

Mata Kuliah : Praktikum Sistem Basis Data

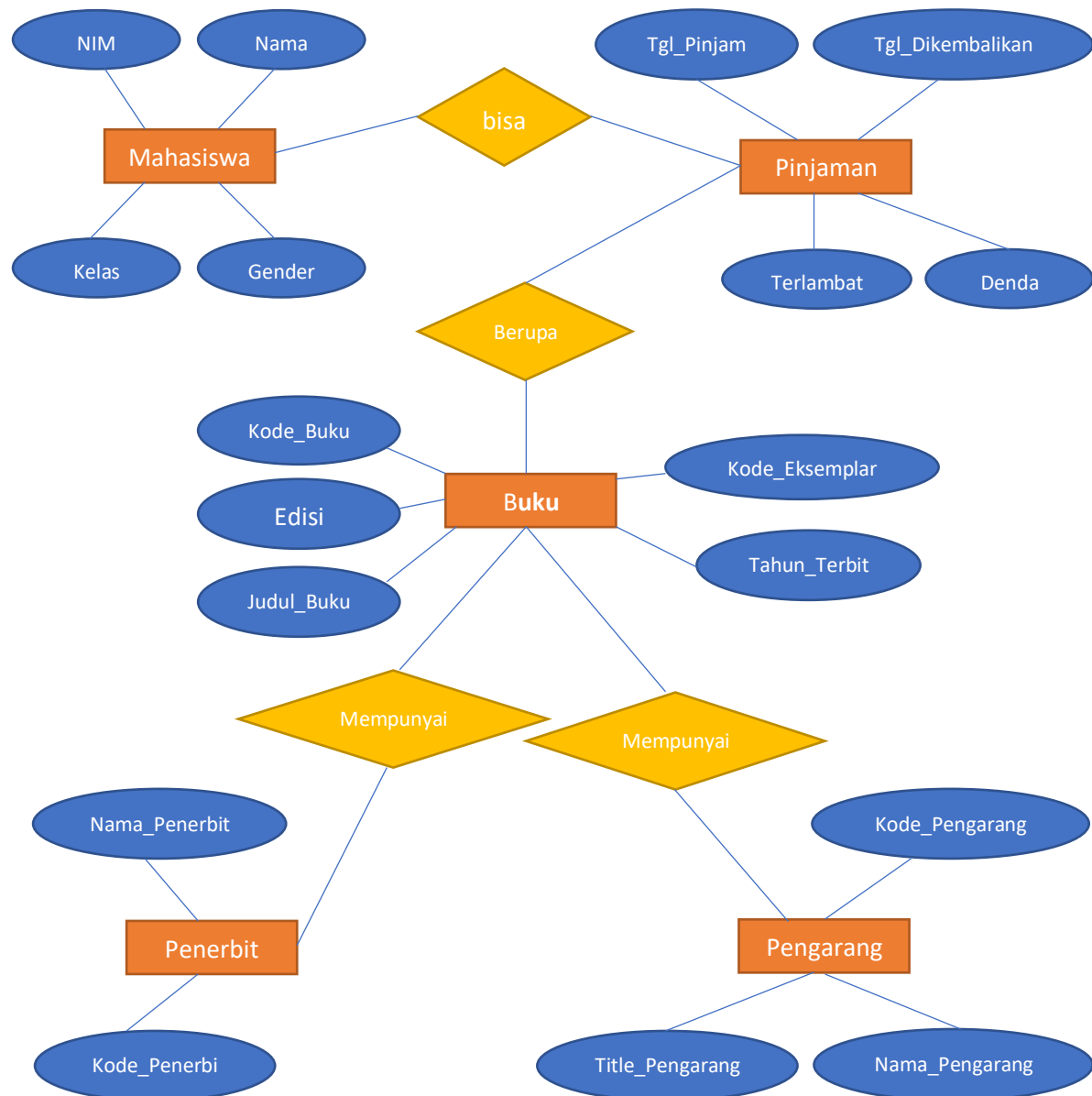
Nama : Alip Tabah Saputro

NIM : L200180215

Kelas : H

Pengampu : Heru Setya Nugraha

