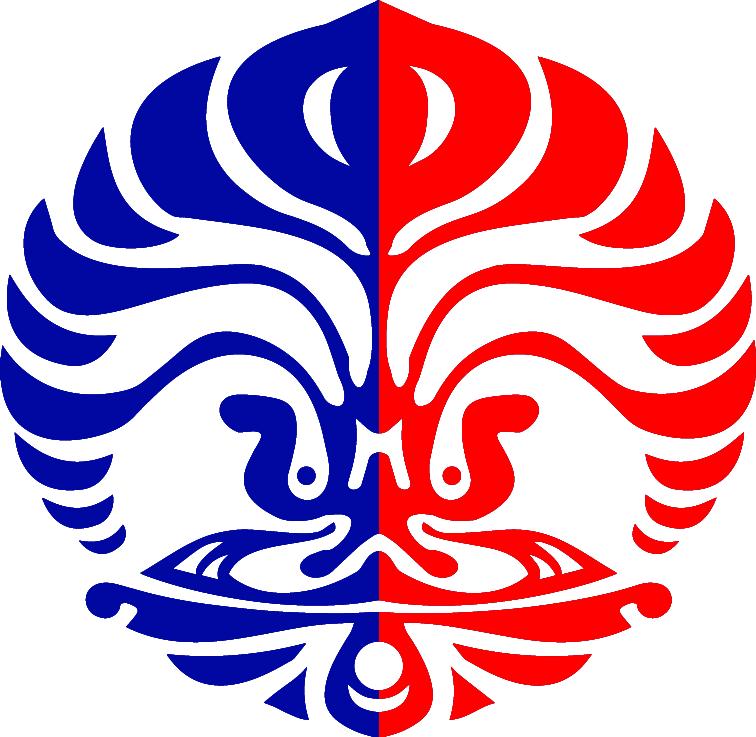
**TUGAS KELOMPOK BASIS DATA**

**STUDI KASUS SIRIMA**



**KELOMPOK A1**

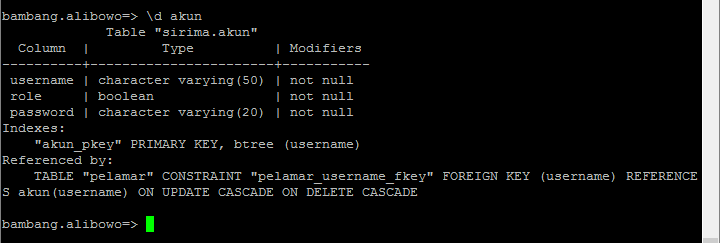
**FAKULTAS ILMU KOMPUTER**

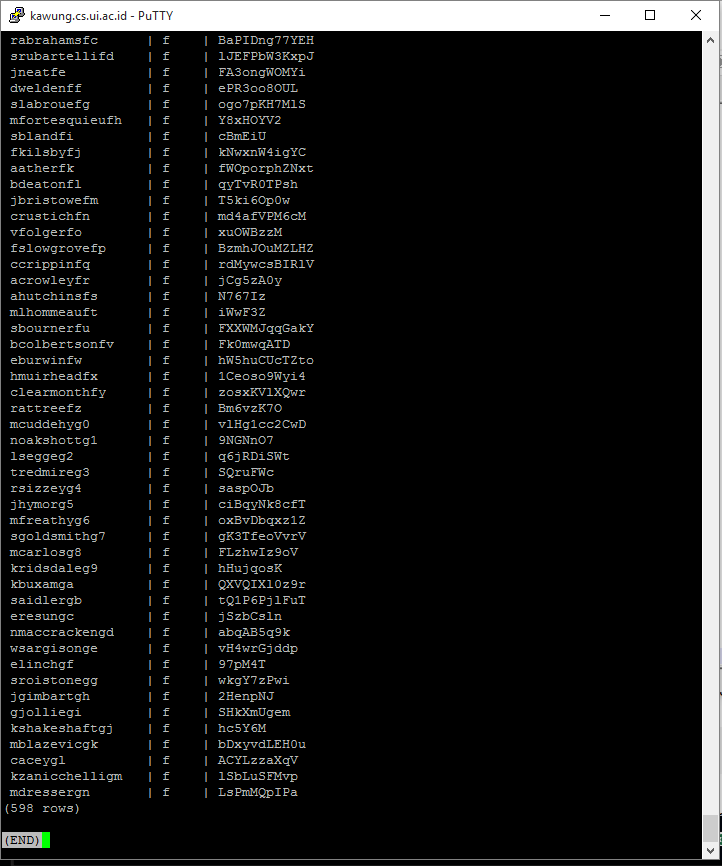
**DEPOK 29 APRIL 2017**

1. **TAHAP PERTAMA IMPLEMENTASI BASIS DATA SIRIMA (CREATE SCHEMA, TABLE, TRIGGER/STORED PROCEDURE, DAN MENGISI DATA TIAP TABLE)**

