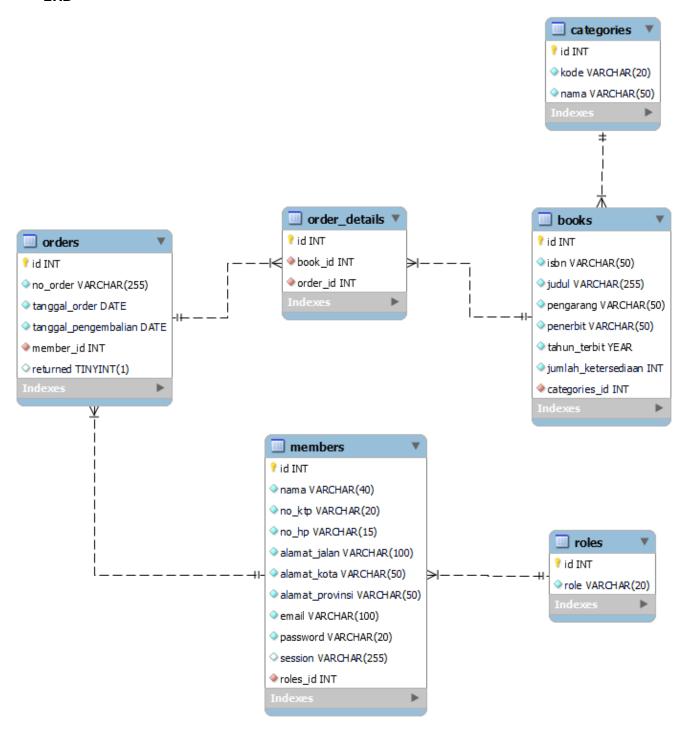
Nama: Kevin Octavianus Halim

Link GitHub: https://github.com/CyaVain/siperpus

Tools Yang Digunakan:

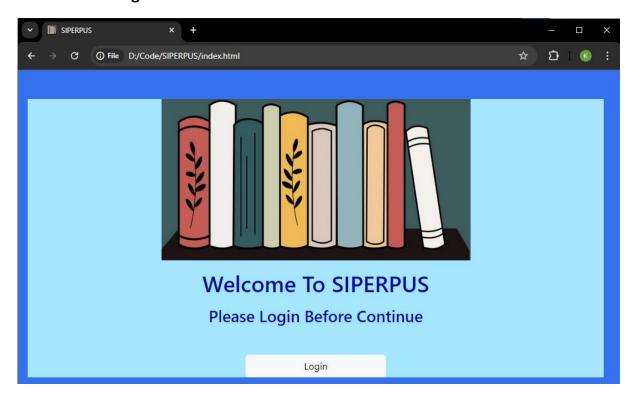
- Bootstrap (Soal No. 1)
- MySQL (Soal No. 2)
- JavaScript (Soal No. 3)

