

**LAPORAN TUGAS BESAR**  
**MERANCANG DATABASE DENGAN MENGGUNAKAN BAHASA**  
**PEMROGAMAN SQL**



Disusun Oleh :

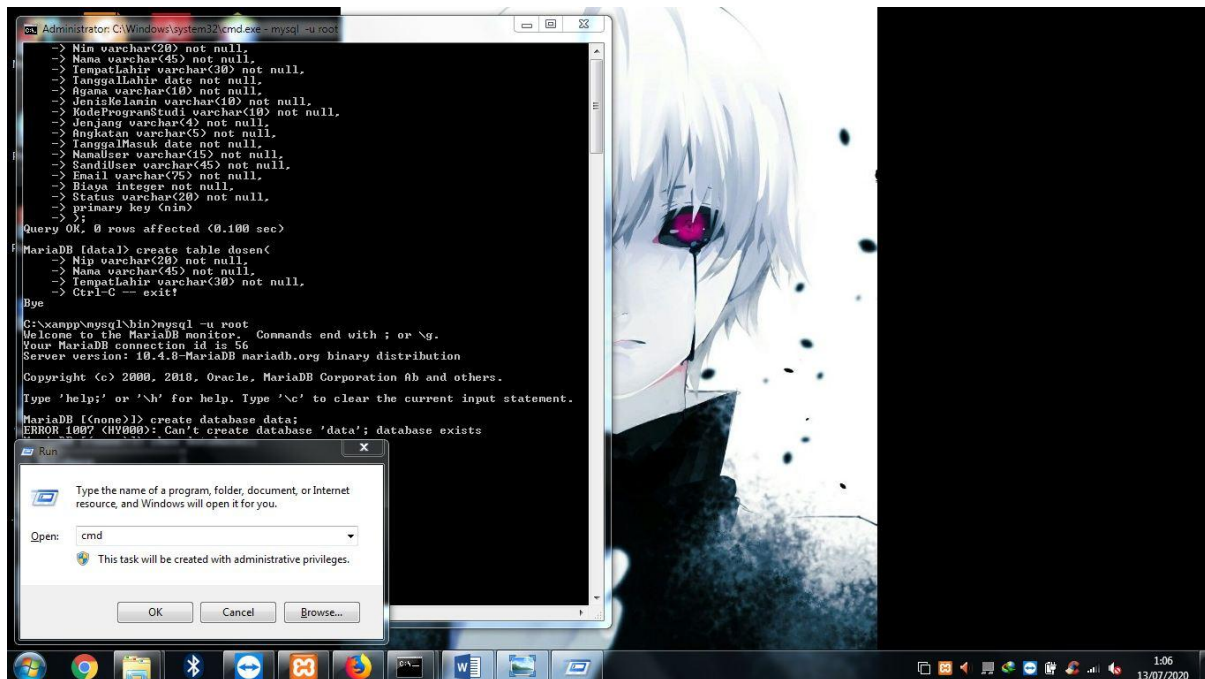
Dellavianti Nishfi Ilmiah Huda (1194070)

Dosen Pengampu :