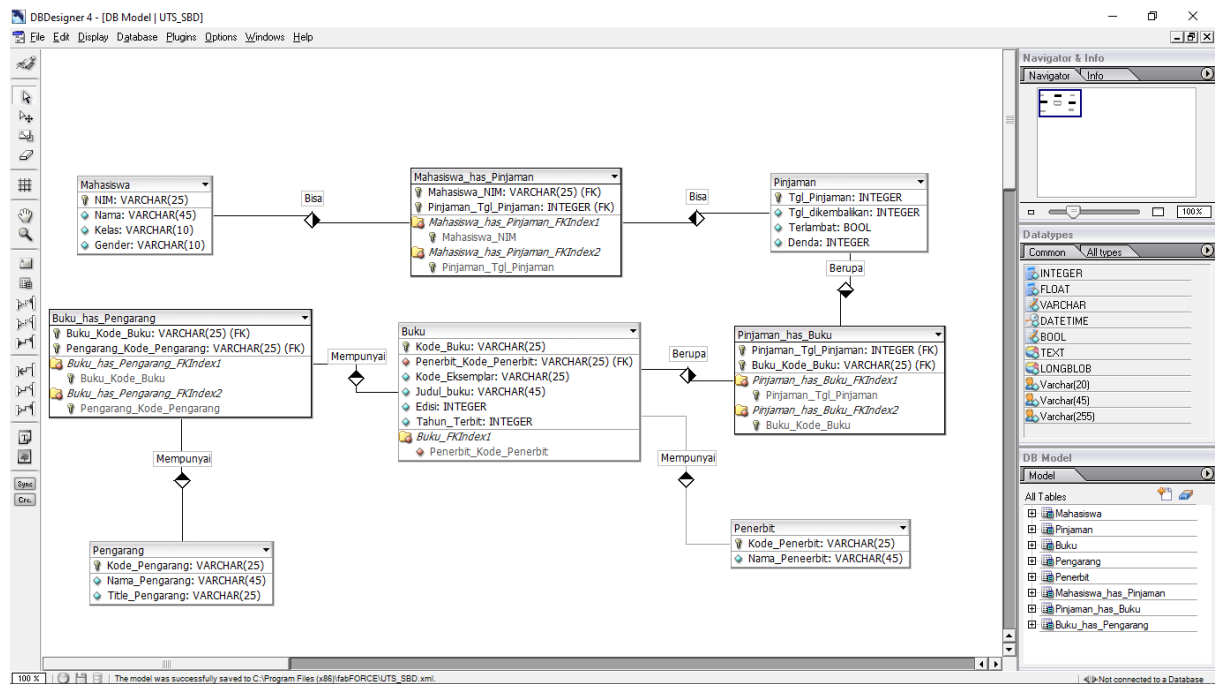
1. ERD



2. relasi

Entity	Relasi	Entity
Mahasiswa	M:n	Pinjaman
Pinjaman	M:n	Buku
Buku	M:n	Penerbit
Buku	M:n	Pengarang

