LAPORAN TUGAS BESAR

MERANCANG DATABASE DENGAN MENGGUNAKAN BAHASA PEMROGRAMAN SQL



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- 1. Membuka xampp dan mengaktifkan mysql dan apache. Lalu klik window+r untuk membuka Command Prompt.
- 2. Mengikuti langkah sebagai berikut :

```
Microsoft Windows [Version 10.0.18362.900]
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C:\Users\hp>cd/xampp/mysql/bin

C:\xampp\mysql\bin>mysql -u root
Welcome to the MariaDB monitor. Commands end with ; or \g.
Your MariaDB connection id is 42
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)]> use mysql;
Database changed

MariaDB [mysql]> create database db_tugas;
Query OK, 1 row affected (0.002 sec)
```

Setelah mysql terhubung dan sudah membuat tabel.

3. Setelah membuat tabel, kita akan membuat 11 kolom.

• Mahasiswa

```
MariaDB [mysql]> use db_tugas;
Database changed
MariaDB [db tugas]> create table mahasiswa
    -> (nim varchar(20) primary key,
    -> nama varchar(45),
    -> tempatLahir varchar(30),
    -> tanggalLahir date,
    -> agama varchar(10),
   -> jenisKelamin varchar (10),
-> kodePemrogramStudi varchar(10),
   -> jejang varchar(4),
   -> angkatan varchar(5),
   -> tanggalMasuk date,
   -> namaUser varchar(15),
    -> sandiUser varchar(45),
    -> email varchar(75),
    -> biaya int(10),
    -> status varchar(20)
    -> );
Query OK, 0 rows affected (0.288 sec)
MariaDB [db_tugas]> show tables;
 Tables_in_db_tugas |
  -----+
 mahasiswa
1 row in set (0.001 sec)
```

MariaDB [db_tugas]> desc mahasiswa;							
Field	Type	Null	Key	Default	Extra		
nim idPendidikan kodeProgramStudi idAlamat nama tempatLahir tanggalLahir agama jenisKelamin jenjang angkatan tanggalMasuk namaUser sandiUser email	varchar(20) int(11) varchar(10) int(11) varchar(45) varchar(30) date varchar(10) varchar(10) varchar(4) varchar(5) date varchar(5) date varchar(15) varchar(75)	NO	Key PRI MUL MUL MUL 	NULL NULL	Extra		
biaya status	int(10) varchar(20)	YES YES		NULL NULL	i i		
++ 17 rows in set (0.060 sec)							

• Dosen

```
MariaDB [db_tugas]> create table dosen
-> (nip varchar(20) primary key,
-> nama varchar(45),
-> tempatLahir varchar(30),
-> tanggalLahir date,
-> agama varchar(20),
-> jenisKelamin varchar(4),
-> pendidikanTerakhir varchar(4),
-> namaUser varchar(15),
-> sandiUser varchar(45),
-> email varchar(75)
-> );

Query OK, 0 rows affected (0.454 sec)
```

Field	Туре	Null	Key	Default	Extra
nip idPendidikan idAlamat nama tempatLahir tanggalLahir agama jenisKelamin status pendidikanTerakhir	varchar(20) int(10) int(10) varchar(45) varchar(30) date varchar(20) varchar(10) varchar(4) varchar(4)	NO N	PRI MUL MUL	NULL NULL NULL NULL NULL NULL NULL NULL	
sandiUser email	varchar(45) varchar(75)	YES YES		NULL NULL	

