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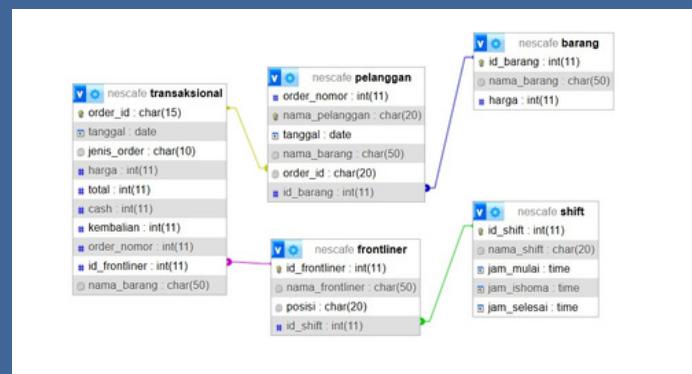


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Permasalahan = Pencatatan transaksi penjualan secara manual berisiko menimbulkan kesalahan dan data yang tidak terorganisir, sehingga menyulitkan pencarian serta rekap data transaksi, pelanggan, dan produk.

Tujuan = Tujuan: Mengembangkan database penjualan yang rapi dan mudah dikelola dengan MySQL melalui perancangan ERD, normalisasi data, dan penggunaan query SQL.

### ERD (Entity Relationship Diagram)



### implementasi DDL (struktur)

```

• CREATE TABLE shift (
    id_shift int,
    nama_shift char(20),
    jam_mulai time,
    jam_ishoma time,
    jam_selesai time,
    primary key (id_shift)
);

• describe shift;
  
```

### DML (pengisian & pengolahan data)

```

insert into shift values
(0815, 'pagi', '8:00', '12:00-13:00', '15:00'),
(1522, 'siang', '15:00', '15:00-22:00', '22:00');

select *from shift;
  
```

### TCL (pengelolaan database)

```

218 • START TRANSACTION;
219 • INSERT INTO transaksional
220   (order_id, tanggal, jenis_order, harga, total, cash, kembalian, order_nomor, id_frontline
221   VALUES
222   ('NE/20251016/106', '2026-10-19', 'take away', 8000, 8000, 10000, 2000, 0106, 104623);
223 • COMMIT;
224
225
  
```

### group by (pengelompokan data)

```

8 • select id_frontliner,nama_frontliner,count(*) as total
9   from frontliner
10  where id_shift=0815
11  group by id_frontliner
12  order by total;
13
  
```

### having (agregasi & pengelompokan data)

```

4 • select nama_frontliner,posisi,count(id_frontliner) as jumlah_frontliner
5   from frontliner
6   where id_frontliner = '104620'
7   group by nama_frontliner
8   having count(id_frontliner)
9   order by nama_frontliner;
10
  
```

### output having

```

184 • select nama_frontliner,posisi,count(id_frontliner) as jumlah_frontliner
185   from frontliner
186   where id_frontliner = '104620'
187   group by nama_frontliner
188   having count(id_frontliner)
189   order by nama_frontliner;
190
  
```

nama_frontliner	posisi	jumlah_frontliner
yessi sabitha	kasir	1

### output group by

```

178 • select id_frontliner,nama_frontliner,count(*) as total
179   from frontliner
180   where id_shift=0815
181   group by id_frontliner
182   order by total;
183
  
```

id_frontliner	nama_frontliner	total
104622	dimas wibi anggoro	1
104621	ahmed fajar khoirul	1
104620	yessi sabitha	1

### join

```

• select frontliner.nama_frontliner, transaksional.order_id
  from frontliner
  left join transaksional
  on frontliner.id_frontliner = transaksional.id_frontliner;
  
```

### output join

```

196 • select frontliner.nama_frontliner, transaksional.order_id
197   from frontliner
198   left join transaksional
199   on frontliner.id_frontliner = transaksional.id_frontliner;
200
  
```

nama_frontliner	order_id
yessi sabitha	NE/20251016/104
ahmed fajar khoirul	NE/20251016/105
dimas wibi anggoro	HULL
raden fajar risky	HULL
farhanazra rahma	HULL