ERD



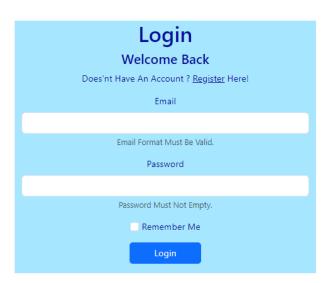
Soal No 1

Home Page



Login Page







Home

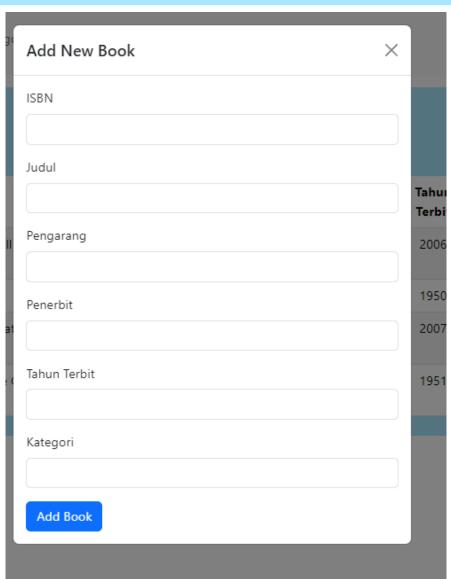
Login

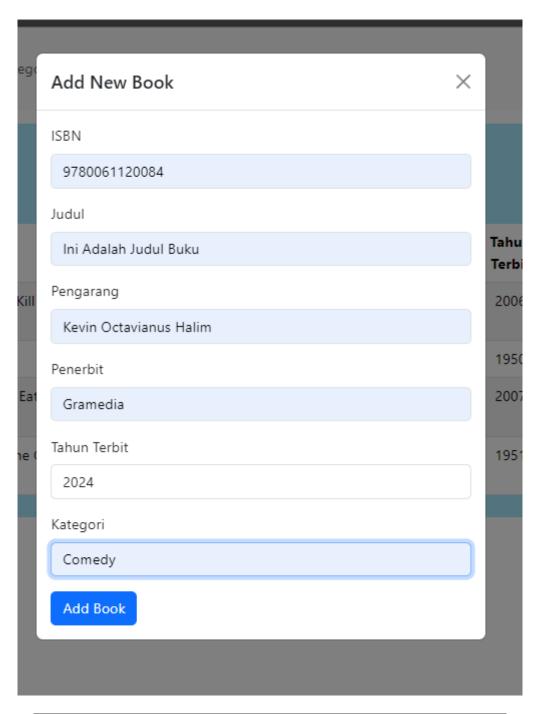
Register One Step Closer To The Greatness Already Have An Account ? Login Here! Nama Lengkap Nama Length Must be Less than 40 and Doesn't Contain Any Number. No KTP No KTP Length Must Be 16 Digits No More No Less! No Telepon No Telepon Length Must Start With '08' and Maximum 15 Digits! Nama Jalan Nama Jalan Length Maximum 50 letters. Kota Nama Kota Length Maximum 20 letters. Provinsi Nama Provinsi Length Maximum 40 letters. Email Email Format Must Be Valid. Password Password Must Contain at Least 1 Capital Letter and 1 Number. Register

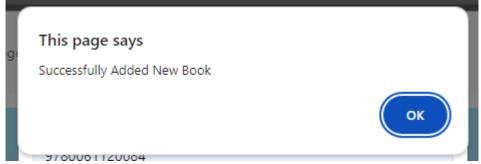
Tambah Buku



				r Buku		
No	ISBN	Judul	Pengarang	Penerbit	Tahun Terbit	Kategori
1	9780143127550	To Kill a Mockingbird	Harper Lee	Harper Perennial Modern Classics	2006	Fiction
2	9780061120084	1984	George Orwell	Signet Classic	1950	Science-Fiction
3	9781594480003	Eat, Pray, Love	Elizabeth Gilbert	Penguin Books	2007	Romance- Comedy
4	9780061122415	The Catcher in the Rye	J.D. Salinger	Little, Brown and Company	1951	Drama







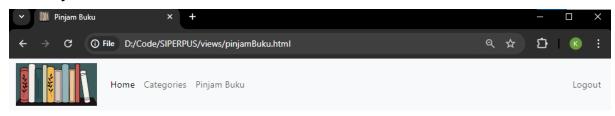


Daftar Buku

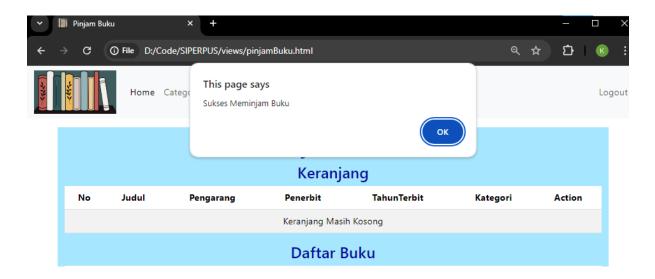
Add New Book

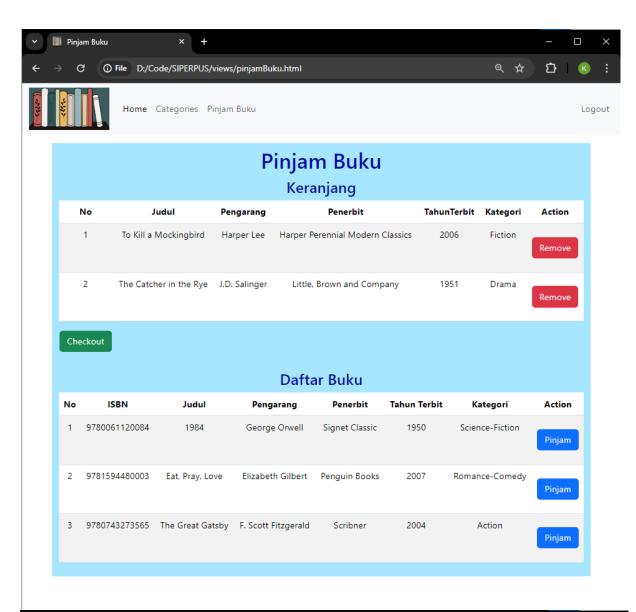
No	ISBN	Judul	Pengarang	Penerbit	Tahun Terbit	Kategori
1	9780143127550	To Kill a Mockingbird	Harper Lee	Harper Perennial Modern Classics	2006	Fiction
2	9780061120084	1984	George Orwell	Signet Classic	1950	Science-Fiction
3	9781594480003	Eat, Pray, Love	Elizabeth Gilbert	Penguin Books	2007	Romance- Comedy
4	9780061122415	The Catcher in the Rye	J.D. Salinger	Little, Brown and Company	1951	Drama
5	9780061120084	Ini Adalah Judul Buku	Kevin Octavianus Halim	Gramedia	2024	Comedy

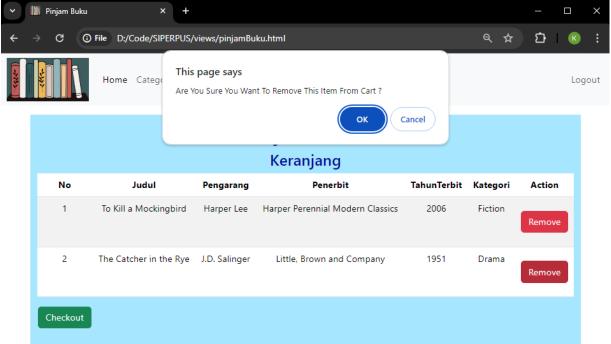
Pinjam Buku



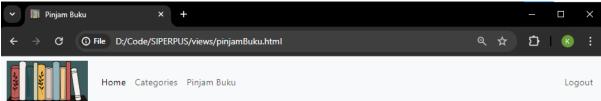
Pinjam Buku Keranjang							
No	o Judul	Pengarang	Penerbit	TahunTerbit		Kategori	Action
			Keranjang	Masih Kosong			
			Dafta	ar Buku			
No	ISBN	Judul	Pengarang	Penerbit	Tahun Terbit	Kategori	Action
1	9780143127550	To Kill a Mockingbird	Harper Lee	Harper Perennial Modern Classics	2006	Fiction	Pinjam
2	9780061120084	1984	George Orwell	Signet Classic	1950	Science-Fiction	Pinjam
3	9781594480003	Eat, Pray, Love	Elizabeth Gilbert	Penguin Books	2007	Romance- Comedy	Pinjam
4	9780061122415	The Catcher in the Rye	J.D. Salinger	Little, Brown and Company	1951	Drama	Pinjam
5	9780743273565	The Great Gatsby	F. Scott Fitzgerald	Scribner	2004	Action	Pinjam



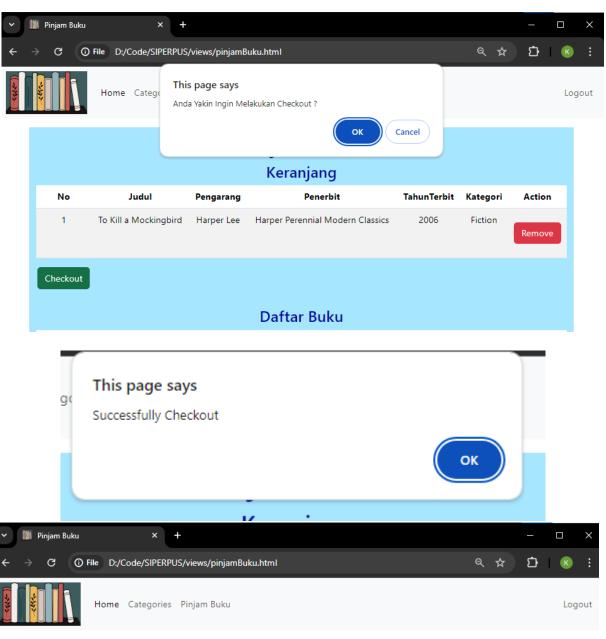






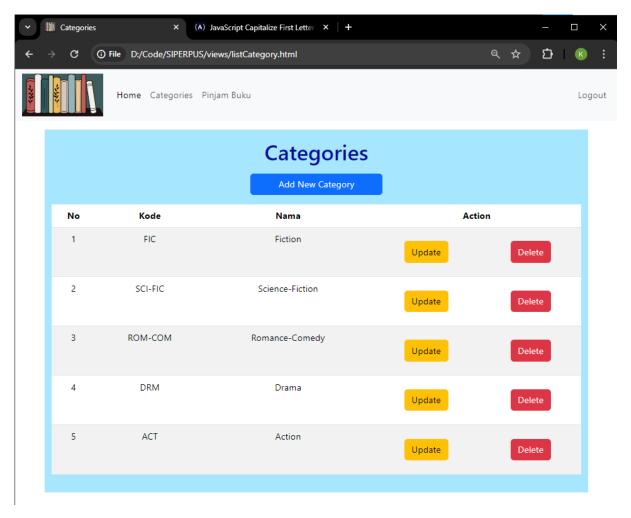




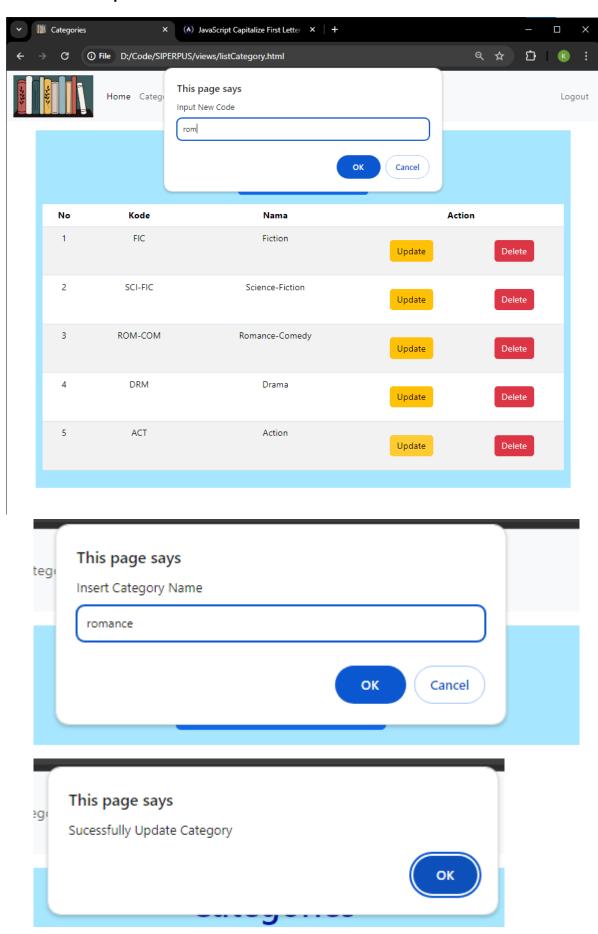


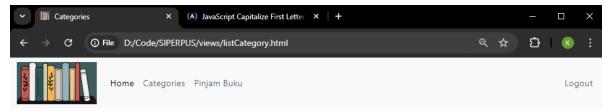


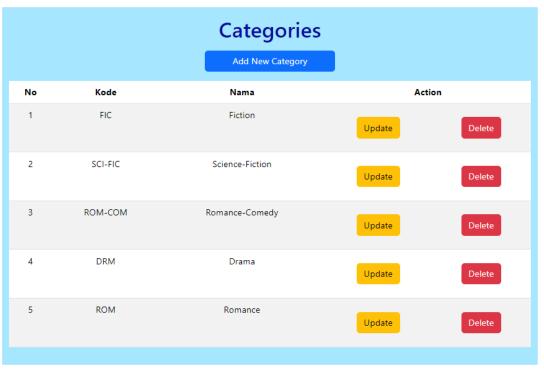
Category list



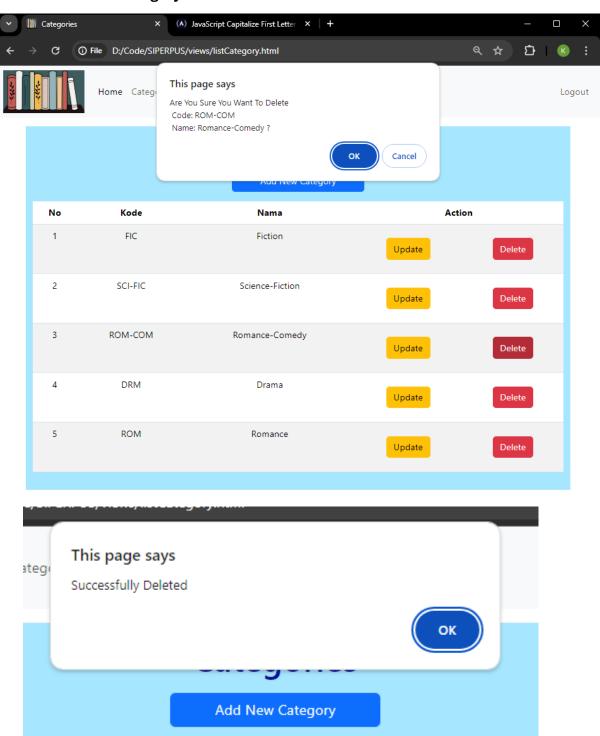
Update

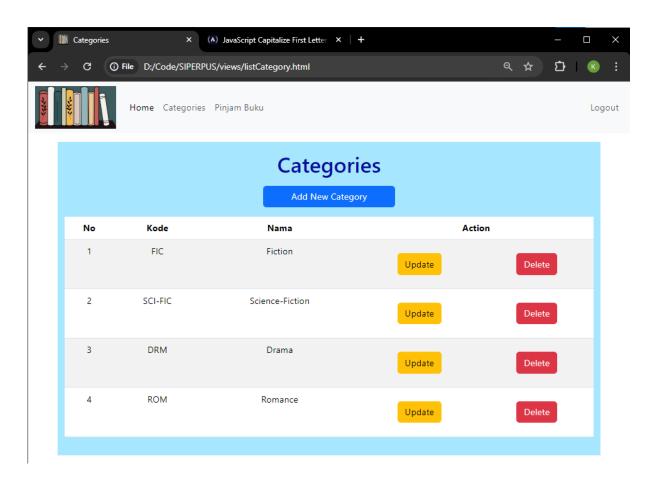




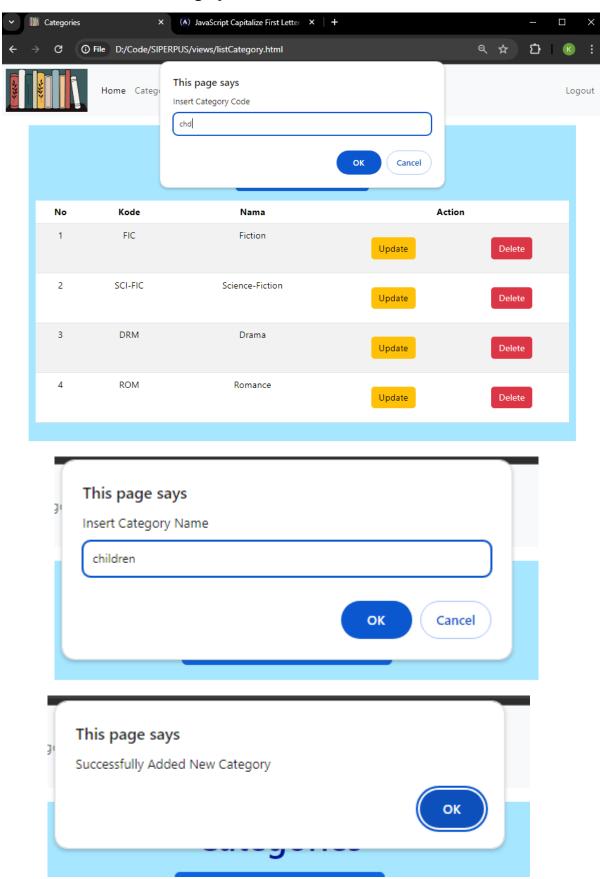


Delete Category

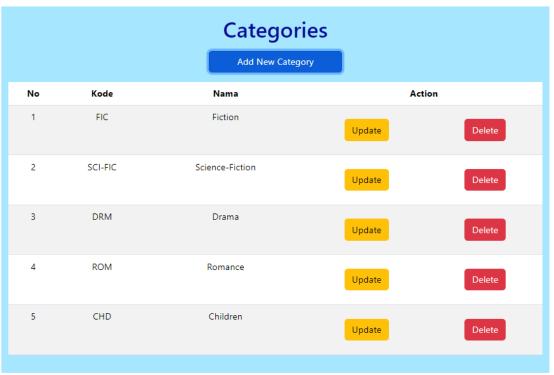




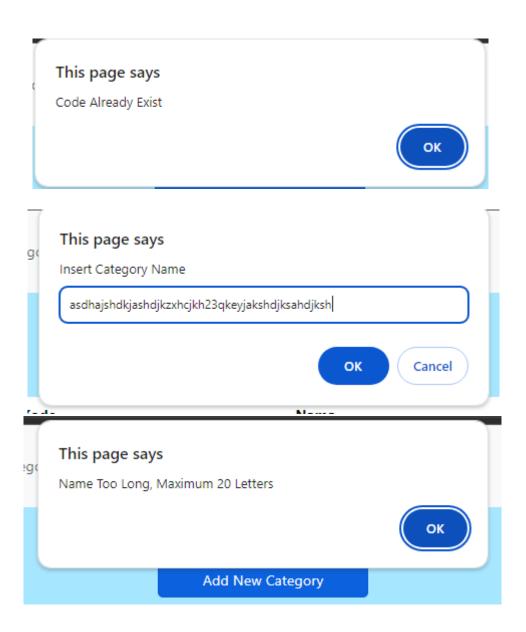
Add New Category







Validation



Soal No 2

DDL

```
DROP TABLE IF EXISTS roles, members,
                                                 CREATE TABLE books(
  categories, books, orders, order_details;
                                                 id INT PRIMARY KEY AUTO INCREMENT,
                                                 isbn VARCHAR(50) NOT NULL,

    ○ CREATE TABLE roles(
                                                 judul VARCHAR(255) NOT NULL,
  id INT PRIMARY KEY AUTO INCREMENT,
                                                 pengarang VARCHAR(50) NOT NULL,
  role varchar(20) NOT NULL
                                                 penerbit VARCHAR(50) NOT NULL,
 ٠);
                                                 tahun terbit YEAR NOT NULL,
                                                 jumlah ketersediaan INT NOT NULL,
                                                 categories_id INT NOT NULL,
CREATE TABLE members(
  id INT PRIMARY KEY AUTO INCREMENT,
                                                 FOREIGN KEY (categories_id) REFERENCES categories(id)
  nama VARCHAR(40) NOT NULL,
                                                 );
  no ktp VARCHAR(20) NOT NULL,
                                                CREATE TABLE orders(
  no hp VARCHAR(15) NOT NULL,
                                                 id INT PRIMARY KEY AUTO INCREMENT,
  alamat jalan VARCHAR(100) NOT NULL,
                                                 no_order VARCHAR(255) NOT NULL,
  alamat kota VARCHAR(50) NOT NULL,
                                                 tanggal order DATE NOT NULL,
  alamat provinsi VARCHAR(50) NOT NULL,
                                                 tanggal pengembalian DATE NOT NULL,
  email VARCHAR(100) NOT NULL,
                                                 member_id INT NOT NULL,
  password VARCHAR(20) NOT NULL,
                                                 returned boolean,
  session VARCHAR(255),
                                                 denda int,
  roles id INT NOT NULL,
                                                 FOREIGN KEY (member_id) REFERENCES members(id)
  FOREIGN KEY (roles id) REFERENCES roles(id)
                                                 );
  );
                                                 CREATE TABLE order details(

    ○ CREATE TABLE categories(
                                                 id INT PRIMARY KEY AUTO INCREMENT,
  id INT PRIMARY KEY AUTO INCREMENT,
                                                 book id INT NOT NULL,
  kode VARCHAR(20) NOT NULL,
                                                 order id INT NOT NULL,
  nama VARCHAR(50) NOT NULL
                                                 FOREIGN KEY (book_id) REFERENCES books(id),
  );
                                                 FOREIGN KEY (order id) REFERENCES orders(id)
                                                 );
```

DML

```
INSERT INTO categories(kode, nama)
              VALUES("FIC", "Fiction"),
              ("SCI-FIC", "Science-Fiction"),
              ("ROM-COM", "Romance-Comedy"),
              ("DRM", "Drama"),
              ("ACT", "Action"),
              ("CHD", "Children");
              INSERT INTO books(isbn,judul,pengarang,penerbit,tahun terbit,jumlah ketersediaan,categories id)
              VALUES('978-3-16-148410-0', 'The Great Adventure', 'John Doe', 'Adventure Books', 2021, 10, 1),
              ('978-1-40-289462-6', 'Sci-Fi World', 'Jane Smith', 'Futuristic Press', 2020, 25, 2),
              ('978-0-14-143956-3', 'Love and Laughs', 'Emily Bronte', 'Romantic Times', 2019, 7, 3),
              ('978-1-93-398817-7', 'Drama in Real Life', 'Arthur Miller', 'Drama Publishers', 2018, 4, 4),
              ('978-0-452-28423-4', 'Action Packed', 'Jack Reacher', 'Action House', 2022, 8, 5),
              ('978-0-316-76948-8', 'Kids Fun Stories', 'Dr. Seuss', 'Children World', 2017, 15, 6),
              ('978-0-7432-7356-5', 'Mystery of the Lost', 'Agatha Christie', 'Mystery Press', 2016, 6, 1),
              ('978-1-4028-9462-8', 'Future Tense', 'Isaac Asimov', 'Sci-Fi Universe', 2015, 9, 2),
              ('978-0-452-28424-1', 'Romantic Journey', 'Nicholas Sparks', 'Heart Publishers', 2023, 3, 3),
              ('978-0-06-112008-4', 'Life Drama', 'Tennessee Williams', 'Classic Drama', 2021, 3, 4);
INSERT INTO roles (role)
VALUES("MEMBER"), ("ADMIN");
INSERT INTO members(nama, no_ktp, no_hp, alamat_jalan, alamat_kota, alamat_provinsi, email, password, roles_id)
VALUES
('Ahmad Santoso', '32760101010100001', '081234567890', 'Jl. Merdeka No. 1', 'Bandung', 'Jawa Barat', 'ahmad.santoso@example.com', 'password123', 1),
('Budi Hartono', '3174010202020002', '082234567891', 'Jl. Sudirman No. 5', 'Jakarta', 'DKI Jakarta', 'budi.hartono@example.com', 'password123', 1),
('Citra Dewi', '327302030303030003', '083234567892', 'Jl. Diponegoro No. 10', 'Bekasi', 'Jawa Barat', 'citra.dewi@example.com', 'password123', 2),
('Dewi Lestari', '3374010404040004', '084234567893', 'Jl. Ahmad Yani No. 15', 'Semarang', 'Jawa Tengah', 'dewi.lestari@example.com', 'password123', 1),
('Eko Prasetyo', '31750305050500005', '085234567894', 'Jl. Gatot Subroto No. 20', 'Jakarta', 'DKI Jakarta', 'eko.prasetyo@example.com', 'password123', 2);
               INSERT INTO orders(no_order, tanggal_order, tanggal_pengembalian, member_id, returned)
               VALUES('ORD001', '2024-05-01', '2024-05-15', 1, false),
               ('ORD002', '2024-05-03', '2024-05-17', 2, false),
               ('ORD003', '2024-05-04', '2024-05-19', 3, false),
               ('ORD004', '2024-05-21', '2024-05-26', 3, false);
               INSERT INTO order_details(order_id,book_id)
               VALUES(1,1),(1,2),(1,3),
               (2,4),(2,5),(2,6),
               (3,7),(3,8),(4,9);
               UPDATE orders
               SET returned = true, denda = 0
               WHERE id in (1,2,3);
               UPDATE orders
               SET returned = true, denda = 5000
               WHERE id = 4:
```

