

Nama : Faizal Wahyu Nuramdhan

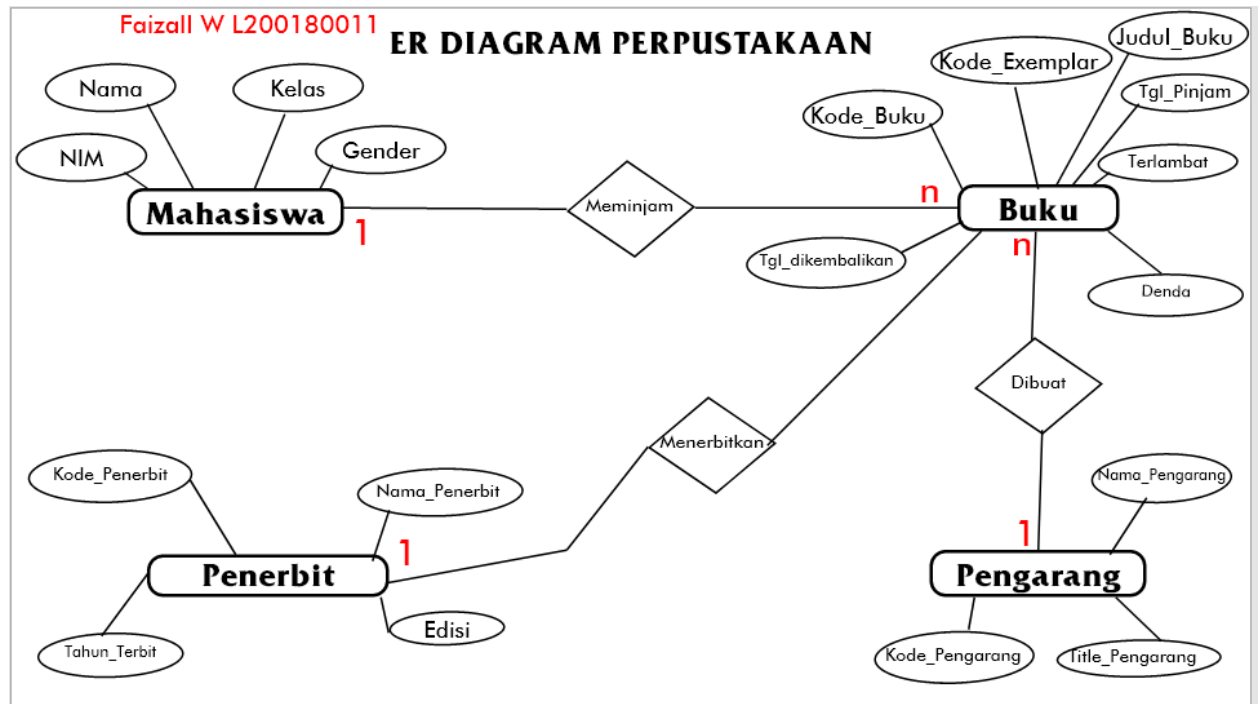
NIM : L200180011

Kelas : A

Pengampu : Heru Setya Nugraha

## Jawaban UTS PRAK SISTEM BASIS DATA

### 1. Membuat ERD

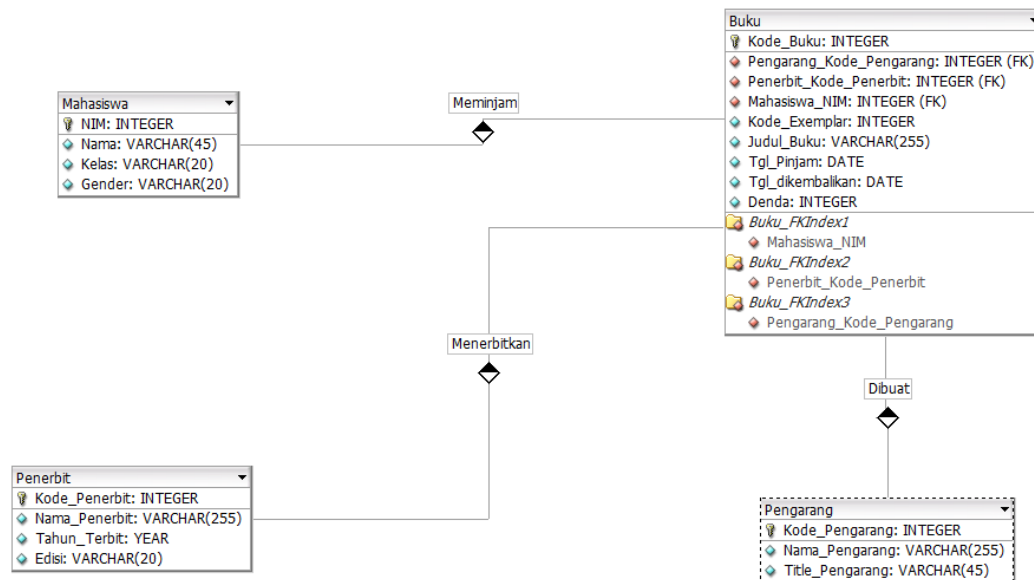


### 2. Relationship

- **Mahasiswa meminjam Buku:**
  - Tabel utama: Mahasiswa
  - Tabel Kedua: Buku
  - Relationship: 1:n
- **Penerbit menerbitkan Buku:**
  - Tabel utama: Penerbit
  - Tabel kedua: Buku
  - Relationship: 1:n
- **Pengarang Dibuat Buku:**
  - Tabel utama: Buku
  - Tabel kedua: Pengarang

- Relationship: 1:n

### 3. Membuat ERD dengan DBDesigner



- Tabel Mahasiswa:
  - NIM: INTEGER
  - Nama: VARCHAR(45)
  - Kelas: VARCHAR(20)
  - Gender: VARCHAR(20)
- Tabel Penerbit:
  - Kode\_Penerbit: INTEGER
  - Nama\_Penerbit: VARCHAR(255)
  - Tahun\_Terbit: YEAR
  - Edisi: VARCHAR(20)
- Tabel Pengarang:
  - Kode\_Pengarang: INTEGER
  - Nama\_Pengarang: VARCHAR(255)
  - Title\_Pengarang: VARCHAR(45)
- Tabel Buku:
  - Kode\_Buku: INTEGER
  - Kode\_Exemplar: INTEGER
  - Judul\_Buku: VARCHAR(255)

- Tgl\_Pinjam: DATE
- Tgl\_Dikembalikan: DATE
- Denda: INTEGER

#### 4. Mengimplementasikan kedalam CREATE di CMD

```

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

MariaDB [(none)]> use perpustakaan;
Database changed
MariaDB [perpustakaan]> CREATE TABLE Mahasiswa(
  -> NIM INTEGER PRIMARY KEY,
  -> Nama VARCHAR(45),
  -> Kelas VARCHAR(20),
  -> Gender VARCHAR(20));
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 5
MariaDB [perpustakaan]> CREATE TABLE mahasiswa(
  -> NIM INTEGER PRIMARY KEY NOT NULL,
  -> nama VARCHAR(45),
  -> Kelas VARCHAR(20),
  -> Gender VARCHAR(20));
Query OK, 0 rows affected (0.445 sec)

MariaDB [perpustakaan]> CREATE TABLE penerbit(
