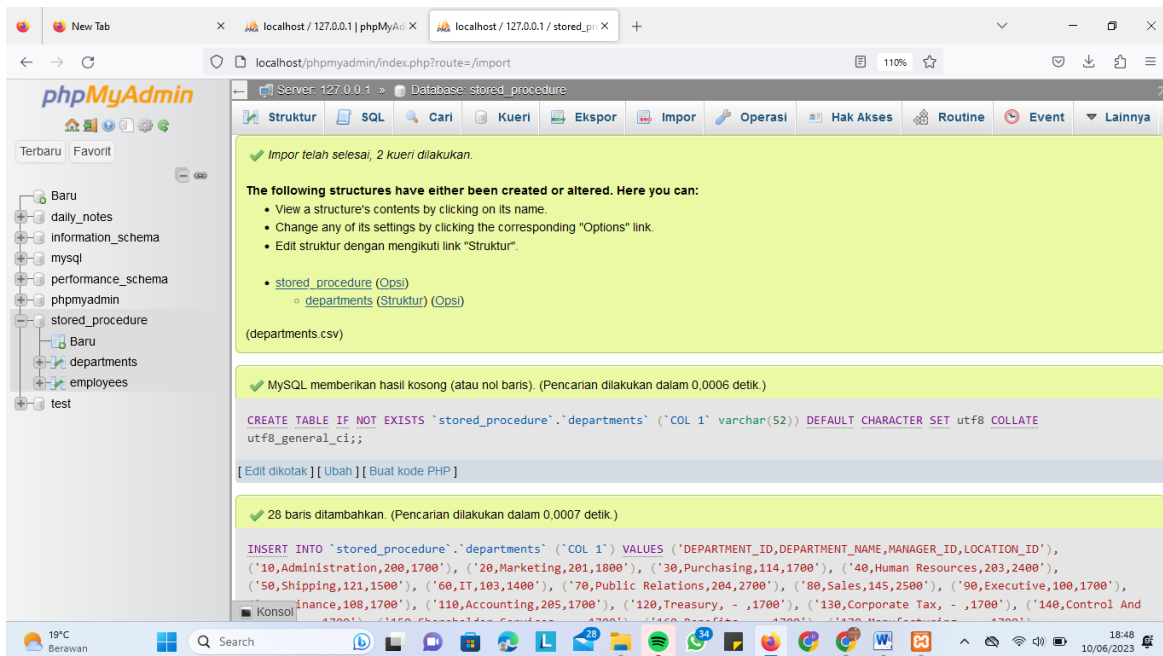
TUGAS STORED PROCEDURE

Lakukan import table Employee dan Departement!

Import table Employee :



Import table Departements:



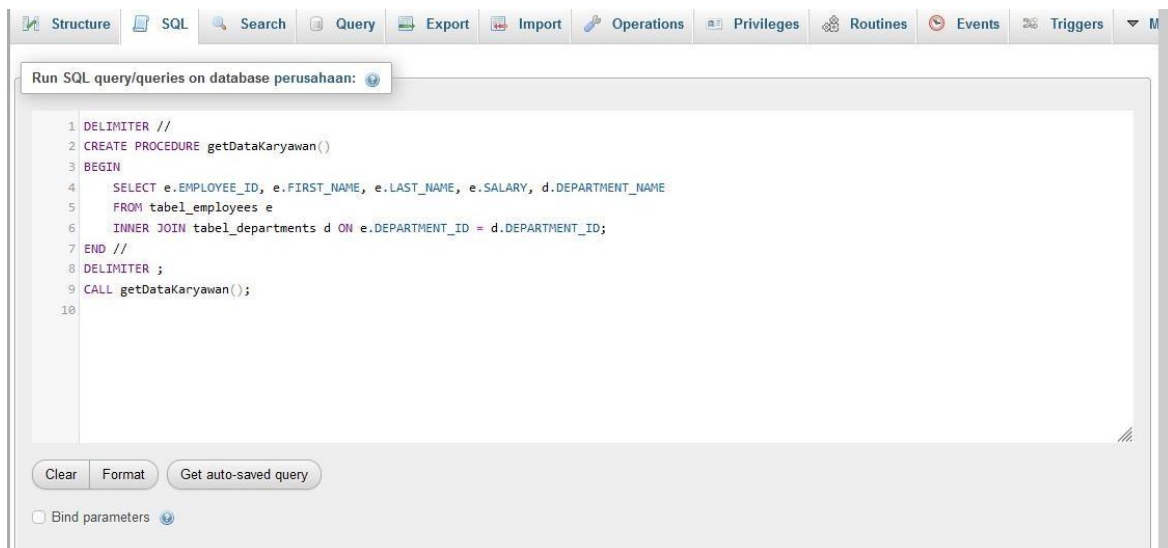
SOAL & JAWABAN :

