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Kelas : Pengkodean dan Pemrograman/Kelas F

Pertemuan Minggu Ketiga

28 Februari 2025

Entitiy Relationship Diagram Sistem Perpustakaan

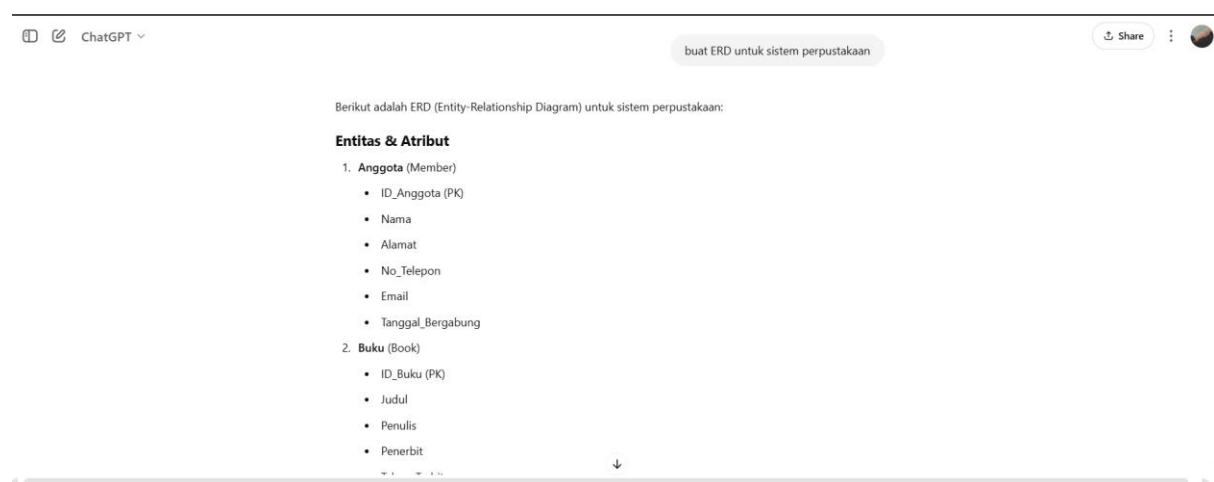
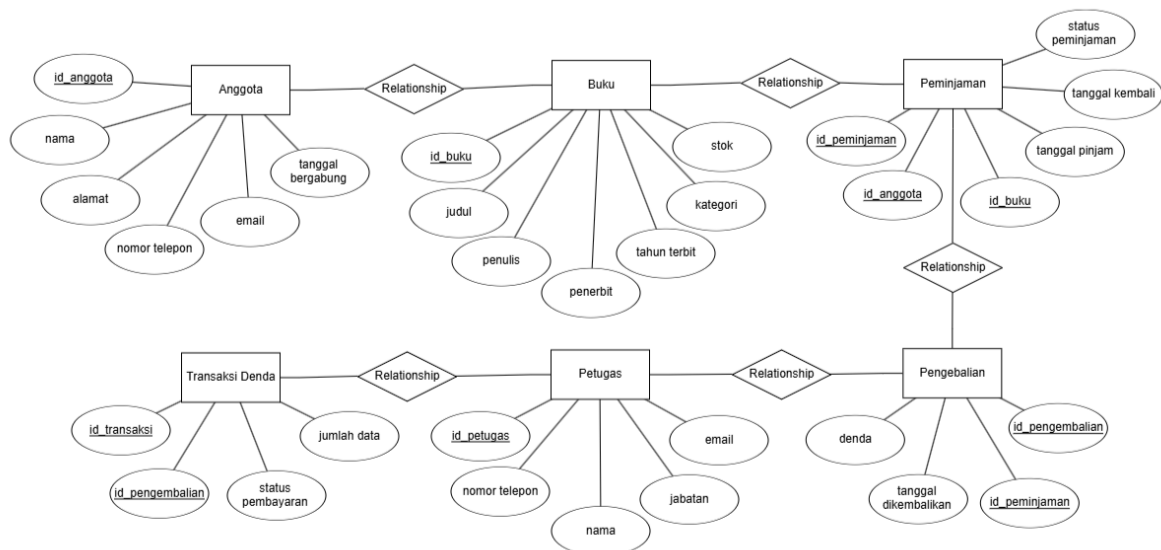


Diagram ERD:



buat database perpustakaan dari ERD diatas dilengkapi dengan struktur tabelnya

Berikut adalah skrip SQL untuk membuat database perpustakaan berdasarkan ERD yang telah saya jelaskan sebelumnya. Skrip ini mencakup pembuatan tabel dengan primary key (PK), foreign key (FK), dan relasi antar tabel.