3. Implementasi hasil ERD di DBDesigner



4. Implementasi di DATABASE menggunakan query SQL : CREATE

```
C:\WINDOWS\system32\cmd.exe - mysql -u root -p
Microsoft Windows [Version 10.0.18362.720]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\VALIP-CORPORATION>cd..
C:\Users>cd..
C:\>cd..
C:\>cd xampp\xampp\mysql\bin

C:\xampp\xampp\mysql\bin>mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 44
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)]> SHOW DATABASES;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| perpustakaan |
| phpmyadmin |
| test |
+-----+
6 rows in set (0.002 sec)

MariaDB [(none)]> use perpustakaan;
Database changed
MariaDB [perpustakaan]> CREATE TABLE Mahasiswa(
  -> NIM VARCHAR(25) NOT NULL,
  -> Nama VARCHAR(45) NOT NULL,
  -> Kelas VARCHAR(10) NOT NULL,
  -> Gender VARCHAR(10) NOT NULL,
  -> PRIMARY KEY (NIM)
  -> );
Query OK, 0 rows affected (1.413 sec)

MariaDB [perpustakaan]> SHOW TABLES;
+-----+
| Tables_in_perpustakaan |
+-----+
| mahasiswa |
+-----+
1 row in set (0.001 sec)

MariaDB [perpustakaan]> CREATE TABLE Pinjaman(
  -> Tgl_Pinjam INTEGER NOT NULL,
  -> Tgl_Dikembalikan INTEGER NOT NULL,
  -> Terlambat BOOL NOT NULL,
  -> Denda INTEGER NOT NULL,
  -> );
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near '')' at line 6
MariaDB [perpustakaan]> CREATE TABLE Pinjaman(
  -> Tgl_Pinjam INTEGER NOT NULL,
  -> Tgl_Dikembalikan INTEGER NOT NULL,
  -> Terlambat BOOL NOT NULL,
  -> Denda INTEGER NOT NULL,
  -> PRIMARY KEY(Tgl_Pinjam)
  -> );
Query OK, 0 rows affected (0.700 sec)

MariaDB [perpustakaan]> CREATE TABLE Buku(
  -> Kode_Buku INTEGER NOT NULL,
  -> Kode_Eksemplar INTEGER NOT NULL;;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near '' at line 3
MariaDB [perpustakaan]> CREATE TABLE Buku(
  -> Kode_Buku VARCHAR(25) NOT NULL,
  -> Kode_Eksemplar VARCHAR(25) NOT NULL,
  -> Judul_buku VARCHAR(45) NOT NULL,
  -> Edisi INTEGER NOT NULL,
  -> Tahun_Terbit INTEGER NOT NULL,
  -> PRIMARY KEY (Kode_Buku)
  -> );
Query OK, 0 rows affected (0.775 sec)

MariaDB [perpustakaan]> CREATE TABLE Pengarang(
  -> Kode_Pengarang VARCHAR(25) NOT NULL,
  -> Nama_Pengarang VARCHAR(45) NOT NULL,
```

```

C:\WINDOWS\system32\cmd.exe - mysql -u root -p
-> Edisi INTEGER NOT NULL,
-> Tahun Terbit INTEGER NOT NULL,
-> PRIMARY KEY (Kode_Buku)
-> );
Query OK, 0 rows affected (0.775 sec)

MariaDB [perpustakaan]> CREATE TABLE Pengarang(
-> Kode_Pengarang VARCHAR(25) NOT NULL,
-> Nama_Pengarang VARCHAR(45) NOT NULL,
-> Title_Pengarang VARCHAR(25) NOT NULL,
-> PRIMARY KEY(Kode_Pengarang)
-> );
Query OK, 0 rows affected (0.589 sec)

MariaDB [perpustakaan]> DROP TABLE Buku
-> ;
Query OK, 0 rows affected (0.470 sec)

MariaDB [perpustakaan]> SHOW TABLES;
+-----+
| Tables_in_perpustakaan |
+-----+
| mahasiswa              |
| pengarang              |
| pinjaman              |
+-----+
3 rows in set (0.002 sec)

MariaDB [perpustakaan]> CREATE TABLE Buku(
-> Kode_Buku VARCHAR(25) NOT NULL,
-> Kode_Eksemplar VARCHAR(25) NOT NULL,
-> Judul_buku VARCHAR(45) NOT NULL,
-> Edisi INTEGER NOT NULL,
-> Tahun Terbit INTEGER NOT NULL,
-> PRIMARY KEY (Kode_Eksemplar)
-> );
Query OK, 0 rows affected (0.586 sec)

MariaDB [perpustakaan]> CREATE TABLE Penerbit(
-> Kode_Penerbit VARCHAR(25),
-> Kode_Penerbit VARCHAR(25);
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near '' at line 3

MariaDB [perpustakaan]> CREATE TABLE Penerbit(
-> Kode_Penerbit VARCHAR(25) NOT NULL,
-> Nama_Penerbit VARCHAR(45) NOT NULL,

```

```

C:\WINDOWS\system32\cmd.exe - mysql -u root -p
3 rows in set (0.002 sec)

MariaDB [perpustakaan]> CREATE TABLE Buku(
-> Kode_Buku VARCHAR(25) NOT NULL,
-> Kode_Eksemplar VARCHAR(25) NOT NULL,
-> Judul_buku VARCHAR(45) NOT NULL,
-> Edisi INTEGER NOT NULL,
-> Tahun Terbit INTEGER NOT NULL,
-> PRIMARY KEY (Kode_Eksemplar)
-> );
Query OK, 0 rows affected (0.586 sec)

MariaDB [perpustakaan]> CREATE TABLE Penerbit(
-> Kode_Penerbit VARCHAR(25),
-> Kode_Penerbit VARCHAR(25);
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near '' at line 3

MariaDB [perpustakaan]> CREATE TABLE Penerbit(
-> Kode_Penerbit VARCHAR(25) NOT NULL,
-> Nama_Penerbit VARCHAR(45) NOT NULL,
-> PRIMARY KEY (Kode_Penerbit)
-> );
Query OK, 0 rows affected (0.874 sec)

MariaDB [perpustakaan]> SHOW TABLES;
+-----+
| Tables_in_perpustakaan |
+-----+
| buku                   |
| mahasiswa              |
| penerbit               |
| pengarang              |
| pinjaman              |
+-----+
5 rows in set (0.002 sec)

MariaDB [perpustakaan]>