Berdasarkan tabel “employee” dan “departement” diatas maka:

1. Buatlah sebuah procedure dengan nama “getDataKaryawan” yang digunakan menampilkan data employee pada tabel “employee” dan “department” yang menampilkan employee_id, firstname, lastname, salary, department_name!

Jawab:

QUERY :

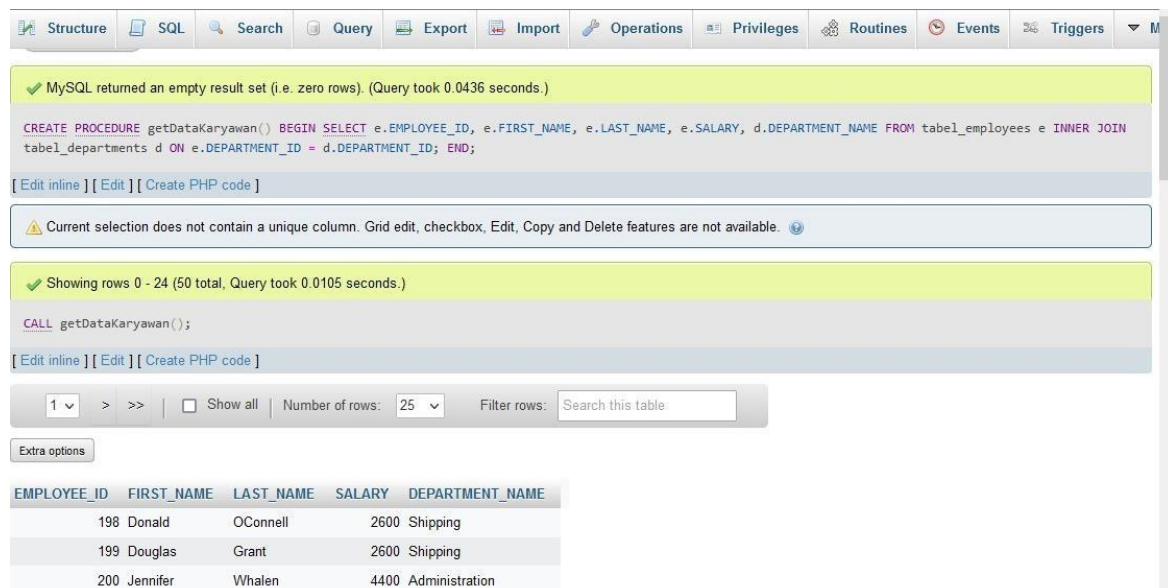


```
1 DELIMITER //
2 CREATE PROCEDURE getDataKaryawan()
3 BEGIN
4     SELECT e.EMPLOYEE_ID, e.FIRST_NAME, e.LAST_NAME, e.SALARY, d.DEPARTMENT_NAME
5     FROM tabel_employees e
6     INNER JOIN tabel_departments d ON e.DEPARTMENT_ID = d.DEPARTMENT_ID;
7 END //
8 DELIMITER ;
9 CALL getDataKaryawan();
10
```

Clear Format Get auto-saved query

☐ Bind parameters

HASIL :



✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0436 seconds.)

```
CREATE PROCEDURE getDataKaryawan() BEGIN SELECT e.EMPLOYEE_ID, e.FIRST_NAME, e.LAST_NAME, e.SALARY, d.DEPARTMENT_NAME FROM tabel_employees e INNER JOIN tabel_departments d ON e.DEPARTMENT_ID = d.DEPARTMENT_ID; END;
```

[Edit inline] [Edit] [Create PHP code]

⚠ Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

✓ Showing rows 0 - 24 (50 total, Query took 0.0105 seconds.)

```
CALL getDataKaryawan();
```

[Edit inline] [Edit] [Create PHP code]

1 > >> ☐ Show all Number of rows: 25 Filter rows: Search this table

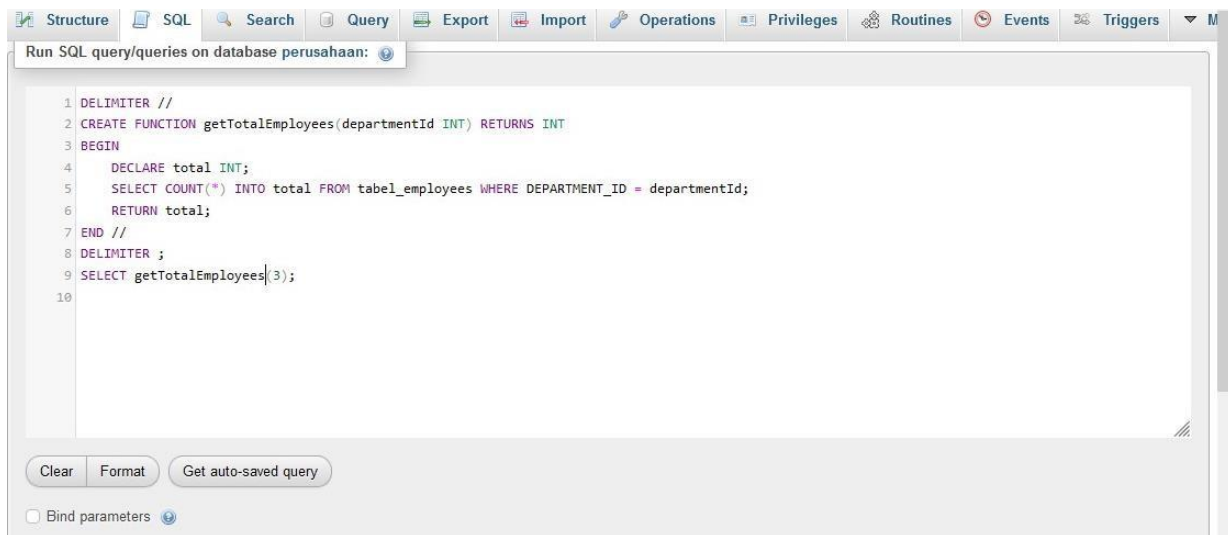
Extra options

| EMPLOYEE_ID | FIRST_NAME | LAST_NAME | SALARY | DEPARTMENT_NAME |
|-------------|------------|-----------|--------|-----------------|
| 198 | Donald | OConnell | 2600 | Shipping |
| 199 | Douglas | Grant | 2600 | Shipping |
| 200 | Jennifer | Whalen | 4400 | Administration |

2. Buatlah sebuah function dengan nama “getTotalEmployee” untuk menghitung jumlah karyawan berdasarkan kriteria input department id!