* **tabel akun**

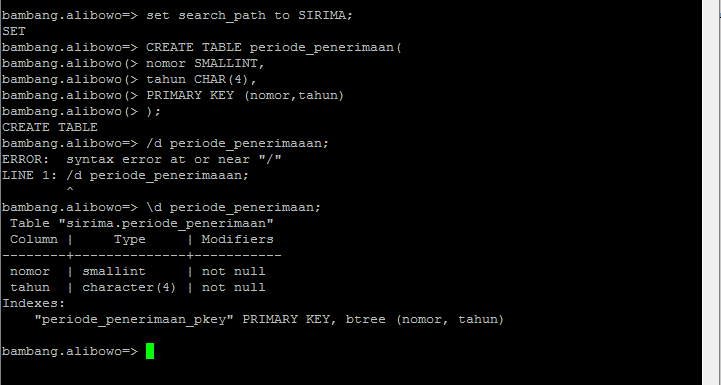
CREATE TABLE akun(  
username VARCHAR(50),  
role BOOLEAN NOT NULL,  
password VARCHAR(20) NOT NULL,  
PRIMARY KEY (username)   
);

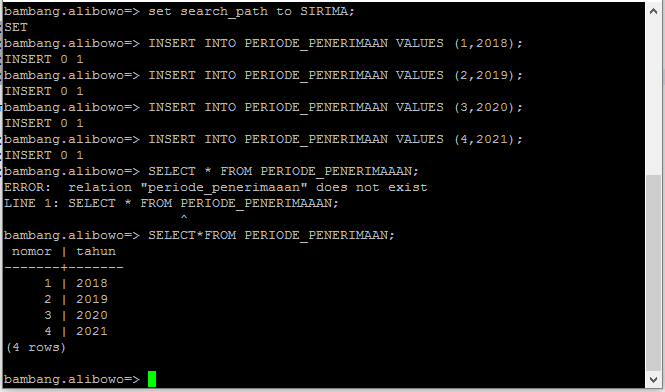




* **tabel periode\_penerimaan**

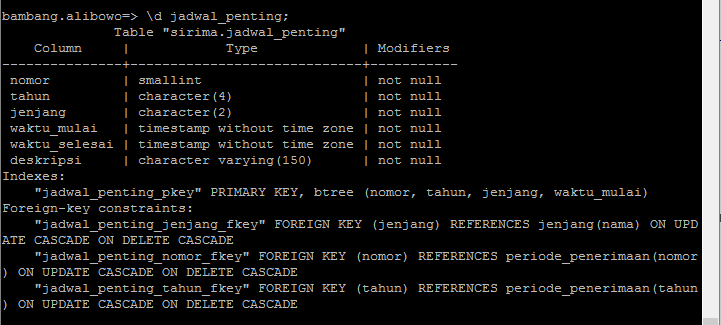
**CREATE TABLE periode\_penerimaan(  
nomor SMALLINT UNIQUE,  
tahun CHAR(4)UNIQUE,  
PRIMARY KEY (nomor,tahun)  
);**