1. Membuat Database

```
sql
CREATE DATABASE Perpustakaan;
USE Perpustakaan;
```

2. Membuat Tabel

Ask anything

2. Membuat Tabel

Tabel Anggota

```
sql
CREATE TABLE Anggota (
  ID_Anggota INT AUTO_INCREMENT PRIMARY KEY,
  Nama VARCHAR(100) NOT NULL,
  Alamat TEXT,
  No_Telepon VARCHAR(15),
  Email VARCHAR(100) UNIQUE,
  Tanggal_Bergabung DATE NOT NULL
);
```

Tabel Buku

```
sql
CREATE TABLE Buku (
  ID_Buku INT AUTO_INCREMENT PRIMARY KEY,
  Judul VARCHAR(255) NOT NULL,
  Penulis VARCHAR(100) NOT NULL,
  Penerbit VARCHAR(100),
  Tahun_Terbit YEAR,
  Kata kunci VARCHAR(50);
```

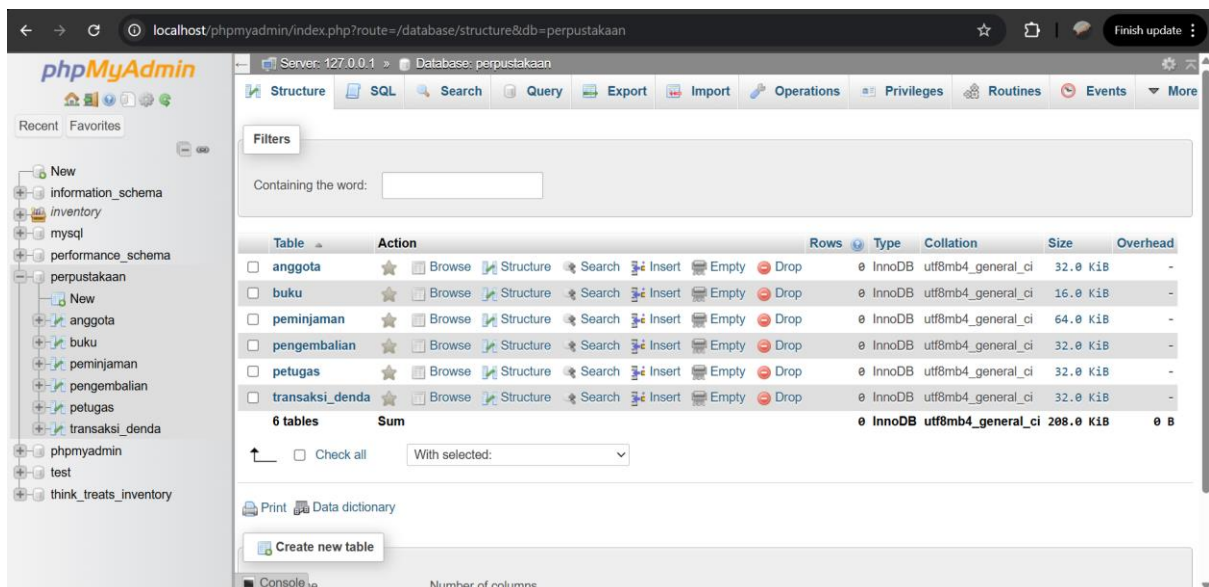
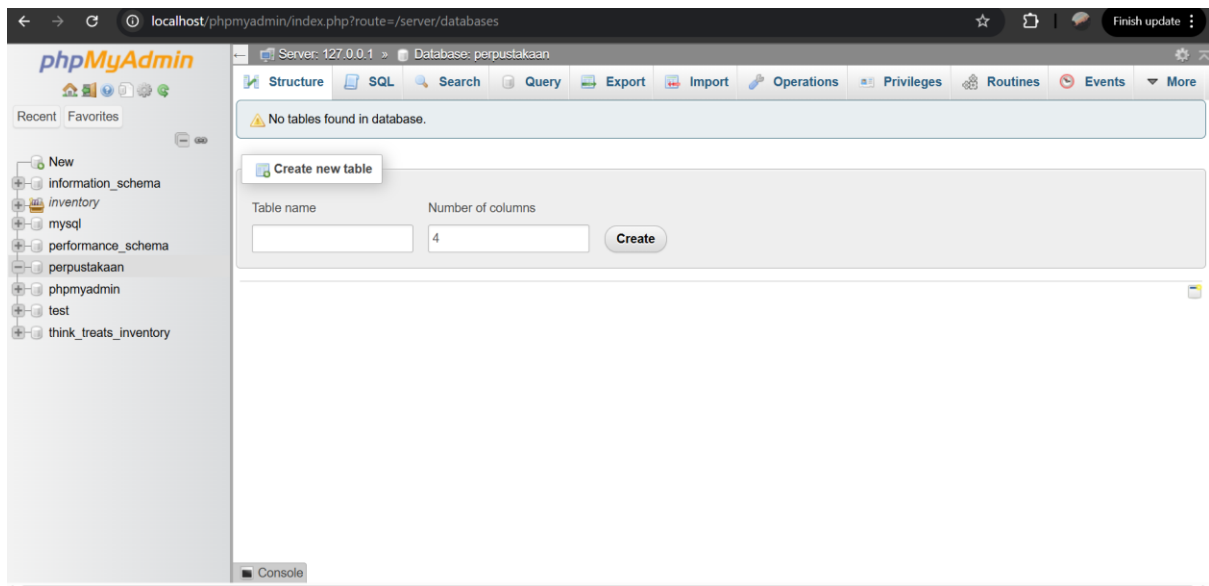
yang saya minta bukan struktur database tetapi struktur tabel