Jawab:

QUERY :

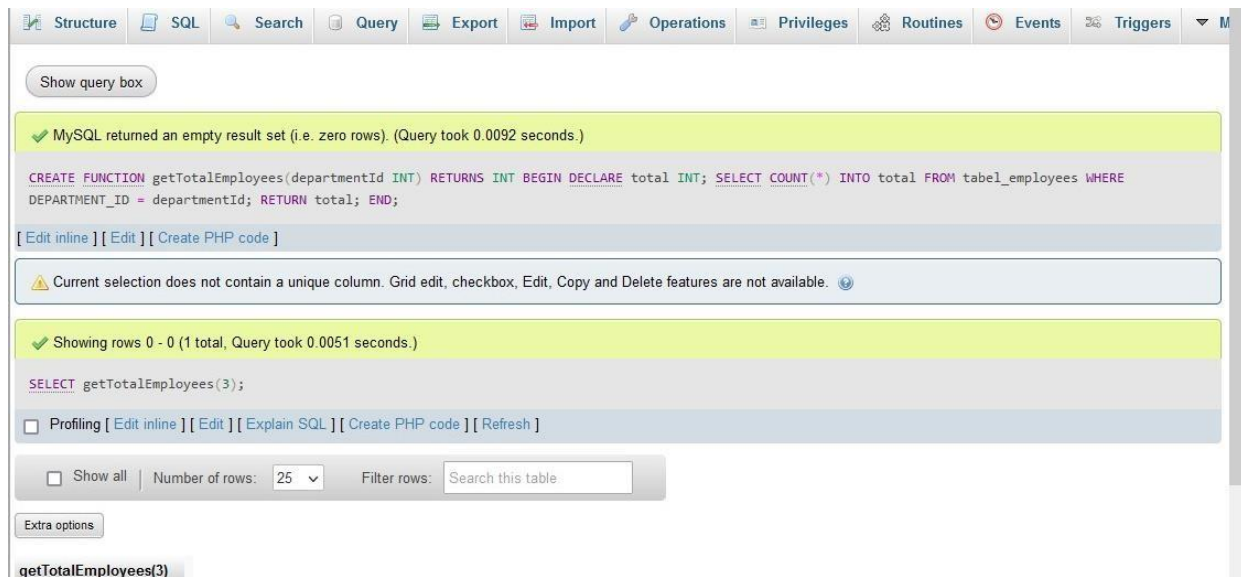


The screenshot shows a SQL IDE interface with a menu bar (Structure, SQL, Search, Query, Export, Import, Operations, Privileges, Routines, Events, Triggers) and a toolbar. The main text area contains the following SQL code:

```
1 DELIMITER //
2 CREATE FUNCTION getTotalEmployees(departmentId INT) RETURNS INT
3 BEGIN
4     DECLARE total INT;
5     SELECT COUNT(*) INTO total FROM tabel_employees WHERE DEPARTMENT_ID = departmentId;
6     RETURN total;
7 END //
8 DELIMITER ;
9 SELECT getTotalEmployees(3);
10
```

Below the code area are buttons for "Clear", "Format", and "Get auto-saved query". At the bottom left, there is a checkbox labeled "Bind parameters" which is currently unchecked.

HASIL :



The screenshot shows the same SQL IDE interface, but now displaying the execution results. The top status bar indicates "MySQL returned an empty result set (i.e. zero rows). (Query took 0.0092 seconds.)". Below this, the SQL code for the function creation is shown. A warning message states: "Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available." Below the warning, the execution results are shown: "Showing rows 0 - 0 (1 total, Query took 0.0051 seconds.)". The SQL code for the function call is displayed: `SELECT getTotalEmployees(3);`. Below the results, there are buttons for "Profiling", "Edit inline", "Edit", "Explain SQL", "Create PHP code", and "Refresh". At the bottom, there is a "Show all" checkbox, a "Number of rows" dropdown set to "25", and a "Filter rows" search box. The "Extra options" button is also visible.

3. Buatlah procedure “inputEmployee” yang digunakan untuk mempermudah pengisian data pada tabel “employee”!

Jawab:

QUERY :

The image displays two screenshots of the phpMyAdmin web interface, showing the process of creating and executing a stored procedure.

