

CSE 344 Section 4 Worksheet

```
-- All classes, even ones that are not being taught this quarter.
-- Some classes may be taught by multiple instructors.
CREATE TABLE Class (
    dept      VARCHAR(50), -- eg, "CSE" or "DATA"
    coursenum INT,         -- eg, "344" or "514"
    title     VARCHAR(50),
    PRIMARY KEY (dept, coursenum));

-- All instructors, including ones that are not currently teaching.
-- Some instructors may teach more than one class in a single
quarter.
CREATE TABLE Instructor (
    username  VARCHAR(50) PRIMARY KEY,
    fname     VARCHAR(50),
    lname     VARCHAR(50),
    started_on CHAR(10));

-- This quarter's teaching assignments
CREATE TABLE Teaches(
    username  VARCHAR(50) REFERENCES Instructor,
    dept      VARCHAR(50), -- FK into Class
    coursenum INT,         -- FK into Class
    FOREIGN KEY (dept, number) REFERENCES Class);
```

1. How many classes are currently being taught by at least one instructor?

2. Which instructors currently teach more than 1 class? Give the username, first name, and last name of these instructors. Do NOT use a correlated subquery (although that is a good place to start).

(Tables repeated for convenience)

```
CREATE TABLE Class (  
    dept        VARCHAR(50),  
    coursenum   INT,  
    title       VARCHAR(50),  
    PRIMARY KEY (dept, coursenum));
```

```
CREATE TABLE Instructor (  
    username    VARCHAR(50) PRIMARY KEY,  
    fname       VARCHAR(50),  
    lname       VARCHAR(50),  
    started_on  CHAR(10));
```

```
CREATE TABLE Teaches(  
    username    VARCHAR(50) REFERENCES Instructor,  
    dept        VARCHAR(50),  
    coursenum   INT,  
    FOREIGN KEY (dept, number) REFERENCES Class);
```

3. Which CSE courses do neither Dr. Levy (username 'levy') nor Dr. Wetherall (username 'djw') teach this quarter? Give the department, number, and title of these courses.