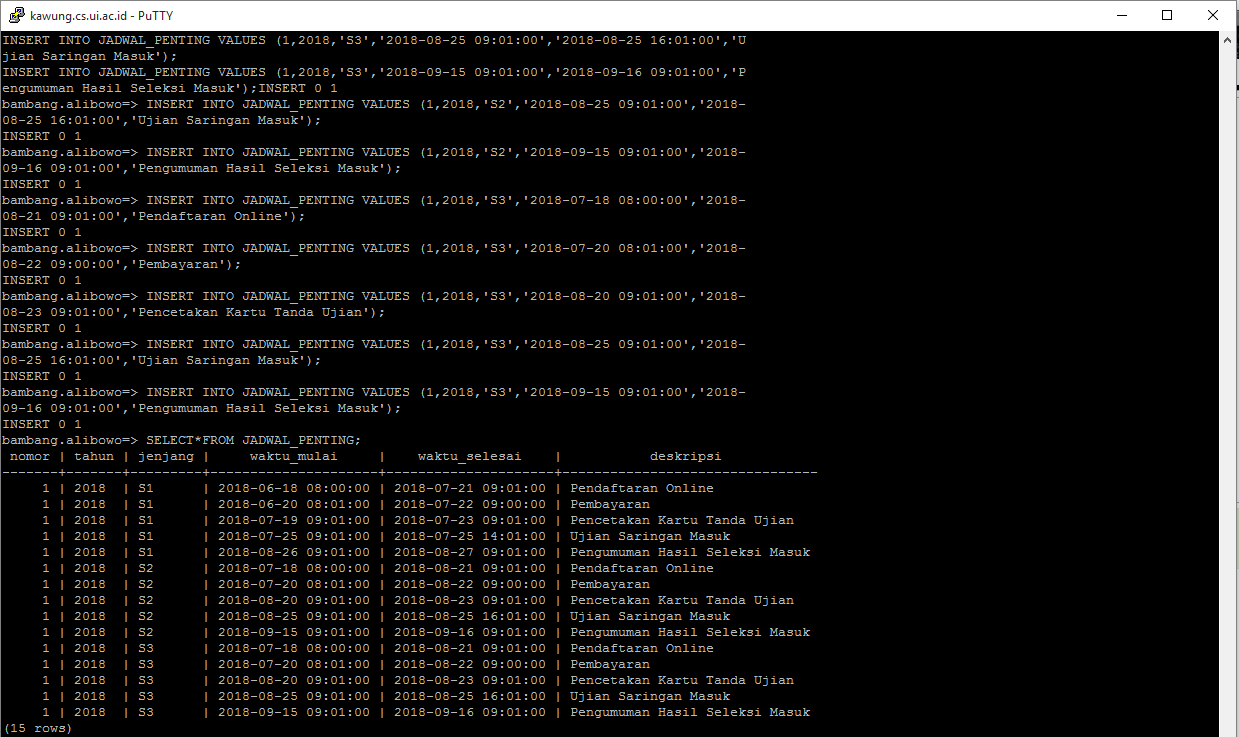




* **tabel jadwal\_penting**

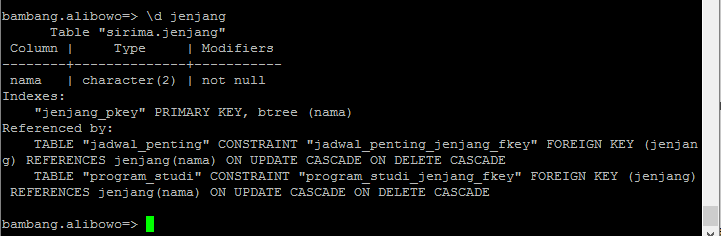
**nomor SMALLINT,  
tahun CHAR(4),  
jenjang CHAR(2),  
waktu\_mulai TIMESTAMP,  
waktu\_selesai TIMESTAMP NOT NULL,  
deskripsi VARCHAR(150) NOT NULL,  
PRIMARY KEY (nomor,tahun,jenjang,waktu\_mulai),  
FOREIGN KEY (nomor) REFERENCES periode\_penerimaan(nomor) ON UPDATE CASCADE ON DELETE CASCADE,  
FOREIGN KEY (tahun) REFERENCES periode\_penerimaan(tahun) ON UPDATE CASCADE ON DELETE CASCADE,  
FOREIGN KEY (jenjang) REFERENCES jenjang(nama) ON UPDATE CASCADE ON DELETE CASCADE  
);**

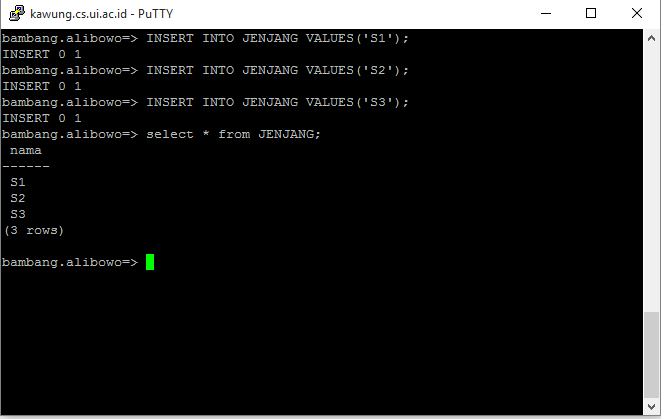




* **tabel jenjang**

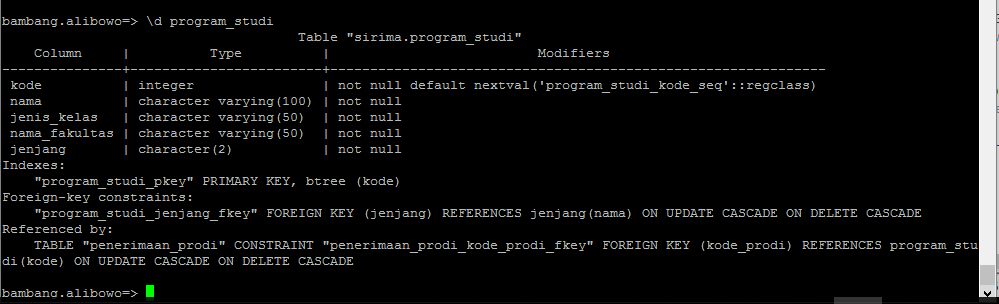
**CREATE TABLE jenjang(  
nama CHAR(2),  
PRIMARY KEY (nama)  
);**