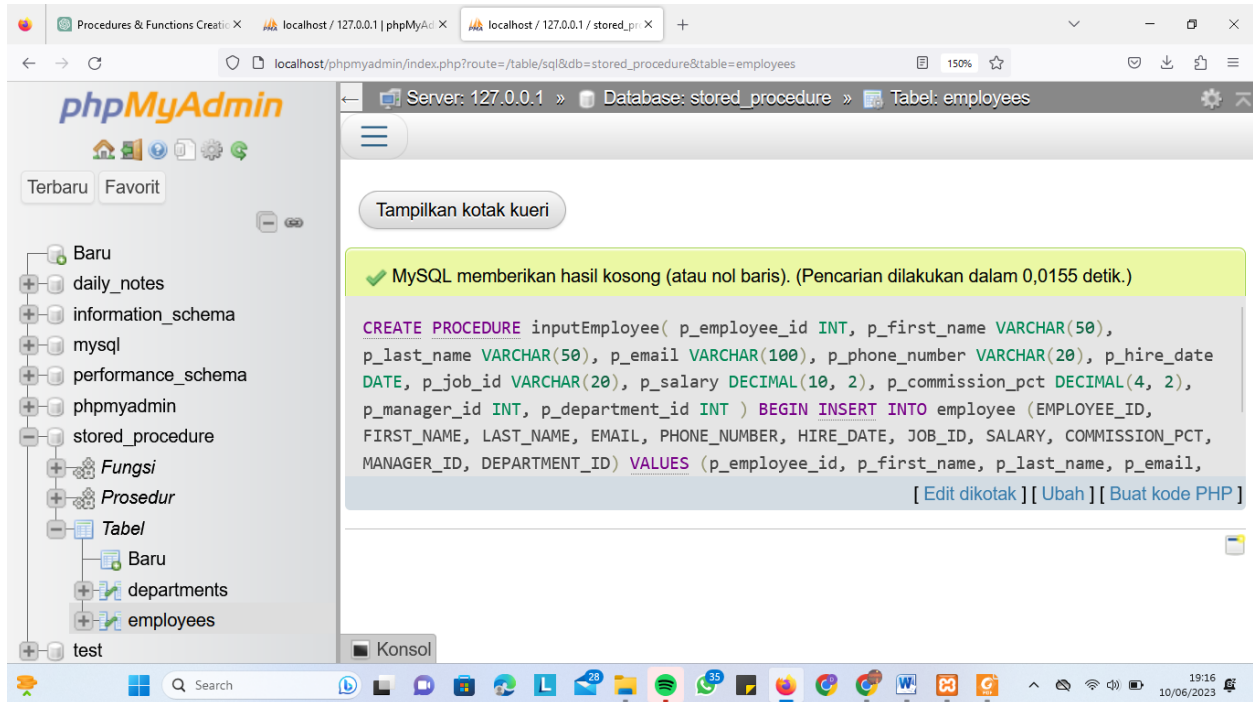
Top Screenshot: The interface shows the 'Database: stored_procedure' and 'Tabel: employees' selected. The SQL editor contains the following code:

```
1 DELIMITER //
2
3 CREATE PROCEDURE inputEmployee(
4     p_employee_id INT,
5     p_first_name VARCHAR(50),
6     p_last_name VARCHAR(50),
7     p_email VARCHAR(100),
8     p_phone_number VARCHAR(20),
9     p_hire_date DATE,
10    p_job_id VARCHAR(20),
11    p_salary DECIMAL(10, 2),
12    p_commission_pct DECIMAL(4, 2),
13    p_manager_id INT,
14    p_department_id INT
15 )
```

Bottom Screenshot: The same interface is shown, but the SQL editor now contains the following code:

```
13    p_manager_id INT,
14    p_department_id INT
15 )
16 BEGIN
17     INSERT INTO employee (EMPLOYEE_ID, FIRST_NAME, LAST_NAME, EMAIL,
18     PHONE_NUMBER, HIRE_DATE, JOB_ID, SALARY, COMMISSION_PCT, MANAGER_ID,
19     DEPARTMENT_ID)
20     VALUES (p_employee_id, p_first_name, p_last_name, p_email,
21     p_phone_number, p_hire_date, p_job_id, p_salary, p_commission_pct,
22     p_manager_id, p_department_id);
23 END //
24 DELIMITER ;
```

HASIL :



4. Buatlah tabel baru dengan nama “KaryawanKeluar” yang terdiri dari kolom employee_id dan tgl_hapus, dimana fungsinya adalah mencatat data siswa yang dihapus dari tabel “data_employee”, kemudian buatlah trigger untuk menjalankan fungsi tersebut!