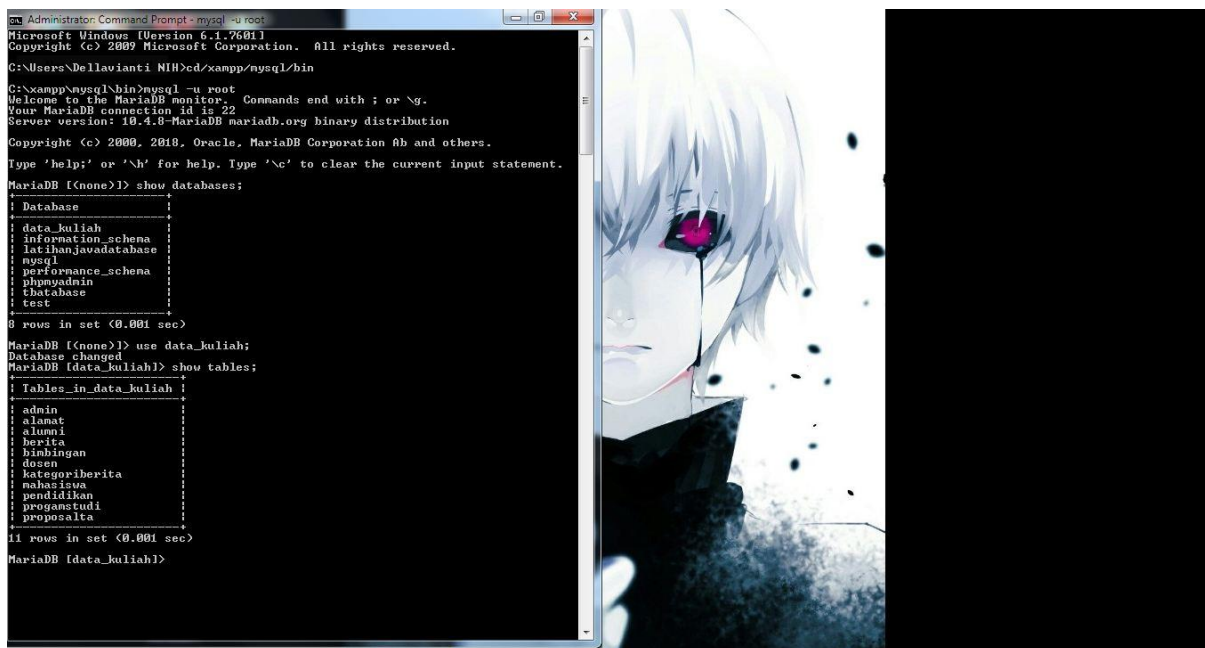
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**POLITEKNIK POS INDONESIA**  
**BANDUNG**  
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Pertama buka (windows + R) pada keyboard laptop maka akan muncul seperti gambar ini. Kemudian klik oke dan mulai ke cmd.



Tadi saya sempat membuat table yang pertama dan eror next kemudian saya membuat ulang table lagi dengan dan menggunakan create database data; database yang ingin kita buat bisa menggunakan nama sesuai variable name yang kita mau.



