

TUGAS 3

DATABASE PERPUSTAKAAN

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Kelas : Pengkodean dan Pemograman E

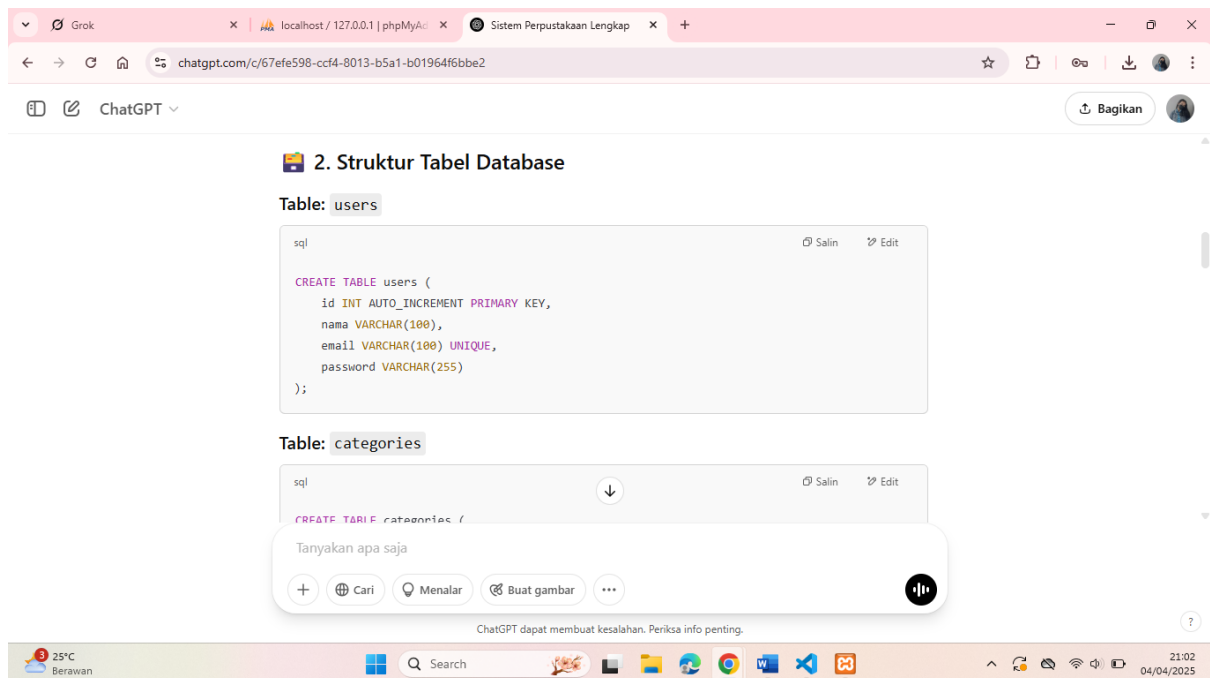
Entitas:

- Users: menyimpan data pengguna (admin/peminjam)
- Categories: kategori buku
- Books: data buku
- Loans: data peminjaman buku
- Returns: data pengembalian

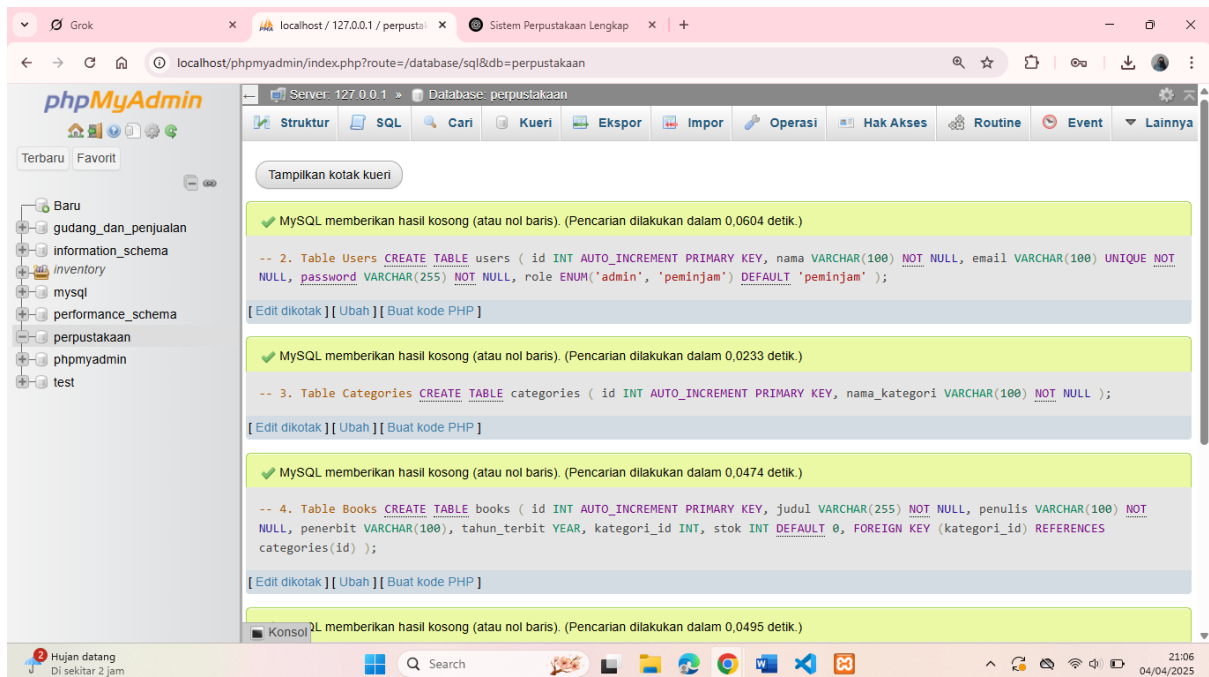
Relasi:

- Users ↔ Loans: satu user bisa meminjam banyak buku
- Books ↔ Loans: satu buku bisa dipinjam berkali-kali
- Books ↔ Categories: satu kategori bisa punya banyak buku
- Loans ↔ Returns: satu peminjaman punya satu pengembalian

1. CHATGPT



2. XAMPP DATABASE

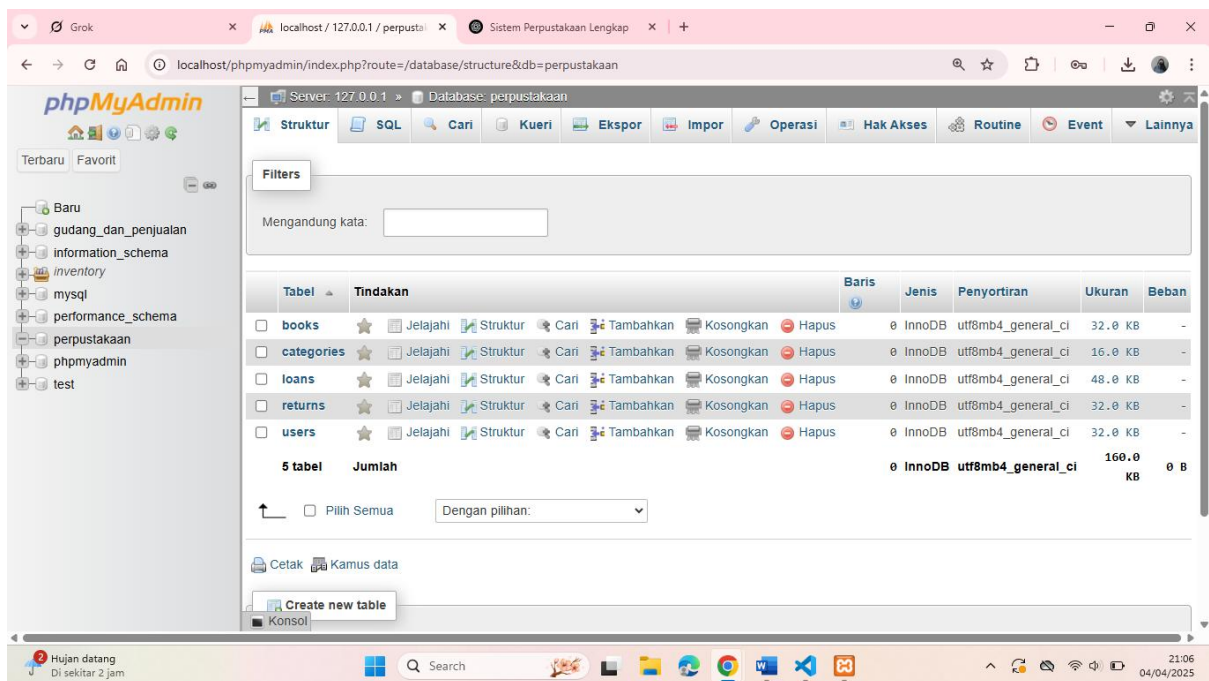


The screenshot shows the phpMyAdmin interface with the SQL tab selected. The database is named 'perpustakaan'. The SQL editor displays three queries for creating tables: 'users', 'categories', and 'books'. Each query is preceded by a green success message: 'MySQL memberikan hasil kosong (atau nol baris). (Pencarian dilakukan dalam 0,0604 detik.)'.

```
-- 2. Table Users CREATE TABLE users ( id INT AUTO_INCREMENT PRIMARY KEY, nama VARCHAR(100) NOT NULL, email VARCHAR(100) UNIQUE NOT NULL, password VARCHAR(255) NOT NULL, role ENUM('admin', 'peminjam') DEFAULT 'peminjam' );
```

```
-- 3. Table Categories CREATE TABLE categories ( id INT AUTO_INCREMENT PRIMARY KEY, nama_kategori VARCHAR(100) NOT NULL );
```

```
-- 4. Table Books CREATE TABLE books ( id INT AUTO_INCREMENT PRIMARY KEY, judul VARCHAR(255) NOT NULL, penulis VARCHAR(100) NOT NULL, penerbit VARCHAR(100), tahun_terbit YEAR, kategori_id INT, stok INT DEFAULT 0, FOREIGN KEY (kategori_id) REFERENCES categories(id) );
```



The screenshot shows the phpMyAdmin interface with the Struktur tab selected. The database is named 'perpustakaan'. The table list shows five tables: 'books', 'categories', 'loans', 'returns', and 'users'. The table 'books' is selected, and its structure is displayed. The table has the following columns: 'id' (INT, AUTO_INCREMENT, PRIMARY KEY), 'judul' (VARCHAR(255), NOT NULL), 'penulis' (VARCHAR(100), NOT NULL), 'penerbit' (VARCHAR(100)), 'tahun_terbit' (YEAR), 'kategori_id' (INT, FOREIGN KEY to 'categories'), and 'stok' (INT, DEFAULT 0).

Tabel	Tindakan	Baris	Jenis	Penyortiran	Ukuran	Beban
<input type="checkbox"/> books	Jelajahi Struktur Cari Tambahkan Kosongkan Hapus	0	InnoDB	utf8mb4_general_ci	32.0 KB	-
