The tables that you loaded from the scripts have no constraints. We need to correct this oversight:

- 1. Alter the dept table to have the following deferrable (initially immediate) constraints:
  - a. deptno is the primary key
  - a. dname is unique and not null
- 2. Alter the emp table to have the following deferrable (initially immediate) constraints:
  - a. empno is the primary key
  - b. ename is unique and not null
  - c. mgr references the empno attribute in the table emp
  - d. deptno references the deptno attribute in the table dept
  - e. the sal attribute value should lie in the interval 500 to 10000
- 3. Alter the table s to have the following deferrable (initially immediate) constraints:
  - a. s# is the primary key
  - b. sname is unique and not null
- 4. Alter the table p to have the following deferrable (initially immediate) constraints:
  - a. p# is the primary key
  - b. pname is unique and not null
- 5. Alter the table sp to have the following deferrable (initially immediate) constraints:
  - a. the pair s# and p# is the primary key
  - b. qty is either null or non-negative

- c. s# references the s# attribute of the table s and p# references the p# attribute of thep table.
- 6. Create an index on the deptno attribute of emp
- 7. Two hiredate values in the emp table are incorrect; they are listed as 2013 whereas the correct hiredate was 2012. Identify the difficulty and correct it. You might want to use the add\_months function with the prototype:

add\_months(date, #months)

where the #months value can be either positive or negative.

Commit your results.

- 8. List all indexes with table name and index name.
- 9. List all constraints with table name and constraint name.

Create a script to execute this assignment. The format of the script should be:

- -- Your name
- -- CS 440
- -- Assignment 2
- -- January 28, 2015

## set echo on

-- Problem 1a

. . . . .

-- Problem 1b

. . . . . .

Run your script, spool your output and submit the spooled results.

Hint: start your script by dropping all constraints and indexes.