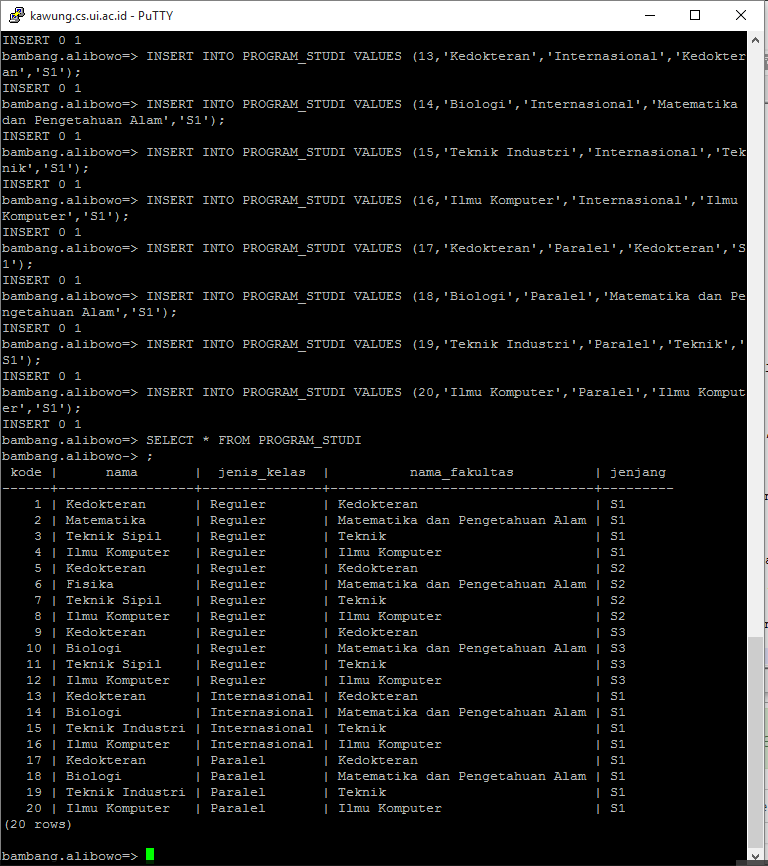




* **tabel program\_studi**

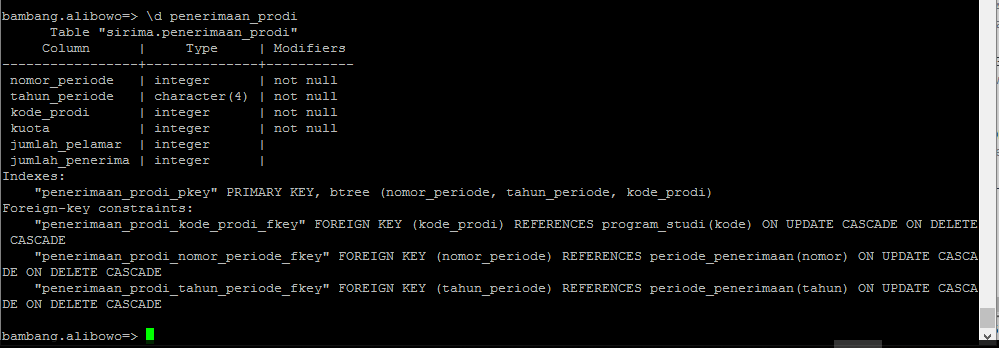
**CREATE TABLE program\_studi(  
kode SERIAL,  
nama VARCHAR(100) NOT NULL,  
jenis\_kelas VARCHAR(50) NOT NULL,  
nama\_fakultas VARCHAR(50) NOT NULL,  
jenjang CHAR(2) NOT NULL,  
PRIMARY KEY (kode),  
FOREIGN KEY (jenjang) REFERENCES jenjang(nama) ON UPDATE CASCADE ON DELETE CASCADE  
);**

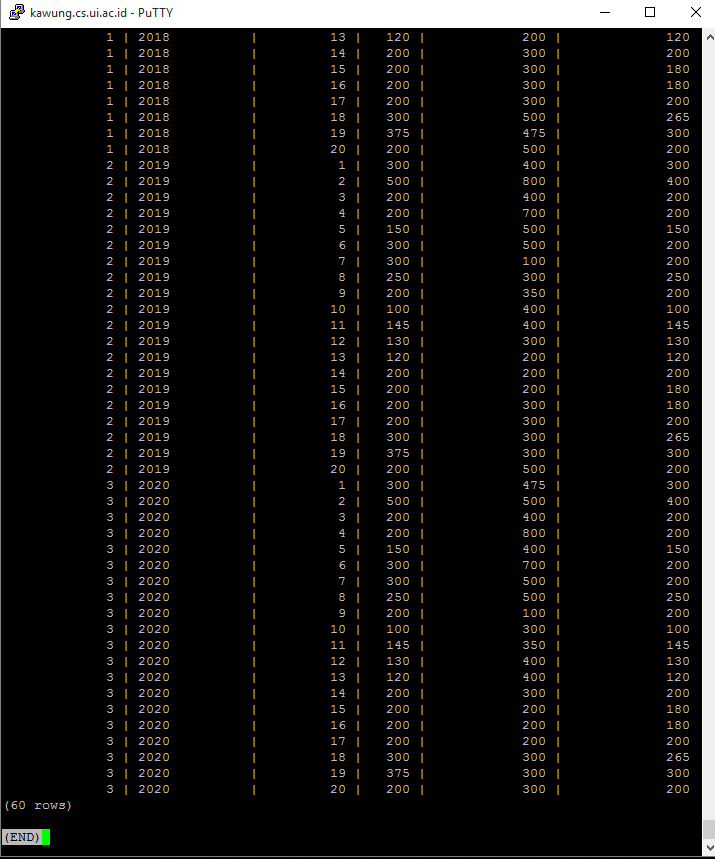




* **tabel penerimaan\_prodi**

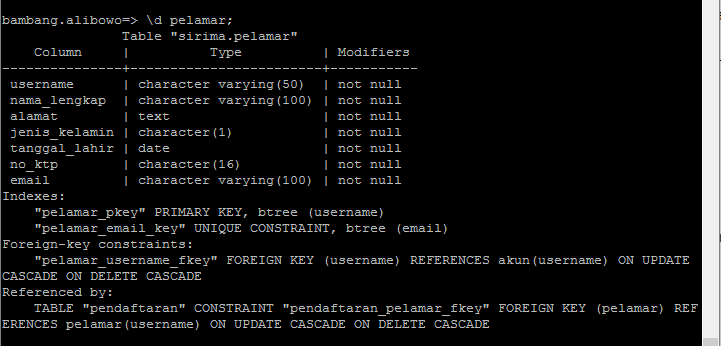
**CREATE TABLE penerimaan\_prodi(  
nomor\_periode INT,  
tahun\_periode CHAR(4),  
kode\_prodi INT,  
kuota INT NOT NULL,  
jumlah\_pelamar INT,  
jumlah\_penerima INT,  
PRIMARY KEY (nomor\_periode,tahun\_periode,kode\_prodi),  
FOREIGN KEY (nomor\_periode) REFERENCES periode\_penerimaan(nomor) ON UPDATE CASCADE ON DELETE CASCADE,  
FOREIGN KEY (tahun\_periode) REFERENCES periode\_penerimaan(tahun) ON UPDATE CASCADE ON DELETE CASCADE,  
FOREIGN KEY (kode\_prodi) REFERENCES program\_studi(kode) ON UPDATE CASCADE ON DELETE CASCADE  
);**