  -> kode_penerbit INTEGER PRIMARY KEY NOT NULL,
  -> nama_Penerbit VARCHAR(255),
  -> tahun_terbit YEAR,
  -> edisi VARCHAR(20));
Query OK, 0 rows affected (0.373 sec)

MariaDB [perpustakaan]> CREATE TABLE pengarang(
  -> kode_pengarang INTEGER PRIMARY KEY NOT NULL,
  -> nama_pengarang VARCHAR(255),
  -> title_Pengarang VARCHAR(45));
Query OK, 0 rows affected (0.312 sec)

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

MariaDB [perpustakaan]> CREATE TABLE buku(
  -> kode_buku INTEGER PRIMARY KEY NOT NULL,
  -> pengarang_kode_pengarangFK INTEGER REFERENCES pengarang(kode_pengarang) ON DELETE CASCADE ON UPDATE CASCADE,
  -> penerbit_kode_penerbitFK INTEGER REFERENCES penerbit(kode_penerbit) ON DELETE CASCADE ON UPDATE CASCADE,
  -> mahasiswa_NIMFK INTEGER REFERENCES mahasiswa(NIM) ON DELETE CASCADE ON UPDATE CASCADE,
  -> kode_exemplar INTEGER,
  -> judul_buku VARCHAR(255),
  -> tgl_pinjam DATE,
  -> tgl_dikembalikan,
  -> denda INTEGER);
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 'denda INTEGER)' at line 9
MariaDB [perpustakaan]> CREATE TABLE buku(
  -> kode_buku INTEGER PRIMARY KEY NOT NULL,
  -> pengarang_kode_pengarangFK INTEGER REFERENCES pengarang(kode_pengarang) ON DELETE CASCADE ON UPDATE CASCADE,
  -> penerbit_kode_penerbitFK INTEGER REFERENCES penerbit(kode_penerbit) ON DELETE CASCADE ON UPDATE CASCADE,
  -> mahasiswa_NIMFK INTEGER REFERENCES mahasiswa(NIM) ON DELETE CASCADE ON UPDATE CASCADE,
  -> kode_exemplar INTEGER,
  -> judul_buku VARCHAR(255),
  -> tgl_pinjam DATE,
  -> tgl_dikembalikan DATE,
  -> denda INTEGER);
Query OK, 0 rows affected (0.350 sec)

MariaDB [perpustakaan]> show tables;
+-----+
| Tables_in_perpustakaan |