```

5. INSERT data ke Database Perpustakaan

```
C:\WINDOWS\system32\cmd.exe - mysql -u root -p

MariaDB [perpustakaan]> INSERT INTO Buku VALUES
-> ('001.01/ws','001.01/ws/0001','AMALMULA','1','2020'),
-> ('001.01/ws','001.01/ws/0002','AMALMULA','1','2020'),
-> ('001.01/ws','001.01/ws/0003','AMALMULA','1','2020'),
-> ('001.01/ws','001.01/ws/0004','AMALMULA','1','2020'),
-> ('001.01/ws','001.01/ws/0005','AMALMULA','1','2020'),
-> ('001.01/ws','001.01/ws/0006','AMALMULA','1','2020'),
-> ('001.01/ws','001.01/ws/0007','AMALMULA','1','2020'),
-> ('001.01/ws','001.01/ws/0008','AMALMULA','1','2020'),
-> ('001.01/ws','001.01/ws/0009','AMALMULA','1','2020'),
-> ('001.01/ws','001.01/ws/0010','AMALMULA','1','2020');
Query OK, 10 rows affected (0.662 sec)
Records: 10 Duplicates: 0 Warnings: 0

MariaDB [perpustakaan]> INSERT INTO Makasiswa VALUES
-> ;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near '' at line 1

MariaDB [perpustakaan]> INSERT INTO Mahasiswa VALUES
-> ('L200180215','Alip Tabah Saputro','H','Laki-laki'),
-> ('L200180216','Tabah Saputro','H','Laki-laki'),
-> ('L200180217','Saputro','H','Laki-laki'),
-> ('L200180218','Qurrota A yuniah','G','Perempuan'),
-> ('L200180219','A yuniah','G','Perempuan'),
-> ('L200180220','Qurrota','G','Perempuan'),
-> ('L200180221','Alip','F','Laki-laki'),
-> ('L200180222','Tabah','F','Laki-laki'),
-> ('L200180221','Alip tabah','F','Laki-laki'),
-> ('L200180222','Tabah','F','Laki-laki');
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near '' at line 1
1
ERROR: No query specified

ERROR: No query specified

ERROR: No query specified

MariaDB [perpustakaan]> INSERT INTO Mahasiswa VALUES
-> ('L200180215','Alip Tabah Saputro','H','Laki-laki'),
-> ('L200180216','Tabah Saputro','H','Laki-laki'),
-> ('L200180217','Saputro','H','Laki-laki'),
-> ('L200180218','Qurrota A yuniah','G','Perempuan'),
-> ('L200180219','A yuniah','G','Perempuan'),
-> ('L200180220','Qurrota','G','Perempuan'),
-> ('L200180221','Alip','F','Laki-laki'),
-> ('L200180222','Tabah','F','Laki-laki'),
-> ('L200180223','saputro alip','F','Laki-laki'),
-> ('L200180224','tabah alip','F','Laki-laki'),
-> ;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near '' at line 1
1

MariaDB [perpustakaan]> INSERT INTO Mahasiswa VALUES
-> ('L200180215','Alip Tabah Saputro','H','Laki-laki'),
-> ('L200180216','Tabah Saputro','H','Laki-laki'),
-> ('L200180217','Saputro','H','Laki-laki'),
-> ('L200180218','Qurrota A yuniah','G','Perempuan'),
-> ('L200180219','A yuniah','G','Perempuan'),
-> ('L200180220','Qurrota','G','Perempuan'),
-> ('L200180221','Alip','F','Laki-laki'),
-> ('L200180222','Tabah','F','Laki-laki'),
-> ('L200180223','agungka','I','Laki-laki'),
-> ('L200180224','Alip aja','I','Laki-laki');
Query OK, 10 rows affected (0.214 sec)
Records: 10 Duplicates: 0 Warnings: 0

MariaDB [perpustakaan]> INSERT INTO Penerbit VALUES
-> ('SOC01','ATRILANGGA'),
-> ('SOC02','GRAMEDIA'),
-> ('SOC03','KOPERDAS'),
-> ('SOC04','UMS'),
-> ('SOC05','UMS'),
-> ('SOC06','UNISRI'),
-> ('SOC07','ISI'),
-> ('SOC08','PERCETAKAN MAKMUR'),
-> ('SOC09','PERCETAKAN SETIA'),
```


C:\WINDOWS\system32\cmd.exe - mysql -u root -p

MariaDB [perpustakaan]> DESC Mahasiswa;

