

APPENDIX A



Detailed University Schema

In this appendix, we present the full details of our running-example university database. In Section A.1 we present the full schema as used in the text and the E-R diagram that corresponds to that schema. In Section A.2 we present a relatively complete SQL data definition for our running university example. Besides listing a datatype for each attribute, we include a substantial number of constraints. Finally, in Section A.3, we present sample data that correspond to our schema. SQL scripts to create all the relations in the schema, and to populate them with sample data, are available on the web site of the book, db-book.com.

A.1 Full Schema

The full schema of the university database that is used in the text follows. The corresponding schema diagram, and the one used throughout the text, is shown in Figure A.1.

```
classroom(building, room_number, capacity)
department(dept_name, building, budget)
course(course_id, title, dept_name, credits)
instructor(ID, name, dept_name, salary)
section(course_id, sec_id, semester, year, building, room_number, time_slot_id)
teaches(ID, course_id, sec_id, semester, year)
student(ID, name, dept_name, tot_cred)
takes(ID, course_id, sec_id, semester, year, grade)
advisor(s_ID, i_ID)
time_slot(time_slot_id, day, start_time, end_time)
prereq(course_id, prereq_id)
```

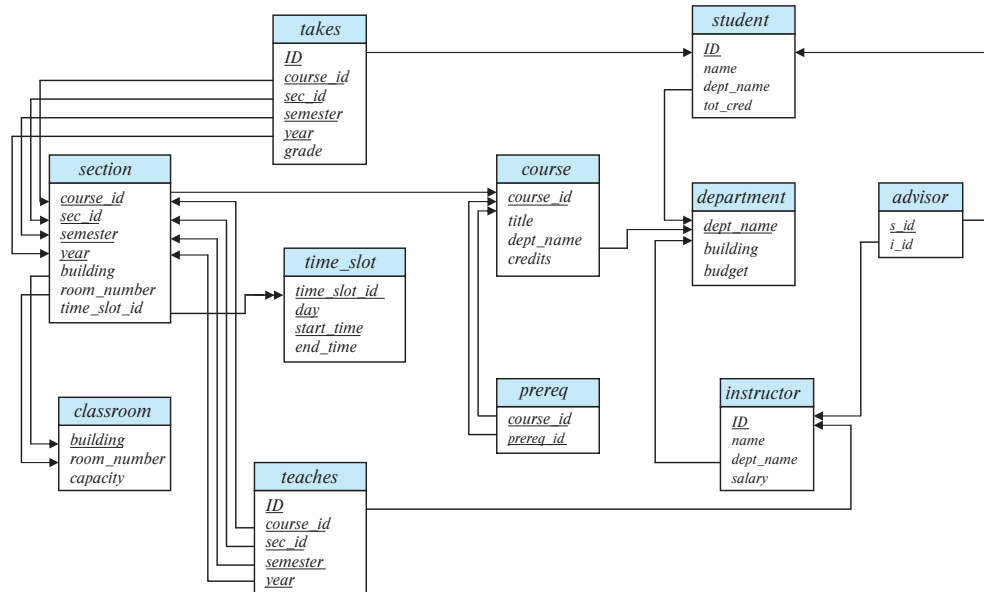


Figure A.1 Schema diagram for the university database.

A.2 DDL

In this section, we present a relatively complete SQL data definition for our example. Besides listing a datatype for each attribute, we include a substantial number of constraints.

```

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

create table department
  (dept_name varchar (20),
   building  varchar (15),
   budget   numeric (12,2) check (budget > 0),
   primary key (dept_name));
  
```