• Alumni

```
MariaDB [db tugas]> create table alumni
    -> (idPekerjaan int(5) primary key,
    -> nim varchar(10),
   -> pekerjaan varchar(45),
    -> namaPerusahaan varchar(100),
    -> alamatPerusahaan text,
    -> kota varchar(45),
    -> bagian varchar(45),
   -> jobdesk text,
-> jabatan varchar(45),
    -> tanggalMasuk varchar(45)
Query OK, 0 rows affected (0.226 sec)
MariaDB [db_tugas]> show tables;
 Tables_in_db_tugas |
 alumni
 dosen
 mahasiswa
 proposalta
4 rows in set (0.001 sec)
MariaDB [db_tugas]> desc alumni;
                   Type
                                  | Null | Key | Default | Extra
 Field
                                         | PRI | NULL
 idPekerjaan
                   | int(5)
                                   NO
                   varchar(10)
                                    YES
                                                 NULL
 nim
                   varchar(45)
varchar(100)
                                    YES
 pekerjaan
                                                 NULL
                                    YES
 namaPerusahaan
                                                 NULL
 alamatPerusahaan | text
                                    YES
                                                 NULL
  kota
                   varchar(45)
varchar(45)
                                    YES
                                                 NULL
  bagian
                                    YES
                                                 NULL
                                                 NULL
  jobdesk
                   text
                                    YES
  jabatan
                   varchar(45)
                                    YES
                                                 NULL
  tanggalMasuk | varchar(45)
                                   YES
                                                NULL
10 rows in set (0.245 sec)
MariaDB [db tugas]> desc alumni;
                                   | Null | Key | Default | Extra |
 Field
                   Type
 idPekerjaan
                    int(5)
                                    NO
                                           PRI
                                                 NULL
  nim
                     varchar(10)
                                    YES
                                           MUL
                                                  NULL
                     varchar(45)
  pekerjaan
                                    YES
                                                  NULL
  namaPerusahaan
                     varchar(100)
                                    YES
                                                  NULL
                                    YES
  alamatPerusahaan |
                     text
                                                  NULL
                     varchar(45)
                                    YES
                                                  NULL
  kota
  bagian
                     varchar(45)
                                    YES
                                                  NULL
  jobdesk
                                    YES
                                                  NULL
                     text
                                    YES
                                                  NULL
  jabatan
                     varchar(45)
  tanggalMasuk
                  | varchar(45)
                                   YES
                                                 NULL
10 rows in set (0.059 sec)
```

```
Bimbingan
MariaDB [db_tugas]> create table bimbingan
    -> (id int(5) primary key,
    -> kodeTugasAkhir varchar(10),
    -> nip varchar(10),
    -> tanggal date,
   -> koten decimal(2),
   -> status varchar(10),
   -> namaFile varchar(100),
   -> ukuranFile varchar(15),
    -> direktori varchar(45)
    -> );
Query OK, 0 rows affected (0.492 sec)
MariaDB [db tugas]> show tables
 Tables_in_db_tugas
  alumni
 bimbingan
 dosen
 mahasiswa
 programstudi
 proposalta
6 rows in set (0.001 sec)
MariaDB [db_tugas]> desc bimbingan;
 Field
                  Type
                                 Null | Key | Default | Extra
 id
                   int(5)
                                  NO
                                         PRI
                                               NULL
                   varchar(10)
                                  YES
  kodeTugasAkhir
                                               NULL
 nip
                   varchar(10)
                                  YES
                                               NULL
  tanggal
                  date
                                  YES
                                               NULL
  koten
                  decimal(2,0)
                                  YES
                                               NULL
  status
                  varchar(10)
                                  YES
                                               NULL
  namaFile
                  varchar(100)
                                  YES
                                               NULL
  ukuranFile
                 varchar(15)
                                  YES
                                               NULL
 direktori
                 varchar(45)
                                  YES
                                               NULL
 rows in set (0.013 sec)
MariaDB [db_tugas]> desc bimbingan;
 Field
                             | Null | Key | Default | Extra |
             | Type
 id
              int(5)
                              NO
                                     PRI |
                                           NULL
  nim
              varchar(10)
                              YES
                                     MUL
                                           NULL
             | varchar(10)
| date
  nip
                              YES
                                     MUL
                                           NULL
                              YES
  tanggal
                                           NULL
             decimal(2,0)
  koten
                              YES
                                           NULL
  status
             varchar(10)
                              YES
                                           MELL
  namaFile
             varchar(100)
                              YES
                                           NULL
  ukuranFile
              varchar(15)
                              YES
                                           NULL
  direktori
             varchar(45)
                              YES
                                           NULL
```

rows in set (0.078 sec)

