



**KEY:**

```
create database newdbW22;
/* drop database newdbW22;*/

/* the "USE" statement: to let the workbench know which DB
you intend to use*/
use newdbW22;

/* Table with not null and primary key constraint */
CREATE TABLE STUDENT (
SID varchar(10) not null PRIMARY KEY,
SNAME varchar (45),
SADDRESS varchar(45));

/* Table with not null and primary key constraint specified
differently */
create table PROFESSOR (
PID varchar(10) not null,
PName varchar(45),
Office varchar(45),
Age Int,
primary key (PID));

create table DEPARTMENT (
DeptName varchar(45) not null,
ChairmanID varchar(45),
primary key(`DeptName`)
);

/* Alter existing table */

ALTER TABLE PROFESSOR CHANGE COLUMN Age DataOfBirth DATE NULL;

ALTER TABLE PROFESSOR ADD NewDate DATE;

ALTER TABLE PROFESSOR DROP NewDate;

/* Table with not null and more than one primary key constraints */
create table COURSE (
CourseNum INTEGER not null,
DeptName varchar(45) not null,
CourseName varchar(45),
ClassRoom DateTime,
Enrollment INT,
primary key(`CourseNum`,`DeptName`)
);
```



**RELATIONSHIP TABLES:**

```
CREATE TABLE PreReq(  
  CourseNum Integer not null,  
  DeptName varchar(45),  
  PreReqNumber INT,  
  PreReqDeptName varchar(45),  
  primary key(`CourseNum`, `DeptName`)  
);
```

```
/* Drop a Table */
```

```
Drop table PreReq;
```

```
/* Tables with not null and foreign key constraint */
```

```
CREATE TABLE PreReq(  
  CourseNum Integer not null,  
  DeptName varchar(45),  
  PreReqNumber INT,  
  PreReqDeptName varchar(45),  
  FOREIGN KEY (CourseNum) REFERENCES COURSE (CourseNum),  
  FOREIGN KEY (DeptName) REFERENCES DEPARTMENT (DeptName)  
);
```

```
CREATE TABLE Teach (  
  PID VARCHAR(10),  
  CourseNum INT,  
  DeptName VARCHAR(45),  
  FOREIGN KEY (PID) REFERENCES PROFESSOR (PID),  
  FOREIGN KEY (CourseNum) REFERENCES COURSE (CourseNum),  
  FOREIGN KEY (DeptName) REFERENCES DEPARTMENT (DeptName)  
);
```

```
CREATE TABLE Take (  
  SID VARCHAR(10),  
  CourseNum INT,  
  DeptName VARCHAR(45),  
  Grade Decimal(4,2),  
  ProfessorEval int,  
  FOREIGN KEY (SID) REFERENCES STUDENT (SID),  
  FOREIGN KEY (CourseNum) REFERENCES COURSE (CourseNum),  
  FOREIGN KEY (DeptName) REFERENCES DEPARTMENT (DeptName)  
)
```