Kemudian kita ketik show databasesnya, untuk mengecek table apa saja yang sudah masuk di phpMyAdmin kemudian, jika sudah ada kita mulai buat syntax create table data( kemudian tuliskan jenis table apa, tentukan type data, values dan not null sebagai tanda tidak boleh kosong, lakukan secara berulang-ulang.

```
MariaDB [data]> create table dosen(  
-> Nip varchar(20) not null,  
-> Nama varchar(45) not null,  
-> TempatLahir varchar(30) not null,  
-> Ctrl-C — exit!  
Bye  
C:\xampp\mysql\bin>mysql -u root  
Welcome to the MariaDB monitor. Commands end with ; or \g.  
Your MariaDB connection id is 56  
Server version: 10.4.8-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 data;  
ERROR 1007 (HY000): Can't create database 'data'; database exists  
MariaDB [(none)]> show databases;  
+-----+  
| Database |  
+-----+  
| data     |  
| data_kuliah |  
| information_schema |  
| latihan_javadb |  
| mysql    |  
| performance_schema |  
| phpmyadmin |  
| test     |  
+-----+  
9 rows in set (0.001 sec)  
MariaDB [(none)]> use data;  
Database changed  
MariaDB [data]> create table dosen(  
-> Nip varchar(20) not null,
```

```
Select Administrator C:\Windows\system32\cmd.exe - mysql -u root  
MariaDB [data]> create table dosen(  
-> Nip varchar(20) not null,  
-> Nama varchar(45) not null,  
-> TempatLahir varchar(30) not null,  
-> TanggalLahir date not null,  
-> Agama varchar(20) not null,  
-> JenisKelamin varchar(4) not null,  
-> Status varchar(10) not null,  
-> PendidikanTerakhir varchar(4) not null,  
-> NomorUser varchar(15) not null,  
-> SandiUser varchar(45) not null,  
-> Email varchar(75) not null,  
-> primary key (nip)  
-> );  
Query OK, 0 rows affected (0.061 sec)  
MariaDB [data]> create table kategoriberita(  
-> idKategori integer not null,  
-> NamaKategori varchar(45) not null,  
-> primary key (idKategori)  
-> );  
Query OK, 0 rows affected (0.066 sec)  
MariaDB [data]> Bye  
Ctrl-C — exit!  
C:\xampp\mysql\bin>mysql -u root  
Welcome to the MariaDB monitor. Commands end with ; or \g.  
Your MariaDB connection id is 75  
Server version: 10.4.8-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 data;  
ERROR 1007 (HY000): Can't create database 'data'; database exists  
MariaDB [(none)]> show databases;  
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 'database' a  
MariaDB [(none)]> show databases;  
+-----+  
| Database |  
+-----+  
| data     |  
| data_kuliah |  
| information_schema |  
| latihan_javadb |  
| mysql    |  
| performance_schema |  
| phpmyadmin |  
| test     |  
+-----+  
9 rows in set (0.000 sec)  
MariaDB [(none)]> use data;  
-> Nip varchar(20) not null,
```

```

Select Administrator: C:\Windows\system32\cmd.exe - mysql -u root

MariaDB [data]> create table proposalta(
  -> KodeLugasAkhir integer(5) not null,
  -> Nip varchar(15) not null,
  -> NipPembimbing1 varchar(15) not null,
  -> NipPembimbing2 varchar(15) not null,
  -> Judul varchar(50) not null,
  -> TanggalPengajuan date not null,
  -> Status varchar(15) not null,
  -> FileProposal varchar(45) not null,
  -> TanggalKeputusan date not null,
  -> Penilai varchar(15) not null,
  -> noIjazah varchar(45) not null,
  -> primary key (KodeLugasAkhir)
  -> );
Query OK, 0 rows affected (0.083 sec)

MariaDB [data]> create table admin(
  -> username varchar(15) not null,
  -> password varchar(50) not null,
  -> NamaLengkap varchar(100) not null,
  -> Email varchar(100) not null,
  -> Level varchar(50) not null,
  -> primary key (username)
  -> );
Query OK, 0 rows affected (0.085 sec)

MariaDB [data]> create table programstudi(
  -> KodeProgramStudi varchar(10) not null,
  -> NamaProgramStudi varchar(45) not null,
  -> primary key (KodeProgramStudi)
  -> );
Query OK, 0 rows affected (0.112 sec)

MariaDB [data]> create table alumni(
  -> idPekerjaan integer(5) not null,
  -> Nip varchar(10) not null,
  -> Pekerjaan varchar(45) not null,
  -> NamaPeusahaan varchar(100) not null,
  -> AlamatPerusahaan text,
  -> Kota varchar(45) not null,
  -> Bagian varchar(45) not null,
  -> jobdesk text,
  -> Jabatan varchar(45) not null,
  -> TanggalMasuk varchar(45) not null,
  -> primary key (idPekerjaan)
  -> );
Query OK, 0 rows affected (0.099 sec)

MariaDB [data]> create table pendidikan(
  -> idPendidikan integer(4) not null,
  -> idReff varchar(20) not null,
  -> NamaSekolah varchar(50) not null,
  -> Kota varchar(30) not null,
  -> Jenjang varchar(10) not null,
  -> TahunLulus varchar(4) not null,
  -> Gelar varchar(10) not null,
  -> TahunLulus varchar(4) not null,
  -> );

```

```

Select Administrator: C:\Windows\system32\cmd.exe - mysql -u root

  -> TahunLulus varchar(4) not null,
  -> Gelar varchar(10) not null,
  -> primary key (idPendidikan, idReff)
  -> );
Query OK, 0 rows affected (0.087 sec)

MariaDB [data]> create table alamat(
  -> idAlamat integer(5) not null,
  -> idReff varchar(20) not null,
  -> Alamat text,
  -> Kota varchar(30) not null,
  -> Provinsi varchar(30) not null,
  -> IdPost varchar(5) not null,
  -> noHp varchar(15) not null,
  -> Email varchar(75) not null,
  -> primary key (idAlamat, idReff)
  -> );
Query OK, 0 rows affected (0.028 sec)

MariaDB [data]> create table berita(
  -> idBerita integer(15) not null,
  -> idKategori integer(5) not null,
  -> Username varchar(50) not null,
  -> Judul varchar(100) not null,
  -> IsiBerita text,
  -> Gambar varchar(100) not null,
  -> Tanggal date not null,
  -> Jam time not null,
  -> Counter integer(5) not null,
  -> primary key (idBerita, idKategori, Username)
  -> );
Query OK, 0 rows affected (0.094 sec)

MariaDB [data]> create table bimbingan(
  -> id integer(5) not null,
  -> KodeLugasAkhir varchar(10)
  -> );
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 4

MariaDB [data]> create table bimbingan(
  -> id integer(5) not null,
  -> KodeLugasAkhir varchar(10) not null,
  -> Nip varchar(10) not null,
  -> Tanggal date not null,
  -> Konten Decimal(2,0) not null,
  -> Status varchar(10) not null,
  -> NamaFile varchar(100) not null,
  -> UkuranFile varchar(45) not null,
  -> Direktori varchar(45) not null,
  -> primary key (id, KodeLugasAkhir, Nip)
  -> );
Query OK, 0 rows affected (0.061 sec)

MariaDB [data]> alter table alamat add nip varchar(20) ;
Query OK, 0 rows affected (0.056 sec)
Records: 0 Duplicates: 0 Warnings: 0
Records: 0 Duplicates: 0 Warnings: 0