• Programstudi

Proposalta

```
MariaDB [db_tugas]> create table proposalta
    -> (kodeTugasAkhir int(5) primary key,
    -> nim varchar(15),
   -> nipPembimbing1 varchar(15),
    -> nipPembimbing2 varchar(15),
   -> judul varchar(50),
-> tanggalPengajuan date,
    -> status varchar(15),
    -> fileProposal varchar(45),
    -> tanggalKeputusan date,
    -> penilai varchar(15),
    -> noIjasah varchar(45)
    -> );
Query OK, 0 rows affected (0.218 sec)
MariaDB [db_tugas]> show tables
 Tables_in_db_tugas |
 mahasiswa
 proposalta
3 rows in set (0.001 sec)
MariaDB [db_tugas]> desc proposalta;
 Field
                                  | Null | Key | Default | Extra
                   Type
 kodeTugasAkhir
                     int(5)
                                   NO
                                          PRI
                                                 NULL
                                   YES
                                                 NULL
                     varchar(15)
 nipPembimbing1
                     varchar(15)
                                    YES
                                                 NULL
 nipPembimbing2
                     varchar(15)
                                    YES
                                                 NULL
 judul
                     varchar(50)
                                    YES
                                                 NULL
 tanggalPengajuan
                                   YES
                                                 NULL
                     date
                     varchar(15)
 status
                                    YES
                                                 NULL
                     varchar(45)
 fileProposal
                                    YES
                                                 NULL
 tanggalKeputusan
                    date
                                   YES
                                                 NULL
 penilai
                    varchar(15)
                                   YES
                                                 NULL
 noIjasah
                    varchar(45)
                                   YES
                                                 NULL
11 rows in set (0.012 sec)
MariaDB [db_tugas]> desc proposalta;
 Field
                                  | Null | Key | Default | Extra |
                   Type
 kodeTugasAkhir
                    int(5)
                                           PRI
                                    NO
                                                 NULL
                     varchar(15)
                                    YES
 username
                                           MUI
                                                 NULL
 nip
                     varchar(20)
                                    YES
                                           MUL
                                                 NULL
 nim
                     varchar(20)
                                    YES
                                           MUL
                                                 NULL
 nipPembimbing1
                     varchar(15)
                                    YES
                                                 NULL
                     varchar(15)
 nipPembimbing2
                                    YES
                                                 NULL
 judul
                     varchar(50)
                                    YES
                                                 NULL
 tanggalPengajuan
                     date
                                    YES
                                                 NULL
                     varchar(15)
                                    YES
                                                 NULL
 status
  fileProposal
                     varchar(45)
                                    YES
                                                 NULL
                     date
 tanggalKeputusan
                                    YES
                                                 NULL
 penilai
                     varchar(15)
                                    YES
                                                 NULL
 noIjasah
                   varchar(45)
                                  YES
                                                 NULL
l3 rows in set (0.042 sec)
```

• Admin

```
MariaDB [db_tugas]> create table admin
    -> (username varchar(15) primary key,
    -> password varchar(50),
    -> nama_lengkap varchar(100),
   -> email varchar(100),
    -> level varchar(50)
Query OK, 0 rows affected (0.205 sec)
MariaDB [db_tugas]> show tables
 Tables_in_db_tugas |
  admin
  alumni
 bimbingan
 dosen
 mahasiswa
 programstudi
 proposalta
 rows in set (0.001 sec)
MariaDB [db_tugas]> desc admin
 Field
              Type
                               | Null | Key | Default | Extra
                               NO PRI NULL
               varchar(15)
 username
 password | varchar(50) | YES
nama_lengkap | varchar(100) | YES
                               YES
                                             NULL
                                            NULL
 email
               | varchar(100) | YES
                                             NULL
 level
               varchar(50)
                               YES
                                            NULL
5 rows in set (0.064 sec)
MariaDB [db_tugas]> desc admin;
             Type
                         | Null | Key | Default | Extra
 username
password
               | varchar(15)
| varchar(50)
                                NO
                                       PRI | NULL
                                YES
                                             NULL
 nama_lengkap | varchar(100)
email | varchar(100)
                               YES
                                             NULL
                                YES
                                             NULL
  level
              varchar(50)
                               YES
                                            NULL
 rows in set (0.087 sec)
```

• Berita

```
MariaDB [db_tugas]> create table berita
    -> (idBerita int(5) primary key,
    -> idKategori int(5),
   -> username varchar(100),
   -> judul varchar(100),
-> isi_berita text,
   -> gambar varchar(100),
   -> hari varchar(20),
    -> tanggal date,
   -> jam time,
    -> counter int(5)
    -> );
Query OK, 0 rows affected (0.165 sec)
MariaDB [db_tugas]> show tables;
 Tables_in_db_tugas |
 admin
 alumni
 berita
 bimbingan
 dosen
 mahasiswa
 programstudi
 proposalta
8 rows in set (0.001 sec)
```

MariaDB [db_tugas]> desc berita -> ;							
Field	Туре	Null	Key	Default	Extra		
idBerita idKategori username judul isi_berita gambar hari tanggal jam counter	int(5) int(5) varchar(100) varchar(100) text varchar(100) varchar(20) date time int(5)	NO YES	PRI MUL MUL	NULL NULL NULL NULL NULL NULL NULL NULL			
10 rows in set (0.075 sec)							