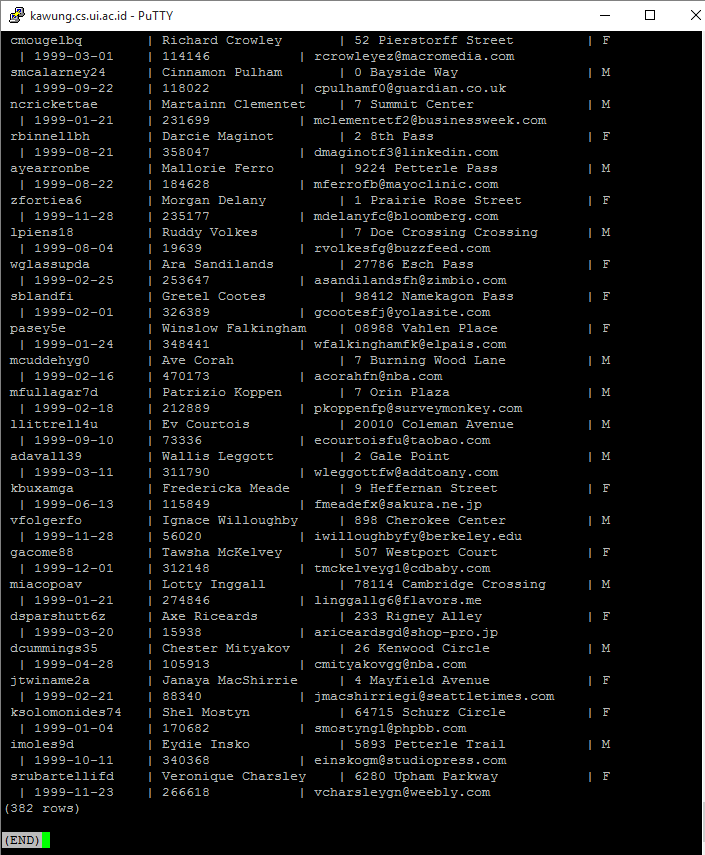




* **tabel pelamar**

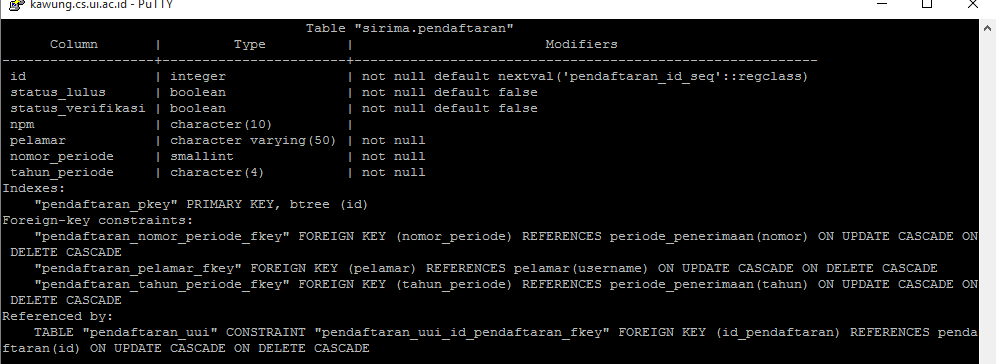
**CREATE TABLE pelamar(  
username VARCHAR(50),  
nama\_lengkap VARCHAR(100) NOT NULL,  
alamat TEXT NOT NULL,  
jenis\_kelamin CHAR(1) NOT NULL,  
tanggal\_lahir DATE NOT NULL,  
no\_ktp CHAR(16) NOT NULL,  
email VARCHAR(100) UNIQUE NOT NULL,  
PRIMARY KEY (username),  
FOREIGN KEY (username) REFERENCES akun(username) ON UPDATE CASCADE ON DELETE CASCADE  
);**