Jawab:

Jalankan query untuk membuat tabel "KaryawanKeluar":

QUERY :

The image consists of two screenshots of the phpMyAdmin web interface, demonstrating the creation of a new table.

Top Screenshot: The interface shows the 'Database: stored_procedure' and 'Tabel: employees' view. A SQL query is entered in the 'Run SQL query/queries on table stored_procedure.employees:' box:

```
1 CREATE TABLE KaryawanKeluar (  
2     employee_id INT,  
3     tgl_hapus DATE  
4 );  
5
```

Bottom Screenshot: The interface shows the 'Database: stored_procedure' view. The table 'karyawankeluar' is listed in the table structure view, circled in red. Below the table list, the 'Create new table' form is visible, showing the 'Nama tabel' field and the 'Jumlah kolom' field set to 4. A red arrow points from the 'Jumlah' label to the 'Jumlah kolom' field.

HASIL :

StructureSQLSearchQueryExportImportOperationsPrivilegesRoutinesEventsTriggers

Run SQL query/queries on database perusahaan:

```
1 DELETE FROM tabel_employees WHERE employee_id = 198;
```

ClearFormatGet auto-saved query

BrowseStructureSQLSearchInsertExportImportPrivilegesOperationsTriggers

Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

Showing rows 0 - 0 (1 total, Query took 0.0006 seconds.)

```
SELECT * FROM `karyawanke1uar`
```

☐ Profiling [\[Edit inline \]](#) [\[Edit \]](#) [\[Explain SQL \]](#) [\[Create PHP code \]](#) [\[Refresh \]](#)

☐ Show all | Number of rows: 25 Filter rows:

Extra options

| employee_id | tgl_hapus |
|-------------|------------|
| 198 | 2023-06-10 |

☐ Show all | Number of rows: 25 Filter rows:

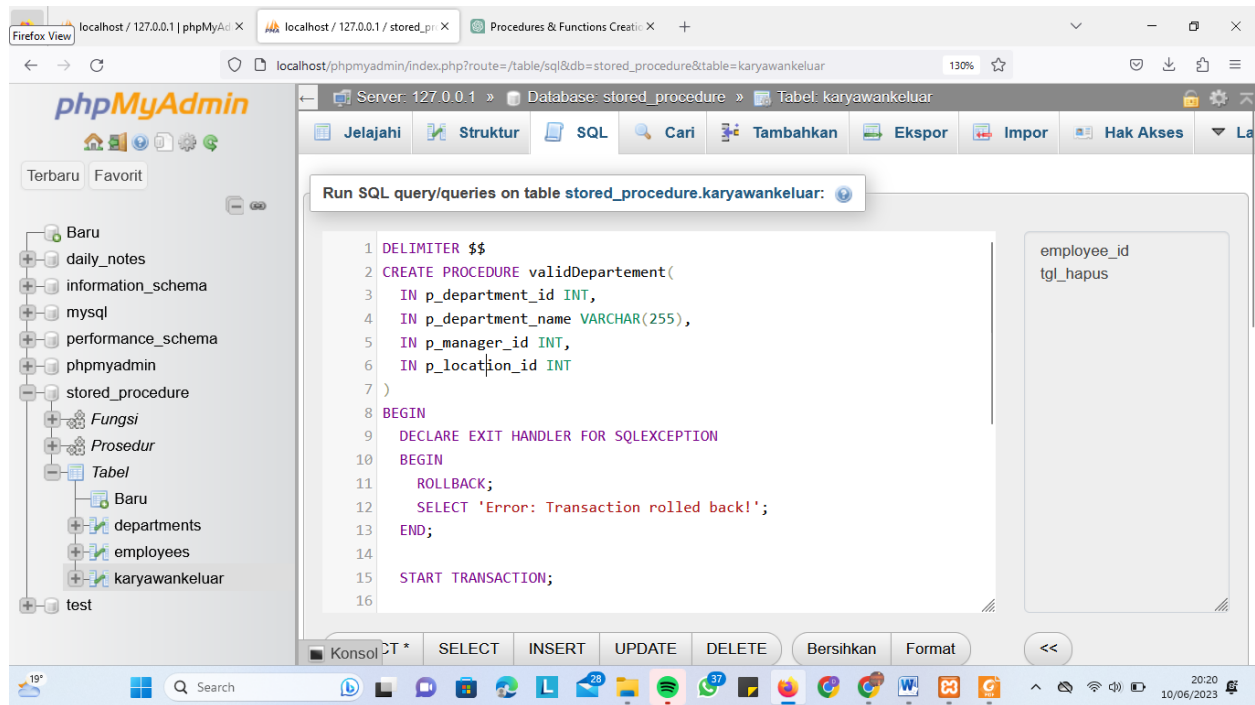
Query results operations

Print Copy to clipboard Export Display chart Create view

5. Buatlah procedure “validDepartement” yang terdapat fungsi transaction untuk commit dan rollback dari pengisian data untuk tabel “departement” !

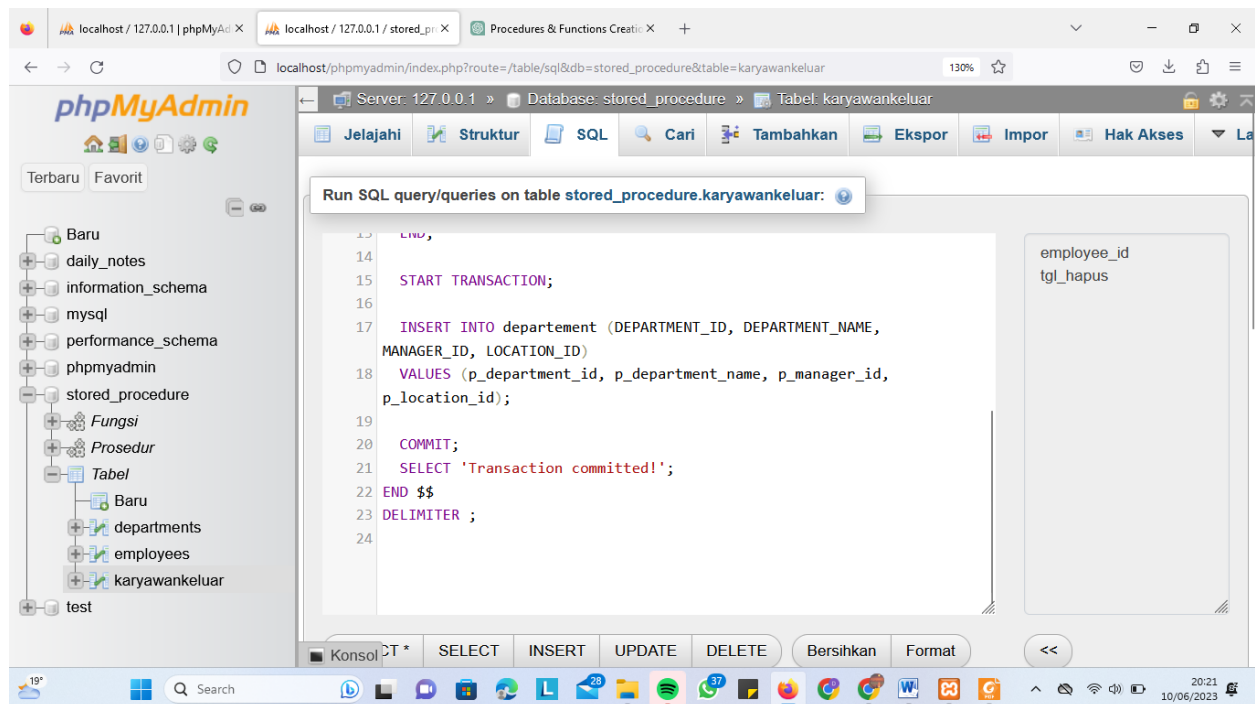
Jawab:

QUERY :



The screenshot shows the phpMyAdmin interface with the 'stored_procedure.karyawankeluar' table selected. The SQL editor contains the following code:

```
1 DELIMITER $$
2 CREATE PROCEDURE validDepartement(
3     IN p_department_id INT,
4     IN p_department_name VARCHAR(255),
5     IN p_manager_id INT,
6     IN p_location_id INT
7 )
8 BEGIN
9     DECLARE EXIT HANDLER FOR SQLEXCEPTION
10 BEGIN
11     ROLLBACK;
12     SELECT 'Error: Transaction rolled back!';
13 END;
14
15 START TRANSACTION;
```



The screenshot shows the phpMyAdmin interface with the 'stored_procedure.karyawankeluar' table selected. The SQL editor contains the following code:

```
13 END;
14
15 START TRANSACTION;
16
17 INSERT INTO departement (DEPARTMENT_ID, DEPARTMENT_NAME,
18     MANAGER_ID, LOCATION_ID)
19 VALUES (p_department_id, p_department_name, p_manager_id,
20     p_location_id);
21
22 COMMIT;
23 SELECT 'Transaction committed!';
24 END $$
25 DELIMITER ;
```

HASIL :

The screenshot shows the phpMyAdmin web interface. The left sidebar displays a database structure with a tree view. The main panel shows the 'Tabel: karyawankeluar' table. A green message box indicates a successful query execution: 'MySQL memberikan hasil kosong (atau nol baris). (Pencarian dilakukan dalam 0,0157 detik)'. Below the message, the SQL code for the stored procedure 'validDepartement' is displayed. The code defines the procedure with parameters for department ID, name, manager ID, and location ID, and includes logic for inserting data into the 'departement' table. The interface also shows a 'Konsol' tab at the bottom.

Server: 127.0.0.1 » Database: stored_procedure » Tabel: karyawankeluar

Tampilkan kotak kueri

✓ MySQL memberikan hasil kosong (atau nol baris). (Pencarian dilakukan dalam 0,0157 detik)

```
CREATE PROCEDURE validDepartement( IN p_department_id INT, IN p_department_name VARCHAR(255), IN p_manager_id INT, IN p_location_id INT ) BEGIN DECLARE EXIT HANDLER FOR SQLEXCEPTION BEGIN ROLLBACK; SELECT 'Error: Transaction rolled back!'; END; START TRANSACTION; INSERT INTO departement (DEPARTMENT_ID, DEPARTMENT_NAME, MANAGER_ID, LOCATION_ID) VALUES (p_department_id, p_department_name, p_manager_id, p_location_id); COMMIT; SELECT 'Transaction committed!'; END;
```

[Edit dikotak] [Ubah] [Buat kode PHP]

Konsol

The screenshot shows a SQL query editor with a single query: 'CALL validDepartement(60, 'IT', 103, 1400);'. Below the query, there are buttons for 'Clear', 'Format', and 'Get auto-saved query'. A checkbox labeled 'Bind parameters' is also visible.

```
1 CALL validDepartement(60, 'IT', 103, 1400);
```

Clear Format Get auto-saved query

☐ Bind parameters

StructureSQLSearchQueryExportImportOperationsPrivilegesRoutinesEventsTriggersM

Show query box

⚠ Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available. ⓘ

✔ Showing rows 0 - 0 (1 total, Query took 0.0336 seconds.)

CALL validDepartement(60, 'IT', 103, 1400);

[Edit inline] [Edit] [Create PHP code]

☐ Show all | Number of rows: 25 | Filter rows: Search this table

Extra options

Message

Data departemen berhasil disimpan.

☐ Show all | Number of rows: 25 | Filter rows: Search this table

Query results operations