```

Kemudian untuk merelasikan tablenya dan menentukan foreign key atau primary key kita buat Syntax alter table dan masukan add ... agar ketika di cek di phpMyAdmin sudah sesuai dengan relasi dari suatu table ke table yang lain.

```

Administrator: C:\Windows\system32\cmd.exe - mysql -u root
Records: 0 Duplicates: 0 Warnings: 0
MariaDB [data]> Alter table pendidikan add foreign key(nin) references mahasiswa(nin);
Query OK, 0 rows affected (1.133 sec)
Records: 0 Duplicates: 0 Warnings: 0
MariaDB [data]> Alter table pendidikan add foreign key(nip) references dosen(nip);
Query OK, 0 rows affected (0.040 sec)
Records: 0 Duplicates: 0 Warnings: 0
MariaDB [data]> Alter table mahasiswa add foreign key(kodeprogramstudi) references programstudi(kodeprogramstudi);
Query OK, 0 rows affected (0.134 sec)
Records: 0 Duplicates: 0 Warnings: 0
MariaDB [data]> Alter table alumni add foreign key(nin) references mahasiswa(nin);
Query OK, 0 rows affected (0.046 sec)
Records: 0 Duplicates: 0 Warnings: 0
MariaDB [data]> alter table bimbingan add nin varchar(20);
Query OK, 0 rows affected (0.009 sec)
Records: 0 Duplicates: 0 Warnings: 0
MariaDB [data]> Alter table bimbingan add foreign key(nin) references mahasiswa(nin);
Query OK, 0 rows affected (0.091 sec)
Records: 0 Duplicates: 0 Warnings: 0
MariaDB [data]> Alter table bimbingan add foreign key(nip) references dosen(nip);
Query OK, 0 rows affected (0.042 sec)
Records: 0 Duplicates: 0 Warnings: 0
MariaDB [data]> alter table proposalt add nip varchar(20);
Query OK, 0 rows affected (0.002 sec)
Records: 0 Duplicates: 0 Warnings: 0
MariaDB [data]> Alter table proposalt add foreign key(nip) references dosen(nip);
Query OK, 0 rows affected (1.117 sec)
Records: 0 Duplicates: 0 Warnings: 0
MariaDB [data]> Alter table proposalt add foreign key(nin) references mahasiswa(nin);
Query OK, 0 rows affected (0.151 sec)
Records: 0 Duplicates: 0 Warnings: 0
MariaDB [data]> Alter table berita add foreign key(username) references admin(username);
Query OK, 0 rows affected (0.009 sec)
Records: 0 Duplicates: 0 Warnings: 0
MariaDB [data]> Alter table berita add foreign key(idKategori) references kategoriberita(idKategori);
Query OK, 0 rows affected (0.000 sec)
Records: 0 Duplicates: 0 Warnings: 0
MariaDB [data]> alter table proposalt add username varchar(15);
Query OK, 0 rows affected (0.002 sec)
Records: 0 Duplicates: 0 Warnings: 0
MariaDB [data]> Alter table proposalt add foreign key(username) references admin(username);
Query OK, 0 rows affected (0.102 sec)
Records: 0 Duplicates: 0 Warnings: 0

```

Selanjutnya buka phpMYAdmin dan klik database yang sudah kita buat tadi kemudian klik Lainnya dan klik Desainer , setelah itu kita akan melihat relasi pada suatu table ke table yang lain. Kemudian kita bisa meletakkan pada bagian mana table yang berelasi dengan table sesuai dengan kebutuhan yang akan dibuat.