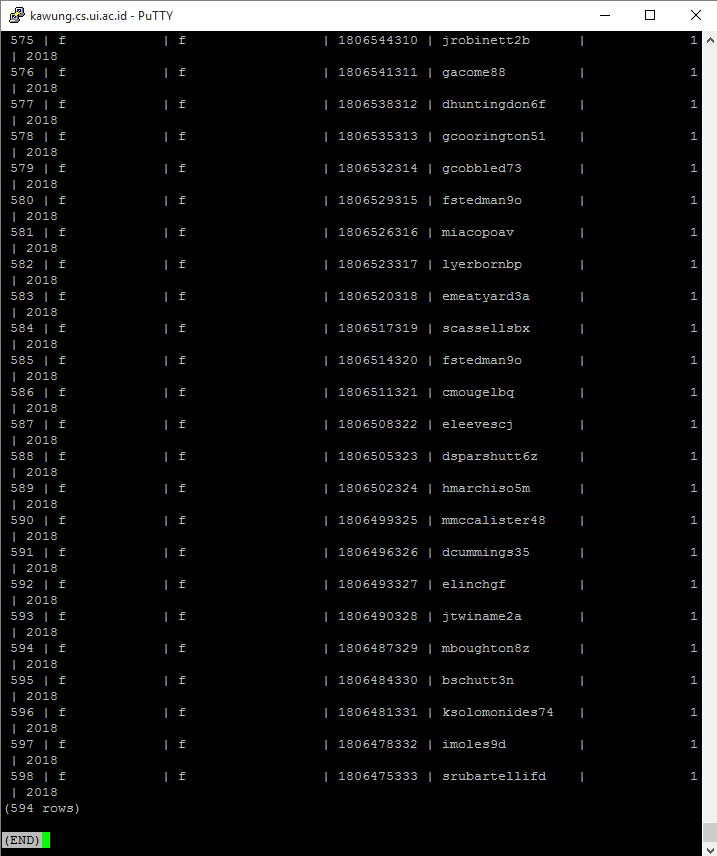




* **tabel pendaftaran**

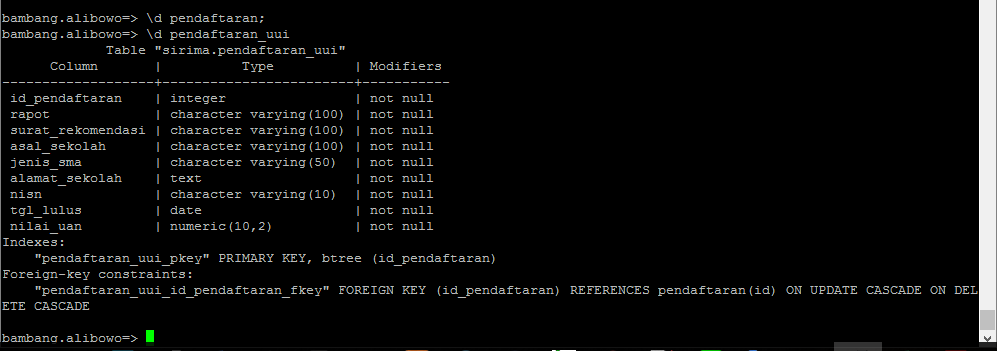
**CREATE TABLE pendaftaran(  
id SERIAL,  
status\_lulus BOOLEAN DEFAULT FALSE NOT NULL,  
status\_verifikasi BOOLEAN DEFAULT FALSE NOT NULL,  
npm CHAR(10),  
pelamar VARCHAR(50) NOT NULL,  
nomor\_periode SMALLINT NOT NULL,  
tahun\_periode CHAR(4) NOT NULL,  
PRIMARY KEY (id),  
FOREIGN KEY (pelamar) REFERENCES pelamar(username) ON UPDATE CASCADE ON DELETE CASCADE,  
FOREIGN KEY (nomor\_periode) REFERENCES periode\_penerimaan(nomor) ON UPDATE CASCADE ON DELETE CASCADE,  
FOREIGN KEY (tahun\_periode) REFERENCES periode\_penerimaan(tahun) ON UPDATE CASCADE ON DELETE CASCADE  
);**

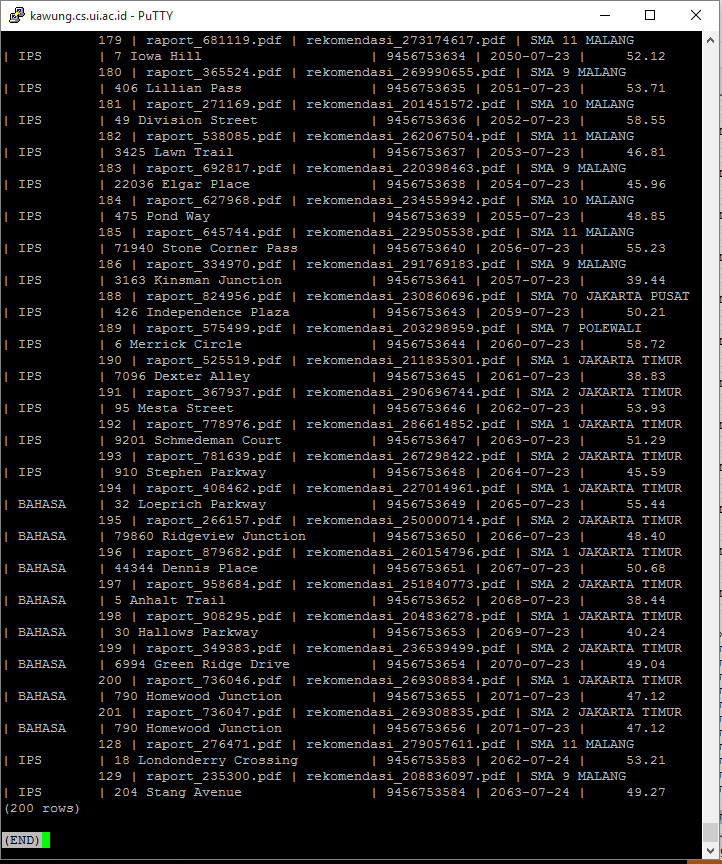




* **tabel pendaftaran\_UUI**

**CREATE TABLE pendaftaran\_uui(  
id\_pendaftaran INT,  
rapot VARCHAR(100) NOT NULL,  
surat\_rekomendasi VARCHAR(100) NOT NULL,  
asal\_sekolah VARCHAR(100) NOT NULL,  
jenis\_sma VARCHAR(50) NOT NULL,  
alamat\_sekolah TEXT NOT NULL,  
nisn VARCHAR(10) NOT NULL,  
tgl\_lulus DATE NOT NULL,  
nilai\_uan NUMERIC(10,2) NOT NULL,  
PRIMARY KEY (id\_pendaftaran),  
FOREIGN KEY (id\_pendaftaran) REFERENCES pendaftaran(id) ON UPDATE CASCADE ON DELETE CASCADE  
);**