```

```
C:\WINDOWS\system32\cmd.exe - mysql -u root -p
Query OK, 0 rows affected (0.350 sec)

MariaDB [perpustakaan]> show tables;
+-----+
| Tables_in_perpustakaan |
+-----+
| buku                    |
| mahasiswa              |
| penerbit                |
| pengarang               |
+-----+
4 rows in set (0.106 sec)

MariaDB [perpustakaan]> describe buku;
+-----+-----+-----+-----+-----+-----+
| Field                | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| kode_buku             | int(11)       | NO   | PRI | NULL    |       |
| pengarang_kode_pengarangFK | int(11)       | YES  |     | NULL    |       |
| penerbit_kode_penerbitFK | int(11)       | YES  |     | NULL    |       |
| mahasiswa_NIMFK       | int(11)       | YES  |     | NULL    |       |
| kode_exemplar         | int(11)       | YES  |     | NULL    |       |
| judul_buku            | varchar(255)  | YES  |     | NULL    |       |
| tgl_pinjam            | date          | YES  |     | NULL    |       |
| tgl_dikembalikan      | date          | YES  |     | NULL    |       |
| denda                 | int(11)       | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
9 rows in set (0.059 sec)
```

## 5. Menambahkan Data / Record

```
C:\WINDOWS\system32\cmd.exe - mysql -u root -p
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 'PEREMPUAN')',
(024, "Taehyung", "PSIKOLOGI E", "LAKI LAKI"),
(025, "Yeji", "INFOR' at line 9
MariaDB [perpustakaan]> INSERT INTO mahasiswa(NIM, nama, kelas, gender) values
-> (011, "Faizal", "INFORMATIKA A", "LAKI LAKI"),
-> (012, "Yuna", "MANAJEMEN B", "PEREMPUAN"),
-> (016, "Lia", "EKONOMI F", "PEREMPUAN"),
-> (017, "Kai", "INFORMATIKA C", "LAKI LAKI"),
-> (019, "Jimin", "ARSITEK B", "LAKI LAKI"),
-> (020, "Suga", "MESIN A", "LAKI LAKI"),
-> (022, "Eunha", "KEDOKTERAN A", "PEREMPUAN"),
-> (023, "Yerin", "KEDOKTERAN B", "PEREMPUAN"),
-> (024, "Taehyung", "PSIKOLOGI E", "LAKI LAKI"),
-> (025, "Yeji", "INFORMATIKA A", "PEREMPUAN"));
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 11
MariaDB [perpustakaan]> INSERT INTO mahasiswa(NIM, nama, kelas, gender) values
-> (011, "Faizal", "INFORMATIKA A", "LAKI LAKI"),
-> (012, "Yuna", "MANAJEMEN B", "PEREMPUAN"),
-> (016, "Lia", "EKONOMI F", "PEREMPUAN"),
-> (017, "Kai", "INFORMATIKA C", "LAKI LAKI"),
-> (019, "Jimin", "ARSITEK B", "LAKI LAKI"),
-> (020, "Suga", "MESIN A", "LAKI LAKI"),
-> (022, "Eunha", "KEDOKTERAN A", "PEREMPUAN"),
-> (023, "Yerin", "KEDOKTERAN B", "PEREMPUAN"),
-> (024, "Taehyung", "PSIKOLOGI E", "LAKI LAKI"),
-> (025, "Yeji", "INFORMATIKA A", "PEREMPUAN");
Query OK, 10 rows affected (0.230 sec)
```

```
MariaDB [perpustakaan]> select * from mahasiswa;
```

