SQL Assignment 01-2A - Introduction to SQL (20 points)

Please make sure your name and the assignment number appears on the homework.

The following assignment is designed to help you learn SQL and ORACLE. Use the example in Elmasri Page 137 (Figure 5.6). Use exactly the same data instances as the book. Read through all the questions and comments first before you start. Show all your work for problems 1 and 2. Submit the answers in the order of questions with a clear label for each question and specify the portion of the output that you want graded if there is some unwanted output in your answers. Keep copies of your commands on a persistent media of your choice.

Write the name of your database engine and version number of your database system.

1. (DDL Exercise): Show commands and the system response. (10 points)
   (a) Create a table for each relation show on page 211. For all PK-FK chains, you have to use the same data type and length (see page 211). Do not define the referential integrity (Foreign Key) in your CREATE TABLE command at this time. The data instances are exactly the same as the textbook example in P.137 and it is important to keep them in the same order as presented in the book, except break the composite attribute ADDRESS into its components STREET(20 Characters), CITY(20), STATE(2), ZIPCODE(10). SEE examples on page 211.
   (b) All constraints must have a constraint name except the NULL constraints.
   (c) The constraints NULL and NOT NULL must be explicitly stated.
   (d) Use the ALTER TABLE command to change the data type of PLOCATION in PROJECT table into VARCHAR2 (20).
   (e) Use the ALTER TABLE command to change the NOT NULL constraint of HOURS in the WORKS_ON table to NULL.

Show all the CREATE TABLE and ALTER TABLE commands and the output from SQLPLUS.

2. (INSERT exercise): Enter the data instances into each table. (Be sure to enter entire data instances exactly as in the book on p.137, as CHAR and VARCHAR2 are case sensitive). Use NULL when putting in null values. Enter dates as the following in the INSERT statements: '09-JAN-1965' not '1965-01-09'. (10 points)

Corrections: In Dept_Location, Houston's dnumber is 5.

Note: I prefer to create my statements in MS WORD (use the COURIER NEW font and take off SMART QUOTES) and paste them into SQLPLUS.