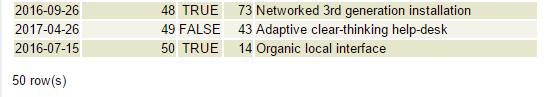


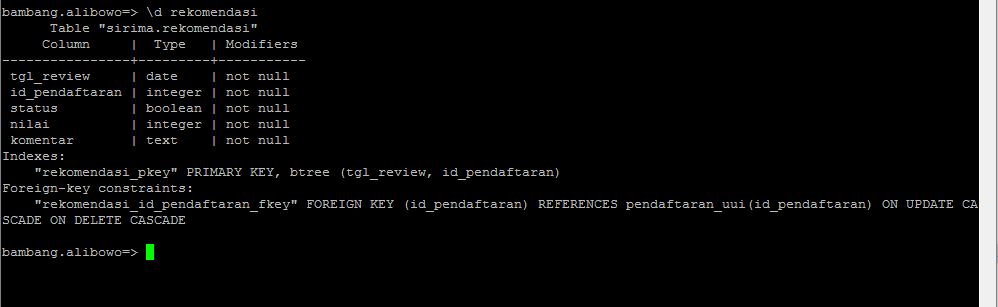


* **tabel rekomendasi**

**CREATE TABLE rekomendasi(  
 tgl\_review DATE,  
 id\_pendaftaran INT,  
 status BOOLEAN NOT NULL,  
 nilai INT NOT NULL,  
 komentar TEXT NOT NULL,  
 PRIMARY KEY (tgl\_review,id\_pendaftaran),  
 FOREIGN KEY (id\_pendaftaran) REFERENCES pendaftaran\_uui(id\_pendaftaran) ON UPDATE CASCADE ON DELETE CASCADE  
);**



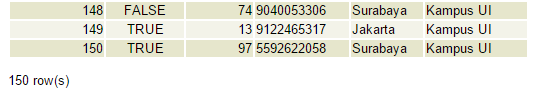




**- tabel pendaftaran\_semas**

**CREATE TABLE pendaftaran\_semas(  
 id\_pendaftaran INT,  
 status\_hadir BOOLEAN NOT NULL,  
 nilai\_ujian INT NOT NULL,  
 no\_kartu\_ujian CHAR(10) NOT NULL,  
 lokasi\_kota VARCHAR(100) NOT NULL,  
 lokasi\_tempat VARCHAR(150) NOT NULL,  
 PRIMARY KEY (id\_pendaftaran),  
 FOREIGN KEY (id\_pendaftaran) REFERENCES pendaftaran(id) ON UPDATE CASCADE ON DELETE CASCADE,  
 FOREIGN KEY (lokasi\_kota) REFERENCES lokasi\_ujian(kota) ON UPDATE CASCADE ON DELETE CASCADE,  
 FOREIGN KEY (lokasi\_tempat) REFERENCES lokasi\_ujian (tempat) ON UPDATE CASCADE ON DELETE CASCADE  
);**

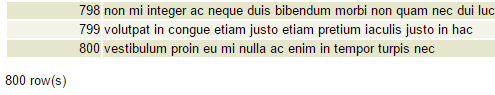




**- tabel pendaftaran\_semas\_sarjana**

**CREATE TABLE pendaftaran\_semas\_sarjana(  
 id\_pendaftaran INT,  
 asal\_sekolah VARCHAR(100) NOT NULL,  
 jenis\_sma VARCHAR(50) NOT NULL,  
 alamat\_sekolah TEXT NOT NULL,  
 nisn VARCHAR(10) NOT NULL,  
 tgl\_lulus DATE NOT NULL,  
 nilai\_uan NUMERIC(10,2) NOT NULL,  
 PRIMARY KEY (id\_pendaftaran),  
 FOREIGN KEY (id\_pendaftaran) REFERENCES pendaftaran\_semas(id\_pendaftaran) ON UPDATE CASCADE ON DELETE CASCADE  
);**

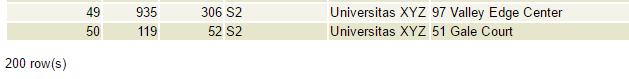




**- tabel pendaftaran\_semas\_pascasarjana**

**CREATE TABLE pendaftaran\_semas\_pascasarjana(  
 id\_pendaftaran INT,  
 nilai\_tpa INT NOT NULL,  
 nilai\_toefl INT NOT NULL,  
 jenjang\_terakhir CHAR(2) NOT NULL,  
 asal\_univ VARCHAR(100) NOT NULL,  
 alamat\_univ TEXT NOT NULL,  
 prodi\_terakhir VARCHAR(100) NOT NULL,  
 nilai\_ipk NUMERIC(10,2) NOT NULL,  
 no\_ijazah VARCHAR(50) NOT NULL,  
 tgl\_lulus DATE NOT NULL,  
 jenjang CHAR(2) NOT NULL,  
 nama\_rekomender VARCHAR(100),  
 prop\_penelitian VARCHAR(100),  
 PRIMARY KEY (id\_pendaftaran),  
 FOREIGN KEY (id\_pendaftaran) REFERENCES pendaftaran\_semas(id\_pendaftaran) ON UPDATE CASCADE ON DELETE CASCADE,  
 FOREIGN KEY (jenjang\_terakhir) REFERENCES jenjang(nama) ON UPDATE CASCADE ON DELETE CASCADE,  
 FOREIGN KEY (jenjang) REFERENCES jenjang(nama) ON UPDATE CASCADE ON DELETE CASCADE  
);**



