

Database Management Systems Lab
Assignment 1A

Submission due: February 21, 2017

1. Create the following tables from the given Schema of the university database you must mention the primary key and foreign key constraints for each relation:-

classroom (building varchar(15),
room_number varchar(7),
capacity integer(4,0));

department (dept_name varchar(20),
building varchar(15),
budget integer(12,2) check (budget > 0));

course (course_id varchar(8),
title varchar(50),
dept_name varchar(20),
credits integer(2,0) check (credits > 0),);

instructor (ID varchar(5),
name varchar(20) not null,
dept_name varchar(20),
salary integer(8,2) check (salary > 29000));

section (course_id varchar(8),
sec_id varchar(8),
semester varchar(6) check (semester in ('Fall', 'Winter', 'Spring', 'Summer'))
year integer(4,0) check (year > 1701 and year < 2100),
building varchar(15),
room_number varchar(7),
time_slot_id varchar(4));

teaches (ID varchar(5),
course_id varchar(8),
sec_id varchar(8),
semester varchar(6),
year integer(4,0));

student (ID varchar(5),
name varchar(20) not null,
dept_name varchar(20),
tot_cred integer(3,0) check (tot_cred >= 0));

takes (ID varchar(5),
course_id varchar(8),
sec_id varchar(8),
semester varchar(6),
year integer(4,0),
grade varchar(2),);

```
advisor (s_ID varchar(5),  
i_ID varchar(5), );
```

```
time_slot (time_slot_id varchar(4),  
day varchar(1),  
start_hr integer(2) check (start_hr >= 0 and start_hr < 24),  
start_min integer(2) check (start_min >= 0 and start_min < 60),  
end_hr integer(2) check (end_hr >= 0 and end_hr < 24),  
end_min integer(2) check (end_min >= 0 and end_min < 60), );
```

```
prereq (course_id varchar(8),  
prereq_id varchar(8) );
```

Sample code for table creation:

```
create table classroom (building varchar(15),  
room_number varchar(7),  
capacity integer(4,0),  
primary key (building, room_number) );
```

```
create table course (course_id varchar(8),  
title varchar(50),  
dept_name varchar(20),  
credits integer(2,0) check (credits > 0),  
primary key (course_id),  
foreign key (dept_name) references department  
on delete set null );
```

2. Write queries to Display the sample tables after you have entered the data from smallRelationsInsertFile.sql
3. Check out which foreign key constraints should be set to (**on delete cascade**)