<input type="checkbox"/> categories	Jelajahi Struktur Cari Tambahkan Kosongkan Hapus	0	InnoDB	utf8mb4_general_ci	16.0 KB	-
<input type="checkbox"/> loans	Jelajahi Struktur Cari Tambahkan Kosongkan Hapus	0	InnoDB	utf8mb4_general_ci	48.0 KB	-
<input type="checkbox"/> returns	Jelajahi Struktur Cari Tambahkan Kosongkan Hapus	0	InnoDB	utf8mb4_general_ci	32.0 KB	-
<input type="checkbox"/> users	Jelajahi Struktur Cari Tambahkan Kosongkan Hapus	0	InnoDB	utf8mb4_general_ci	32.0 KB	-
5 tabel	Jumlah	0	InnoDB	utf8mb4_general_ci	160.0 KB	0 B

• Pengguna

The screenshot shows the phpMyAdmin interface for the 'perpustakaan' database. The 'users' table is selected, displaying 2 rows. The table structure is as follows:

id	nama	email	password	role
1	Admin Perpus	admin@perpus.com	admin123	admin
2	Siswa A	siswaa@example.com	siswa123	peminjam

• Buku Perpustakaan

The screenshot shows the phpMyAdmin interface for the 'perpustakaan' database. The 'books' table is selected, displaying 2 rows. The table structure is as follows:

id	judul	penulis	penerbit	tahun_terbit	kategori_id	stok
1	Belajar PHP	John Doe	Erlangga	2021	3	5
2	Novel Cinta	Jane Smith	Gramedia	2019	1	3

- **Kategori Buku Perpustakaan**

The screenshot shows the phpMyAdmin web interface in a browser window. The address bar shows the URL: localhost/phpmyadmin/index.php?route=/sql&db=perpustakaan&table=categories&pos=0. The interface displays the 'categories' table structure and data. The table has two columns: 'id' and 'nama_kategori'. The data is as follows:

id	nama_kategori
1	Fiksi
2	Non-Fiksi
3	Teknologi

The interface also shows a search bar, a 'Tampilkan semua' (Show all) button, and a 'Jumlah baris' (Number of rows) dropdown set to 25. The 'Saring baris' (Filter rows) dropdown is set to 'Cari di tabel ini' (Search in this table). The 'Sort by key' dropdown is set to 'Tidak ada' (None). The 'Operasi hasil kueri' (Query result operations) section includes buttons for 'Konsol', 'Salin ke clipboard', 'Ekspor', 'Tampilkan bagan', and 'Buat tampilan'.