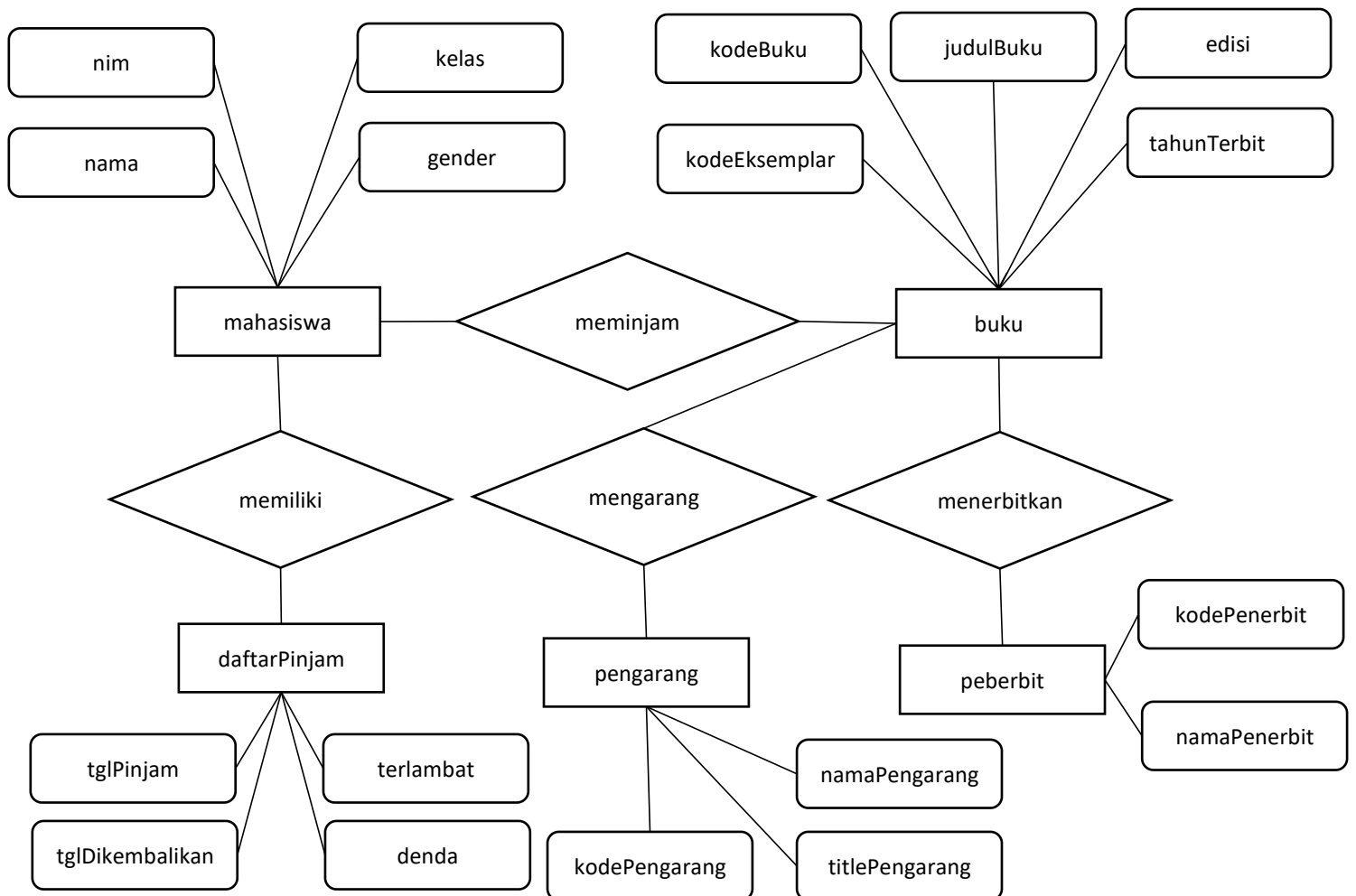


UJIAN TENGAH SEMESTER PRAKTIKUM SISTEM BASIS DATA

Nama : Hadid Aldio Indratama
NIM : L200160055
Kelas : A

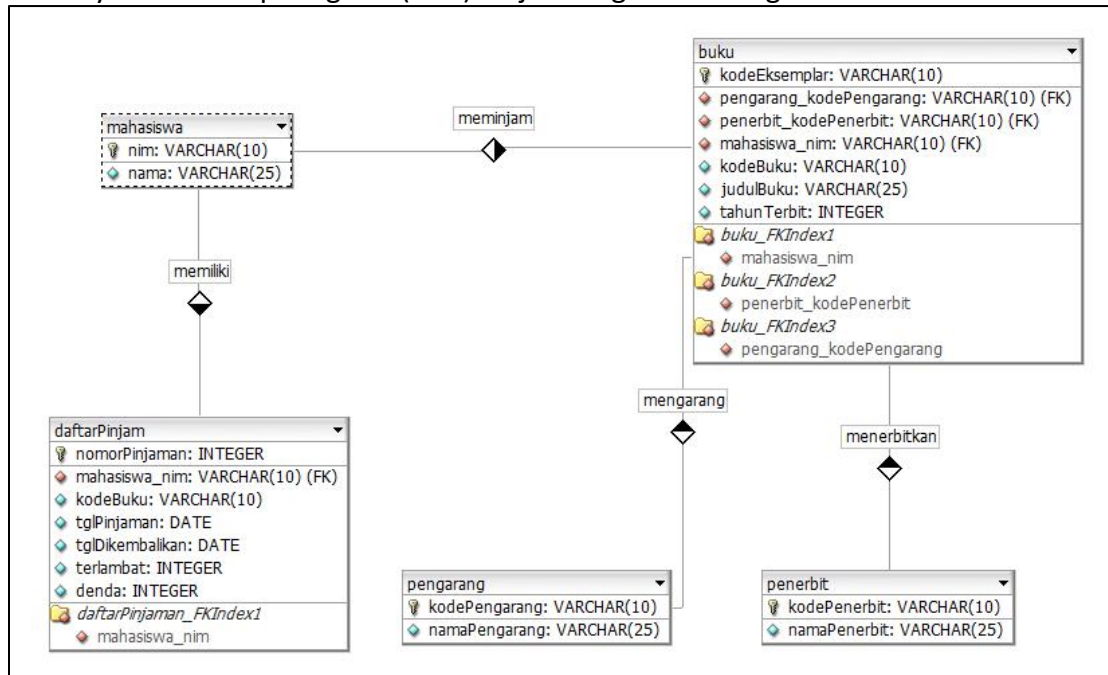
1. Entity Relationship Diagram (ERD) dasar



2. Relationship

- mahasiswa meminjam buku: One-to-Many(1:n)
atribute penghubung: *nim*(FK *nim* di buku)
- pengarang mengarang buku: One-to-Many (1:n)
atribute penghubung: *kodePengarang*(FK *kodePengarang* di buku)
- penerbit menerbitkan buku: One-to-Many (1:n)
atribute penghubung: *kodePenerbit*(FK *kodePenerbit* di buku)
- mahasiswa memiliki daftarPinjaman: One-to-Many(1:n)
atribute penghubung: *nim*(FK *nim* di daftarPinjaman)

3. Entity Relationship Diagram (ERD) lanjut dengan DB Designer



4. Data Definition Language (DDL)

```
Microsoft Windows [Version 10.0.18363.720]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\Hadid Aldio I>cd\

C:\>cd xampp\mysql\bin

C:\xampp\mysql\bin>mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 8
Server version: 10.4.11-MariaDB mariadb.org binary distribution