Berikut adalah **struktur tabel** dari database perpustakaan yang mencakup nama tabel, nama kolom, tipe data, dan keterangan:

1. Tabel Anggota

| Nama Kolom | Tipe Data | Keterangan |
|-------------------|-------------------|-----------------------------|
| ID_Anggota | INT (Primary Key) | Auto Increment, Primary Key |
| Nama | VARCHAR(100) | Tidak boleh NULL |
| Alamat | TEXT | Bisa NULL |
| No_Telepon | VARCHAR(15) | Bisa NULL |
| Email | VARCHAR(100) | Unique |
| Tanggal_Bergabung | DATE | Tidak boleh NULL |

Hasil implementasi database SQL pada phpMyAdmin melalui XAMPP:



1. Anggota

| Table structure | | Relation view | | | | | | | | | |
|--------------------------|---------------------|---------------|--------------------|------------|------|---------|----------|----------------|--------|--|--|
| # | Name | Type | Collation | Attributes | Null | Default | Comments | Extra | Action | | |
| <input type="checkbox"/> | 1 ID_Anggota | int(11) | | | No | None | | AUTO_INCREMENT | | | |
| <input type="checkbox"/> | 2 Nama | varchar(100) | utf8mb4_general_ci | | No | None | | | | | |
| <input type="checkbox"/> | 3 Alamat | text | utf8mb4_general_ci | | Yes | NULL | | | | | |
| <input type="checkbox"/> | 4 No_Telepon | varchar(15) | utf8mb4_general_ci | | Yes | NULL | | | | | |
| <input type="checkbox"/> | 5 Email | varchar(100) | utf8mb4_general_ci | | Yes | NULL | | | | | |
| <input type="checkbox"/> | 6 Tanggal_Bergabung | date | | | No | None | | | | | |

☐ Check all With selected: Browse Change Drop Primary Unique Index Spatial Fulltext
 Add to central columns Remove from central columns

2. Buku

Table structure

Relation view

| # | Name | Type | Collation | Attributes | Null | Default | Comments | Extra | Action |
|--------------------------|----------------|--------------|--------------------|------------|------|---------|----------|----------------|--------------------|
| <input type="checkbox"/> | 1 ID_Buku | int(11) | | | No | None | | AUTO_INCREMENT | Change Drop More |
| <input type="checkbox"/> | 2 Judul | varchar(255) | utf8mb4_general_ci | | No | None | | | Change Drop More |
| <input type="checkbox"/> | 3 Penulis | varchar(100) | utf8mb4_general_ci | | No | None | | | Change Drop More |
| <input type="checkbox"/> | 4 Penerbit | varchar(100) | utf8mb4_general_ci | | Yes | NULL | | | Change Drop More |
| <input type="checkbox"/> | 5 Tahun_Terbit | year(4) | | | Yes | NULL | | | Change Drop More |
| <input type="checkbox"/> | 6 Kategori | varchar(50) | utf8mb4_general_ci | | Yes | NULL | | | Change Drop More |
| <input type="checkbox"/> | 7 Stok | int(11) | | | No | None | | | Change Drop More |

Check all

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Browse

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Spatial

Fulltext

Add to central columns

Remove from central columns

3. Peminjaman

Table structure

Relation view

| # | Name | Type | Collation | Attributes | Null | Default | Comments | Extra | Action |
|--|-------------------|----------------------------------|--------------------|------------|------|----------|----------|----------------|--------------------|
| <input type="checkbox"/> | 1 ID_Peminjaman | int(11) | | | No | None | | AUTO_INCREMENT | Change Drop More |
| <input type="checkbox"/> | 2 ID_Anggota | int(11) | | | Yes | NULL | | | Change Drop More |
| <input type="checkbox"/> | 3 ID_Buku | int(11) | | | Yes | NULL | | | Change Drop More |
| <input type="checkbox"/> | 4 ID_Petugas | int(11) | | | Yes | NULL | | | Change Drop More |
| <input type="checkbox"/> | 5 Tanggal_Pinjam | date | | | No | None | | | Change Drop More |
| <input type="checkbox"/> | 6 Tanggal_Kembali | date | | | No | None | | | Change Drop More |
| <input type="checkbox"/> | 7 Status | enum('Dipinjam', 'Dikembalikan') | utf8mb4_general_ci | | Yes | Dipinjam | | | Change Drop More |
| <div><div><div><div>⬆</div><div><input type="checkbox"/> Check all</div></div><div>With selected:</div><div><div><div> Browse</div><div> Change</div><div> Drop</div><div> Primary</div><div> Unique</div><div> Index</div><div> Spatial</div><div> Fulltext</div></div></div></div><div><div> Add to central columns</div><div> Remove from central columns</div></div></div> | | | | | | | | | |

4. Pengembalian

Table structure

Relation view

| # | Name | Type | Collation | Attributes | Null | Default | Comments | Extra | Action |
|--------------------------|------------------------|---------------|-----------|------------|------|---------|----------|----------------|--------------------|
| <input type="checkbox"/> | 1 ID_Pengembalian | int(11) | | | No | None | | AUTO_INCREMENT | Change Drop More |
| <input type="checkbox"/> | 2 ID_Peminjaman | int(11) | | | Yes | NULL | | | Change Drop More |
| <input type="checkbox"/> | 3 Tanggal_Dikembalikan | date | | | No | None | | | Change Drop More |
| <input type="checkbox"/> | 4 Denda | decimal(10,2) | | | Yes | 0.00 | | | Change Drop More |

☐ Check all

With selected:

Browse

Change

Drop

Primary

Unique

Index

Spatial

Fulltext

Add to central columns

Remove from central columns

5. Petugas

| Table structure | | Relation view | | | | | | | |
|--------------------------|------------------------------------|-----------------------------|--------------------|------------|--------|---------|----------|----------------|--------------------------|
| # | Name | Type | Collation | Attributes | Null | Default | Comments | Extra | Action |
| <input type="checkbox"/> | 1 ID_Petugas | int(11) | | | No | None | | AUTO_INCREMENT | Change Drop More |
| <input type="checkbox"/> | 2 Nama | varchar(100) | utf8mb4_general_ci | | No | None | | | Change Drop More |
| <input type="checkbox"/> | 3 No_Telepon | varchar(15) | utf8mb4_general_ci | | Yes | NULL | | | Change Drop More |
| <input type="checkbox"/> | 4 Email | varchar(100) | utf8mb4_general_ci | | Yes | NULL | | | Change Drop More |
| <input type="checkbox"/> | 5 Jabatan | varchar(50) | utf8mb4_general_ci | | No | None | | | Change Drop More |
| | | | | | | | | | |
| | <input type="checkbox"/> Check all | With selected: | | Browse | Change | Drop | Primary | Unique | Index Spatial Fulltext |
| Add to central columns | | Remove from central columns | | | | | | | |

6. Transaksi Denda

Table structure

Relation view

| # | Name | Type | Collation | Attributes | Null | Default | Comments | Extra | Action |
|--------------------------|---------------------|------------------------------|--------------------|------------|------|-------------|----------|----------------|--------------------|
| <input type="checkbox"/> | 1 ID_Transaksi | int(11) | | | No | None | | AUTO_INCREMENT | Change Drop More |
| <input type="checkbox"/> | 2 ID_Pengembalian | int(11) | | | Yes | NULL | | | Change Drop More |
| <input type="checkbox"/> | 3 Jumlah_Denda | decimal(10,2) | | | No | None | | | Change Drop More |
| <input type="checkbox"/> | 4 Status_Pembayaran | enum('Lunas', 'Belum Lunas') | utf8mb4_general_ci | | Yes | Belum Lunas | | | Change Drop More |

☐ Check all

With selected:

Browse Change Drop Primary Unique Index Spatial Fulltext

Add to central columns Remove from central columns