OUTPUT

SELECT * FROM siperpus_db.categories;

id	kode	nama
1	FIC	Fiction
2	SCI-FIC	Science-Fiction
3	ROM-COM	Romance-Comedy
4	DRM	Drama
5	ACT	Action
6	CHD	Children

SELECT * FROM siperpus_db.books;

id	isbn	judul	pengarang	penerbit	tahun_terbit	jumlah_ketersediaan	categories_id
1	978-3-16-148410-0	The Great Adventure	John Doe	Adventure Books	2021	10	1
2	978-1-40-289462-6	Sci-Fi World	Jane Smith	Futuristic Press	2020	25	2
3	978-0-14-143956-3	Love and Laughs	Emily Bronte	Romantic Times	2019	7	3
4	978-1-93-398817-7	Drama in Real Life	Arthur Miller	Drama Publishers	2018	4	4
5	978-0-452-28423-4	Action Packed	Jack Reacher	Action House	2022	8	5
6	978-0-316-76948-8	Kids Fun Stories	Dr. Seuss	Children World	2017	15	6
7	978-0-7432-7356-5	Mystery of the Lost	Agatha Christie	Mystery Press	2016	6	1
8	978-1-4028-9462-8	Future Tense	Isaac Asimov	Sci-Fi Universe	2015	9	2
9	978-0-452-28424-1	Romantic Journey	Nicholas Sparks	Heart Publishers	2023	3	3
10	978-0-06-112008-4	Life Drama	Tennessee Williams	Classic Drama	2021	3	4

SELECT * FROM siperpus_db.roles;

id	role
1	MEMBER
2	ADMIN

SELECT * FROM siperpus_db.members;

id	nama	no_ktp	no_hp	alamat_jalan	alamat_kota	alamat_provinsi	email	password	session	roles_id
1	Ahmad Santoso	3276010101010001	081234567890	Jl. Merdeka No. 1	Bandung	Jawa Barat	ahmad.santoso@example.com	password123	NULL	1
2	Budi Hartono	3174010202020002	082234567891	Jl. Sudirman No. 5	Jakarta	DKI Jakarta	budi.hartono@example.com	password123	NULL	1
3	Citra Dewi	3273020303030003	083234567892	Jl. Diponegoro No. 10	Bekasi	Jawa Barat	citra.dewi@example.com	password123	NULL	2
4	Dewi Lestari	3374010404040004	084234567893	Jl. Ahmad Yani No. 15	Semarang	Jawa Tengah	dewi.lestari@example.com	password123	NULL	1
5	Eko Prasetyo	3175030505050005	085234567894	Jl. Gatot Subroto No. 20	Jakarta	DKI Jakarta	eko.prasetyo@example.com	password123	NULL	2

SELECT * FROM siperpus_db.orders;

id	no_order	tanggal_order	tanggal_pengembalian	member_id	returned	denda
1	ORD001	2024-05-01	2024-05-15	1	1	0
2	ORD002	2024-05-03	2024-05-17	2	1	0
3	ORD003	2024-05-04	2024-05-19	3	1	0
4	ORD004	2024-05-21	2024-05-26	3	1	5000

SELECT * FROM siperpus_db.order_details;

	P P	
id	book_id	order_id
1	1	1
2	2	1
3	3	1
4	4	2
5	5	2
6	6	2
7	7	3
8	8	3
9	9	4

Soal 2d.1

Tampilkan daftar buku yang tidak pernah dipinjam di oleh siapapun (Expected Buku 10)

Query:

```
SELECT b.id, b.judul

FROM order_details od

RIGHT JOIN books b ON od.book_id = b.id

WHERE od.id is NULL
```

Output:

id	judul
10	Life Drama

Soal 2d.2

Tampilkan user yang pernah mengembalikan buku terlambat beserta dendanya

Query:

```
SELECT m.id, m.nama, o.denda
FROM orders o
JOIN members m ON o.member_id = m.id
WHERE o.denda != 0
```

Output:

id	nama	denda
3	Citra Dewi	5000

Soal 2d.3

Tampilkan user dengan daftar buku yang dipinjam nya.

Query:

```
SELECT DENSE_RANK() OVER(ORDER BY m.id ASC) AS "No",
m.nama as "Member",
GROUP_CONCAT(b.judul
ORDER BY b.id ASC
SEPARATOR ', '
) as "Judul Buku"

FROM members m

JOIN orders o ON o.member_id = m.id

JOIN order_details od ON od.order_id = o.id

JOIN books b ON od.book_id = b.id

GROUP BY m.id, m.nama
```

Output:

No	Member	Judul Buku
1	Ahmad Santoso	The Great Adventure, Sci-Fi World, Love and Laughs
2	Budi Hartono	Drama in Real Life, Action Packed, Kids Fun Stories
3	Citra Dewi	Mystery of the Lost, Future Tense, Romantic Journey

Soal No 3

Output

```
> listBuku
                                                    > batasMaxPinjam

⟨ ▼ (5) [{...}, {...}, {...}, {...}, {...}] 

■
                                                    4 14
    ▼ 0:
                                                    > dendaHarian
       id: 1
       isbn: "9780141182551"
                                                    < 1000
        judul: "The Stranger"
                                                    > dendaMax
       penerbit: "Penguin Books"
                                                    30000
       pengarang: "Albert Camus"
       tahunTerbit: 1942
                                                    > bukuYangDiPinjam
      ▶ [[Prototype]]: Object

⟨ ▶ (3) [4, 1, 3]

    ▼ 1:
                                                     > tanggalPinjam
       id: 2
       isbn: "9780061120084"

    Tue Oct 01 2024 07:00:00 GMT+0700 (Western Indonesia Time)

       judul: "One Hundred Years of Solitude"
       penerbit: "Harper Perennial Modern Classics" > tanggalKembali
       pengarang: "Gabriel Garcia Marquez"
                                                    tahunTerbit: 1967
      ▶ [[Prototype]]: Object
    ₹ 2:
       id: 3
       isbn: "9780679720201"
       judul: "Norwegian Wood"
       penerbit: "Vintage International"
       pengarang: "Haruki Murakami"
       tahunTerbit: 1987
      ▶ [[Prototype]]: Object
    ▼ 3:
       id: 4
        isbn: "9780140182078"
       judul: "The Metamorphosis"
       penerbit: "Penguin Books"
       pengarang: "Franz Kafka"
       tahunTerbit: 1915
      ▶ [[Prototype]]: Object
    ▼ 4:
       isbn: "9780679755333"
       judul: "Beloved"
       penerbit: "Vintage"
       pengarang: "Toni Morrison"
       tahunTerbit: 1987
      ▶ [[Prototype]]: Object
      length: 5
    ▶ [[Prototype]]: Array(0)
                         > hitungDenda(tanggalPinjam,tanggalKembali,bukuYangDiPinjam)

⟨ ▼ {totalDenda: 45000, dendaPerBuku: Array(3)} [
]
                             ▼ dendaPerBuku: Array(3)
                               ▶ 0: {id: 4, judul: 'The Metamorphosis', denda: 15000}
                               ▶ 1: {id: 1, judul: 'The Stranger', denda: 15000}
                               ▶ 2: {id: 3, judul: 'Norwegian Wood', denda: 15000}
                                 length: 3
                               ▶ [[Prototype]]: Array(0)
                               totalDenda: 45000
                             ▶ [[Prototype]]: Object
```

Validasi

Jumlah Buku Yang diPinjam Lebih Banyak Dari Stok Buku

bukuYangDiPinjam

▶ (6) [4, 1, 3, 2, 5, 6]

hitungDenda(tanggalPinjam,tanggalKembali,bukuYangDiPinjam)

Jumlah Buku Yang Dipinjam Lebih Banyak Dari Ketersediaan Buku

Buku Yang diPinjam Terdapat Duplikat

bukuYangDiPinjam

▶ (4) [4, 1, 3, 4]

hitungDenda(tanggalPinjam,tanggalKembali,bukuYangDiPinjam)

BUKU YANG SAMA TIDAK BISA DIPINJAM BERSAMAAN

Buku Yang diPinjam Tidak Ada Pada Stok Buku

bukuYangDiPinjam

▶ (3) [6, 1, 3]

hitungDenda(tanggalPinjam,tanggalKembali,bukuYangDiPinjam)

BUKU TIDAK VALID / TIDAK ADA

Tanggal Kembali Belum Bisa Dikenakan Denda

tanggalPinjam

Tue Oct 01 2024 07:00:00 GMT+0700 (Western Indonesia Time)

tanggalKembali

Sun Oct 13 2024 07:00:00 GMT+0700 (Western Indonesia Time)

bukuYangDiPinjam

▶ (3) [1, 2, 4]

hitungDenda(tanggalPinjam,tanggalKembali,bukuYangDiPinjam)

Pinjaman Tidak Dikenakan Kenda Apapun Dikarenakan Pengembalian Masih Dibawah Dari Maximal Pengembalian

Durasi Pinjaman : 12 Hari

Tanggal Kembali Kurang Dari Tanggal Pinjam

tanggalPinjam

Tue Oct 15 2024 07:00:00 GMT+0700 (Western Indonesia Time)

tanggalKembali

Mon Oct 14 2024 07:00:00 GMT+0700 (Western Indonesia Time)

bukuYangDiPinjam

▶ (3) [1, 2, 4]

hitungDenda(tanggalPinjam,tanggalKembali,bukuYangDiPinjam)

Tanggal Pengembalian Tidak Boleh Kurang Dari Tanggal Pinjam