Field	Type	Null	Key	Default	Extra
NIM	varchar(25)	NO	PRI	NULL	
Nama	varchar(45)	NO		NULL	
Kelas	varchar(10)	NO		NULL	
Gender	varchar(10)	NO		NULL	

4 rows in set (0.093 sec)

MariaDB [perpustakaan]> SELECT * FROM Buku;

Kode_Buku	Kode_Eksemplar	Judul_buku	Edisi	Tahun_Terbit
001.01/ws	001.01/ws/0001	AWALMULA	1	2020
001.01/ws	001.01/ws/0002	AWALMULA	1	2020
001.01/ws	001.01/ws/0003	AWALMULA	1	2020
001.01/ws	001.01/ws/0004	AWALMULA	1	2020
001.01/ws	001.01/ws/0005	AWALMULA	1	2020
001.01/ws	001.01/ws/0006	AWALMULA	1	2020
001.01/ws	001.01/ws/0007	AWALMULA	1	2020
001.01/ws	001.01/ws/0008	AWALMULA	1	2020
001.01/ws	001.01/ws/0009	AWALMULA	1	2020
001.01/ws	001.01/ws/0010	AWALMULA	1	2020

10 rows in set (0.001 sec)

MariaDB [perpustakaan]> SELECT * FROM Mahasiswa;

NIM	Nama	Kelas	Gender
L200180215	Alip Tabah Saputro	H	Laki-laki
L200180216	Tabah Saputro	H	Laki-laki
L200180217	Saputro	H	Laki-laki
L200180218	Qurrota A'yuniah	G	Perempuan
L200180219	A'yuniah	G	Perempuan
L200180220	Qurrota	G	Perempuan
L200180221	Alip	F	Laki-laki
L200180222	Tabah	F	Laki-laki
L200180223	agungka	i	Laki-laki
L200180224	Alip aja	i	Laki-laki

10 rows in set (0.002 sec)

MariaDB [perpustakaan]> SELECT * FROM Penerbit;

Kode_Penerbit	Nama_Penerbit
SOC01	ATRLANGGA
SOC02	GRAMEDIA
SOC03	KOPERJAS
SOC04	UMS
SOC05	UNS
SOC06	UNISRI
SOC07	ISI
SOC08	PERCETAKAN MAKMUR
SOC09	PERCETAKAN SETIA
SOC10	PERCETAKAN AMANAH

10 rows in set (0.002 sec)

MariaDB [perpustakaan]> SELECT * FROM Penerbit;

Kode_Penerbit	Nama_Penerbit
SOC01	ATRLANGGA
SOC02	GRAMEDIA
SOC03	KOPERJAS
SOC04	UMS
SOC05	UNS
SOC06	UNISRI
SOC07	ISI
SOC08	PERCETAKAN MAKMUR
SOC09	PERCETAKAN SETIA
SOC10	PERCETAKAN AMANAH

10 rows in set (0.001 sec)

MariaDB [perpustakaan]> SELECT * FROM Pengarang;

Kode_Pengarang	Nama_Pengarang	Title_Pengarang
A01	Miwit Supriyanti	S.Kom, M.Kom
A02	Heru Setya Nugraha	S.T., M.Kom
A03	Yudi Wahyu Wibowo	S.T., M.Eng
A04	Alip Tabah Saputro	S.Kom, M.Kom
A05	Tabah Saputro	S.Kom, M.Kom
A06	Saputro	S.Kom, M.Kom
A07	Alip	S.Kom, M.Kom
A08	Tabah	S.Kom, M.Kom
A09	Qurrota Ayun	S.Psi
A10	Qurrota	S.Psi

10 rows in set (0.001 sec)

MariaDB [perpustakaan]> SELECT * FROM Pinjaman;

Tgl_Pinjam	Tgl_Dikembalikan	Terlambat	Denda
1012020	10012020	0	0
2012020	10012020	0	0
3012020	10012020	0	0

C:\WINDOWS\system32\cmd.exe - mysql -u root -p

A09	Qurrota Ayun	S.Psi
A10	Qurrota	S.Psi

10 rows in set (0.001 sec)

MariaDB [perpustakaan]> SELECT * FROM Pinjaman;

Tgl_Pinjam	Tgl_Dikembalikan	Terlambat	Denda
1012020	10012020	0	0
2012020	10012020	0	0
3012020	10012020	0	0
4012020	10012020	0	0
5012020	10012020	0	0
6012020	10012020	1	10000
7012020	10012020	1	10000
8012020	10012020	1	10000
9012020	10012020	1	10000
10012020	9012020	1	10000

10 rows in set (0.001 sec)

MariaDB [perpustakaan]> _