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> CREATE DATABASE perpustakaan;
Query OK, 1 row affected (0.007 sec)

MariaDB [(none)]> USE perpustakaan;
Database changed
```

```
MariaDB [perpustakaan]> CREATE TABLE mahasiswa(
-> nim VARCHAR(10) PRIMARY KEY,
-> nama VARCHAR(25) NOT NULL
-> );
Query OK, 0 rows affected (0.035 sec)
```

```

MariaDB [perpustakaan]> CREATE TABLE buku(
  -> kodeEksemplar VARCHAR(10) PRIMARY KEY,
  -> kodeBuku VARCHAR(10) NOT NULL,
  -> judulBuku VARCHAR(25) NOT NULL,
  -> tahunTerbit DATE NOT NULL,
  -> kodePenerbitFK VARCHAR(10) NOT NULL,
  -> kodePengarangFK VARCHAR(10) NOT NULL
  -> );
Query OK, 0 rows affected (0.038 sec)

```

```

MariaDB [perpustakaan]> CREATE TABLE penerbit(
  -> kodePenerbit VARCHAR(10) PRIMARY KEY,
  -> namaPenerbit VARCHAR(25) NOT NULL
  -> );
Query OK, 0 rows affected (0.035 sec)

```

```

MariaDB [perpustakaan]> CREATE TABLE pengarang(
  -> kodePengarang VARCHAR(10) PRIMARY KEY,
  -> namaPengarang VARCHAR(25) NOT NULL
  -> );
Query OK, 0 rows affected (0.033 sec)