• Kategoriberita

```
MariaDB [db_tugas]> create table kategoriberita
   -> (idKategori int primary key,
   -> namaKategori varchar(45)
   -> );
Query OK, 0 rows affected (0.197 sec)
MariaDB [db_tugas]> show tables;
Tables_in_db_tugas
 admin
 alumni
 berita
 bimbingan
 dosen
 kategoriberita
 mahasiswa
 programstudi
 proposalta
9 rows in set (0.001 sec)
MariaDB [db_tugas]> desc kategoriberita;
 Field
         | Type
                         | Null | Key | Default | Extra |
 idKategori | int(11)
                            NO
                                   PRI | NULL
 namaKategori | varchar(45) | YES
2 rows in set (0.166 sec)
```

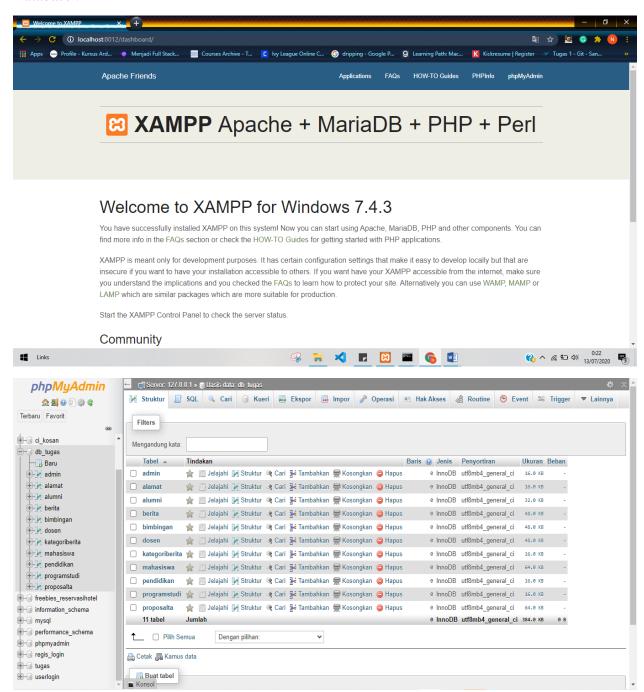
Pendidikan

```
MariaDB [db_tugas]> create table pendidikan
-> (idPendidikan int(4) primary key,
     -> idReff varchar(20),
    -> namaSekolah varchar(50),
    -> kota varchar(30),
    -> jenjang varchar(10),
-> tahunLulus varchar(4),
    -> gelar varchar(10)
-> );
Query OK, 0 rows affected (0.262 sec)
MariaDB [db_tugas]> show tables;
| Tables_in_db_tugas |
  admin
  alumni
  berita
  bimbingan
  dosen
  kategoriberita
  mahasiswa
  pendidikan
  programstudi
  proposalta
10 rows in set (0.001 sec)
MariaDB [db_tugas]> desc pendidikan;
  Field
                  | Type
                                   | Null | Key | Default | Extra
  idPendidikan | int(4)
idReff | varchar(20)
namaSekolah | varchar(50)
                                     NO
                                             PRI |
                                                    NULL
                                     YES
                                                     NULL
                                     YES
                                                     NULL
  kota
jenjang
tahunLulus
gelar
  kota
                  varchar(30)
                                     YES
                                                     NULL
                  varchar(10)
                                     YES
                                                     NULL
                                     YES
                                                     NULL
  gelar
                  | varchar(10)
                                     YES
                                                     NULL
7 rows in set (0.081 sec)
```

• Alamat

```
MariaDB [db_tugas]> create table alamat
    -> (idAlamat int(5) primary key,
    -> idReff varchar(20),
   -> alamat text,
   -> kota varchar(30),
   -> propinsi varchar(30),
   -> kdpost varchar(5),
   -> noTelp varchar(15),
   -> noHP varchar(15),
    -> email varchar(75)
    -> );
Query OK, 0 rows affected (0.330 sec)
MariaDB [db_tugas]> show tables;
 Tables_in_db_tugas
 admin
 alamat
 alumni
  berita
 bimbingan
  dosen
  kategoriberita
 mahasiswa
 pendidikan
 programstudi
 proposalta
11 rows in set (0.001 sec)
MariaDB [db_tugas]> desc alamat;
 Field
         Type
                         | Null | Key | Default | Extra
  idAlamat | int(5)
                          NO
                                  PRI |
                                        NULL
  alamat
                          YES
           text
                                        NULL
  kota | varchar(30) | YES
propinsi | varchar(30) | YES
                                        NULL
                                        NULL
                          YES
  kdpost | varchar(5)
                                        NULL
  noTelp
           varchar(15)
                          YES
                                        NULL
  noHP
           varchar(15)
                         YES
                                        NULL
  email
           | varchar(75) | YES
                                        NULL
 rows in set (0.061 sec)
```

Database:



Foreign key:

