

Project Group:

- Project name: Registrar's Spreadsheet
- Team name: Team #8
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Phase 3, Task C

Task C: Creating and loading relations.

The relations (tables) needed for your project were created in Phase 2. In this stage, you will establish

the actual relationships. To construct all the tables in your database, create the file create.sql.

The

data files for these relations should be tab- or comma-delimited. You have the option of creating the

tab- or comma-separated files yourself (using dummy values) or providing the sources. To load data

in bulk, create a load.sql file.

Create a file named taskC.pdf and add create.sql, load.sql, and all of the .dat files (or .csv files, or datafiles in any order

SQL statements are included below, the referenced CSVs can be found in the data subdirectory of the zipped repository as they were too large to include in a document.

```
CREATE TABLE courses
( course_num INT PRIMARY KEY
, course_name VARCHAR(50) NOT NULL
, course_description TEXT
);

CREATE TABLE ap_courses
( course_num INT PRIMARY KEY
, exam_date DATE NOT NULL
, FOREIGN KEY (course_num) REFERENCES courses(course_num)
);

CREATE TABLE prereqs
( course_num INT NOT NULL
, prereq_num INT NOT NULL
, FOREIGN KEY (course_num) REFERENCES courses(course_num)
, FOREIGN KEY (prereq_num) REFERENCES courses(course_num)
, PRIMARY KEY (course_num, prereq_num)
```

```
);
```

```
CREATE TABLE teachers
```

```
( tid INT PRIMARY KEY  
  , ssn CHAR(11) NOT NULL UNIQUE  
  , fname VARCHAR(50) NOT NULL  
  , lname VARCHAR(50) NOT NULL  
  , email VARCHAR(100) NOT NULL  
  , phone VARCHAR(15)  
  , room_no INT  
);
```

```
CREATE TABLE administrators
```

```
( aid INT PRIMARY KEY  
  , ssn CHAR(11) NOT NULL UNIQUE  
  , fname VARCHAR(50) NOT NULL  
  , lname VARCHAR(50) NOT NULL  
  , email VARCHAR(100) NOT NULL  
  , phone VARCHAR(15)  
  , room_no INT  
);
```

```
CREATE TABLE supervises
```

```
( tid INT NOT NULL  
  , aid INT NOT NULL  
  , PRIMARY KEY (tid, aid)  
  , FOREIGN KEY tid REFERENCES teachers(tid)  
  , FOREIGN KEY aid REFERENCES administrators(aid)  
);
```

```
CREATE TABLE counselors
```

```
( cid INT PRIMARY KEY  
  , ssn CHAR(11) NOT NULL UNIQUE  
  , fname VARCHAR(50) NOT NULL  
  , lname VARCHAR(50) NOT NULL  
  , alpha_range CHAR(3)  
);
```

```
CREATE TABLE students
```

```
( sid INT PRIMARY KEY  
  , cid INT NOT NULL REFERENCES counselors(cid)  
  , ssn CHAR(11) NOT NULL UNIQUE
```

```

, fname VARCHAR(50) NOT NULL
, lname VARCHAR(50) NOT NULL
, gpa REAL
, dob DATE NOT NULL
, email VARCHAR(100) NOT NULL UNIQUE
, address VARCHAR(255)
);

CREATE TABLE seniors
( sid INT PRIMARY KEY REFERENCES students(sid)
, grad_status BOOLEAN );

CREATE TABLE juniors
( sid INT PRIMARY KEY REFERENCES students(sid)
, sat SMALLINT );

CREATE TABLE sophmores
( sid INT PRIMARY KEY REFERENCES students(sid)
, psat SMALLINT );

CREATE TABLE sections
( section_id INT NOT NULL
, course_num INT NOT NULL
, tid INT NOT NULL
, class_time VARCHAR(20) NOT NULL
, room_no INT
, PRIMARY KEY (section_id, course_num)
, FOREIGN KEY (course_num) REFERENCES courses(course_num)
, FOREIGN KEY (tid) REFERENCES teachers(tid)
);

CREATE TABLE enrollment
( sid INT REFERENCES students(sid)
, section_id INT REFERENCES sections(section_id)
, course_number INT REFERENCES courses(course_number)
, PRIMARY KEY (sid, section_id, course_number)
);

LOAD DATA LOCAL INFILE
'../data/course.csv'
INTO TABLE courses

```

```
FIELDS TERMINATED BY ','
LINES TERMINATED BY '\n'
IGNORE 1 LINES
(course_num, course_name, course_description);

LOAD DATA LOCAL INFILE
'../data/ap_course.csv'
INTO TABLE ap_courses
FIELDS TERMINATED BY ','
LINES TERMINATED BY '\n'
IGNORE 1 LINES
(course_num, exam_date);

LOAD DATA LOCAL INFILE
'../data/prereq.csv'
INTO TABLE prereqs
FIELDS TERMINATED BY ','
LINES TERMINATED BY '\n'
IGNORE 1 LINES
(course_num, prereq_num);

LOAD DATA LOCAL INFILE
'../data/teacher.csv'
INTO TABLE teachers
FIELDS TERMINATED BY ','
LINES TERMINATED BY '\n'
IGNORE 1 LINES
(tid, ssn, fname, lname, email, phone, room_no);

LOAD DATA LOCAL INFILE
'../data/administrator.csv'
INTO TABLE administrators
FIELDS TERMINATED BY ','
LINES TERMINATED BY '\n'
IGNORE 1 LINES
(aid, ssn, fname, lname, email, phone, room_no);

LOAD DATA LOCAL INFILE
'../data/supervises.csv'
INTO TABLE supervises
FIELDS TERMINATED BY ','
LINES TERMINATED BY '\n'
IGNORE 1 LINES
```

```
(tid, aid);

LOAD DATA LOCAL INFILE
'../data/counselor.csv'
INTO TABLE counselors
FIELDS TERMINATED BY ','
LINES TERMINATED BY '\n'
IGNORE 1 LINES
(cid, ssn, fname, lname, alpha_range );

LOAD DATA LOCAL INFILE
'../data/student.csv'
INTO TABLE students
FIELDS TERMINATED BY ','
LINES TERMINATED BY '\n'
IGNORE 1 LINES
(sid, cid, ssn, fname, lname, gpa, dob, email, address);

LOAD DATA LOCAL INFILE
'../data/senior.csv'
INTO TABLE seniors
FIELDS TERMINATED BY ','
LINES TERMINATED BY '\n'
IGNORE 1 LINES
(sid, grad_status);

LOAD DATA LOCAL INFILE
'../data/junior.csv'
INTO TABLE juniors
FIELDS TERMINATED BY ','
LINES TERMINATED BY '\n'
IGNORE 1 LINES
(sid, sat);

LOAD DATA LOCAL INFILE
'../data/sophomore.csv'
INTO TABLE sophmores
FIELDS TERMINATED BY ','
LINES TERMINATED BY '\n'
IGNORE 1 LINES
(sid, psat);

LOAD DATA LOCAL INFILE
```

```
'../data/section.csv'  
INTO TABLE sections  
FIELDS TERMINATED BY ','  
LINES TERMINATED BY '\n'  
IGNORE 1 LINES  
(section_id, course_num, tid, class_time, room_no);  
  
LOAD DATA LOCAL INFILE  
'../data/enroll.csv'  
INTO TABLE enrollment  
FIELDS TERMINATED BY ','  
LINES TERMINATED BY '\n'  
IGNORE 1 LINES  
(sid, section_id, course_num);
```