```

```

MariaDB [perpustakaan]> CREATE TABLE daftarPinjam(
  -> nomorPinjam INTEGER PRIMARY KEY,
  -> nimFK VARCHAR(10) NOT NULL,
  -> kodeBuku VARCHAR(10) NOT NULL,
  -> tglPinjam DATE NOT NULL,
  -> tglDikembalikan DATE NOT NULL,
  -> terlambat INTEGER,
  -> denda INTEGER
  -> );
Query OK, 0 rows affected (0.034 sec)

```

5. Data Manipulation Language (DML)

```

MariaDB [perpustakaan]> INSERT INTO mahasiswa(nim,nama) VALUES
  -> ('n1','nama1'),('n2','nama2'),
  -> ('n3','nama3'),('n4','nama4'),
  -> ('n5','nama5'),('n6','nama6'),
  -> ('n7','nama7'),('n8','nama8'),
  -> ('n9','nama9'),('n10','nama10');
Query OK, 10 rows affected (0.103 sec)
Records: 10  Duplicates: 0  Warnings: 0

```

```

MariaDB [perpustakaan]> INSERT INTO buku(kodeEksemplar,kodeBuku, judulBuku, tahunTerbit, kodePenerbitFK, kodePengarangFK) VALUES
  -> ('kb1-ke1','kb1','judul1',2019,'kpene1','kpeng1'),
  -> ('kb1-ke2','kb1','judul1',2019,'kpene1','kpeng1'),
  -> ('kb1-ke3','kb1','judul1',2019,'kpene1','kpeng1'),
  -> ('kb1-ke4','kb1','judul1',2019,'kpene1','kpeng1'),
  -> ('kb1-ke5','kb1','judul1',2019,'kpene1','kpeng1'),
  -> ('kb2-ke1','kb2','judul2',2020,'kpene1','kpeng2'),
  -> ('kb2-ke2','kb2','judul2',2020,'kpene1','kpeng2'),
  -> ('kb2-ke3','kb2','judul2',2020,'kpene1','kpeng2'),
  -> ('kb2-ke4','kb2','judul2',2020,'kpene1','kpeng2'),
  -> ('kb2-ke5','kb2','judul2',2020,'kpene1','kpeng2');
Query OK, 10 rows affected, 10 warnings (0.003 sec)
Records: 10  Duplicates: 0  Warnings: 10

```

```

MariaDB [perpustakaan]> INSERT INTO penerbit(kodePenerbit,namaPenerbit) VALUES
  -> ('kpene1','penerbit1'),('kpene2','penerbit2'),
  -> ('kpene3','penerbit3'),('kpene4','penerbit4'),
  -> ('kpene5','penerbit5'),('kpene6','penerbit6'),
  -> ('kpene7','penerbit7'),('kpene8','penerbit8'),
  -> ('kpene9','penerbit9'),('kpene10','penerbit10');
Query OK, 10 rows affected (0.006 sec)
Records: 10  Duplicates: 0  Warnings: 0

```

```

MariaDB [perpustakaan]> INSERT INTO pengarang(kodePengarang,namaPengarang) VALUES
  -> ('kpeng1','pengarang1'),('kpeng2','pengarang2'),
  -> ('kpeng3','pengarang3'),('kpeng4','pengarang4'),
  -> ('kpeng5','pengarang5'),('kpeng6','pengarang6'),
  -> ('kpeng7','pengarang7'),('kpeng8','pengarang8'),
  -> ('kpeng9','pengarang9'),('kpeng10','pengarang10');
Query OK, 10 rows affected (0.005 sec)
Records: 10  Duplicates: 0  Warnings: 0

```

```

MariaDB [perpustakaan]> INSERT INTO daftarPinjam(nomorPinjam,nimFK,kodeBuku,tglPinjam,tglDikembalikan,terlambat,denda) VALUES
  -> (1,'n1','kb1','1-4-2020','8-4-2020',0,0),(2,'n6','kb1','1-4-2020','8-4-2020',0,0),
  -> (3,'n2','kb1','1-4-2020','8-4-2020',0,0),(4,'n7','kb1','1-4-2020','8-4-2020',0,0),
  -> (5,'n3','kb1','1-4-2020','8-4-2020',0,0),(6,'n8','kb1','1-4-2020','8-4-2020',0,0),
  -> (7,'n4','kb1','1-4-2020','8-4-2020',0,0),(8,'n9','kb1','1-4-2020','8-4-2020',0,0),
  -> (9,'n5','kb1','1-4-2020','8-4-2020',0,0),(10,'n10','kb1','1-4-2020','8-4-2020',0,0);
Query OK, 10 rows affected, 20 warnings (0.003 sec)
Records: 10  Duplicates: 0  Warnings: 20

```