NIM	nama	Kelas	Gender
11	Faizal	INFORMATIKA A	LAKI LAKI
12	Yuna	MANAJEMEN B	PEREMPUAN
16	Lia	EKONOMI F	PEREMPUAN
17	Kai	INFORMATIKA C	LAKI LAKI
19	Jimin	ARSITEK B	LAKI LAKI
20	Suga	MESIN A	LAKI LAKI
22	Eunha	KEDOKTERAN A	PEREMPUAN
23	Yerin	KEDOKTERAN B	PEREMPUAN
24	Taehyung	PSIKOLOGI E	LAKI LAKI
25	Yeji	INFORMATIKA A	PEREMPUAN

```
10 rows in set (0.030 sec)
```

```
MariaDB [perpustakaan]>
```

```
MariaDB [perpustakaan]> insert into penerbit(kode_penerbit, nama_penerbit, tahun terbit, edisi) values
```

```
-> (007, "GRAMEDIA", 2009, "Pertama"),  
-> (008, "GRAMEDIA", 2010, "Kedua"),  
-> (009, "GRAMEDIA", 2012, "Ketiga"),  
-> (101, "ElexMedia", 2009, "Pertama"),  
-> (102, "ElexMedia", 2013, "Kedua"),  
-> (201, "GAGAS MEDIA", 2011, "Pertama"),  
-> (202, "GAGAS MEDIA", 2014, "Kedua"),  
-> (301, "INTERMEDIA", 2014, "PERTAMA"),  
-> (302, "INTERMEDIA", 2014, "KEDUA"),  
-> (303, "INTERMEDIA", 2015, "KETIGA");
```

```

C:\WINDOWS\system32\cmd.exe - mysql -u root -p
on for the right syntax to use near 'Dika', 'M.pd S.pd'
;
.. at line 2
MariaDB [perpustakaan]> insert into pengarang(kode_pengarang, nama_pengarang, title_pengarang) values
-> (001, "Raditya Dika", "M.pd S.pd"),
-> (002, "Wiwit Supriyanti", "M.KOM, S.KOM"),
-> (003, "Hwang Eunbi", "S.Ked"),
-> (004, "Ernest Prakasa", "S.Sos"),
-> (005, "Jung Yerin", "S.E"),
-> (006, "Choi Yuna", "S.H M.H"),
-> (007, "Nabila", "S.Ked"),
-> (008, "Kim Sojung", "S.T"),
-> (009, "Jerome Polin", "S.Math"),
-> (010, "Hansol Jang", "S.E");
Query OK, 10 rows affected (0.101 sec)
Records: 10 Duplicates: 0 Warnings: 0

MariaDB [perpustakaan]> select * from pengarang;
+-----+-----+-----+
| kode_pengarang | nama_pengarang | title_Pengarang |
+-----+-----+-----+
| 1 | Raditya Dika | M.pd S.pd |
| 2 | Wiwit Supriyanti | M.KOM, S.KOM |
| 3 | Hwang Eunbi | S.Ked |
| 4 | Ernest Prakasa | S.Sos |
| 5 | Jung Yerin | S.E |
| 6 | Choi Yuna | S.H M.H |
| 7 | Nabila | S.Ked |
| 8 | Kim Sojung | S.T |
+-----+-----+-----+

```

```

C:\WINDOWS\system32\cmd.exe - mysql -u root -p
-> (009, "Jerome Polin", "S.Math"),
-> (010, "Hansol Jang", "S.E");
Query OK, 10 rows affected (0.101 sec)
Records: 10 Duplicates: 0 Warnings: 0

MariaDB [perpustakaan]> select * from pengarang;
+-----+-----+-----+
| kode_pengarang | nama_pengarang | title_Pengarang |
+-----+-----+-----+
| 1 | Raditya Dika | M.pd S.pd |
| 2 | Wiwit Supriyanti | M.KOM, S.KOM |
| 3 | Hwang Eunbi | S.Ked |
| 4 | Ernest Prakasa | S.Sos |
| 5 | Jung Yerin | S.E |
| 6 | Choi Yuna | S.H M.H |
| 7 | Nabila | S.Ked |
| 8 | Kim Sojung | S.T |
| 9 | Jerome Polin | S.Math |
| 10 | Hansol Jang | S.E |
+-----+-----+-----+
10 rows in set (0.001 sec)

MariaDB [perpustakaan]>

```