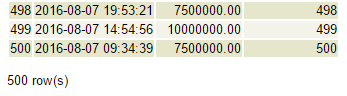


\*150 untuk S2, 50 untuk S3

**- tabel pembayaran**

**CREATE TABLE pembayaran(  
 id SERIAL,  
 waktu\_bayar TIMESTAMP NOT NULL,  
 jumlah\_bayar NUMERIC(10,2) NOT NULL,  
 id\_pendaftaran INT NOT NULL,  
 PRIMARY KEY (id),  
 FOREIGN KEY (id\_pendaftaran) REFERENCES pendaftaran\_semas(id\_pendaftaran) ON UPDATE CASCADE ON DELETE CASCADE  
);**

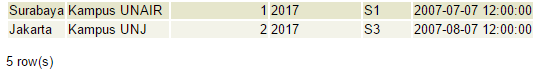




**- tabel lokasi\_ujian**

**CREATE TABLE lokasi\_ujian(  
 kota VARCHAR(100),  
 tempat VARCHAR(150),  
 nomor\_periode SMALLINT NOT NULL,  
 tahun\_periode CHAR(4) NOT NULL,  
 jenjang CHAR(2) NOT NULL,  
 waktu\_awal TIMESTAMP NOT NULL,  
 PRIMARY KEY (kota,tempat),  
 FOREIGN KEY (nomor\_periode) REFERENCES jadwal\_penting(nomor) ON UPDATE CASCADE ON DELETE CASCADE,  
 FOREIGN KEY (tahun\_periode) REFERENCES jadwal\_penting(tahun) ON UPDATE CASCADE ON DELETE CASCADE,  
 FOREIGN KEY (jenjang) REFERENCES jadwal\_penting(jenjang) ON UPDATE CASCADE ON DELETE CASCADE,  
 FOREIGN KEY (waktu\_awal) REFERENCES jadwal\_penting(waktu\_mulai) ON UPDATE CASCADE ON DELETE CASCADE  
);**

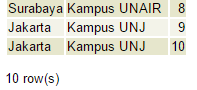




**- tabel ruang\_ujian**

**CREATE TABLE ruang\_ujian(  
 kota VARCHAR(100),  
 tempat VARCHAR(150),  
 id SMALLINT,  
 PRIMARY KEY (kota,tempat,id),  
 FOREIGN KEY (kota) REFERENCES lokasi\_ujian(kota) ON UPDATE CASCADE ON DELETE CASCADE,  
 FOREIGN KEY (tempat) REFERENCES lokasi\_ujian(tempat) ON UPDATE CASCADE ON DELETE CASCADE  
);**

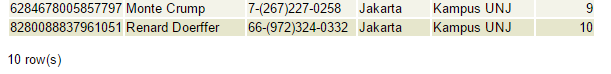




**- tabel pengawas**

**CREATE TABLE pengawas(  
 nomor\_induk VARCHAR(16),  
 nama VARCHAR(100) NOT NULL,  
 no\_telp TEXT NOT NULL,  
 lokasi\_kota VARCHAR(100) NOT NULL,  
 lokasi\_tempat VARCHAR(150) NOT NULL,  
 lokasi\_id SMALLINT NOT NULL,  
 PRIMARY KEY (nomor\_induk),  
 FOREIGN KEY (lokasi\_kota) REFERENCES ruang\_ujian(kota) ON UPDATE CASCADE ON DELETE CASCADE,  
 FOREIGN KEY (lokasi\_tempat) REFERENCES ruang\_ujian(tempat) ON UPDATE CASCADE ON DELETE CASCADE,  
 FOREIGN KEY (lokasi\_id) REFERENCES ruang\_ujian(id) ON UPDATE CASCADE ON DELETE CASCADE  
);**

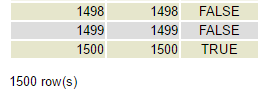




**- tabel pendaftaran\_prodi**

**CREATE TABLE pendaftaran\_prodi(  
 id\_pendaftaran INT,  
 kode\_prodi INT,  
 status\_lulus BOOLEAN NOT NULL,  
 PRIMARY KEY (id\_pendaftaran, kode\_prodi),  
 FOREIGN KEY (id\_pendaftaran) REFERENCES pendaftaran(id) ON UPDATE CASCADE ON DELETE CASCADE,  
 FOREIGN KEY (kode\_prodi) REFERENCES program\_studi(kode) ON UPDATE CASCADE ON DELETE CASCADE  
);**





|  |  |  |  |
| --- | --- | --- | --- |
| **NPM** | **Nama** | **Deskripsi Tugas** | **Kontribusi** |
| 1106023133 | Riandy Aditya Putra | DDL create table (9 tabel) | 25% |
| 1206228544 | Bambang Alibowo | Generate data (9 tabel) | 25% |
| 1406557491 | Eros Adisyaputra | Generate data (9 tabel, Rekomendasi-Pendaftaran Prodi), Membuat laporan | 25% |
| 1406571836 | Deni Pramulia | DDL create table (9 tabel) | 25% |