Homework 3

Please save all your code in a file called **HW3.sql** to submit to D2L. Please put a comment at the beginning to indicate question number.

1. (12 pts) Exercises with Functions

Recall the **format_phone** function that we coded in Homework 1, which converted an input like 123.456.7890 to a U.S. phone number format like (123) 456-7890.

1. **(10 pts)** Rewrite the **format_phone** function using regular expressions. Hint: Look into regexp-instr and regexp_replace.
2. **(2 pts)** Test your function with the input 123.456.7890.

2. (18 pts) Using Functions to Reformat SQL Attributes

1. **(4 pts)** Use SQL Developer to create an Employee table with the following attributes: last_name varchar2(50), first_name varchar2(50), phone_number varchar2(15)
2. **(2 pts)** Insert the following sample data into the Employee table:
   (‘Joe’, ‘Smith’,’123.456.7890’)
   (‘Chris’, ‘White’, ‘324.675.2344’)
   (‘Jenny, ‘Kim, ‘312.401.3755’)
   (‘Hirsch, ‘Patel, ‘773.536.4143’)
   (‘April, ‘Brown, ‘616.977.6865’)

3. **(12 pts)** Write a PL/SQL block to reformat the entries of the **phone_number** column to U.S. phone number format.
   The code should make use of the regex **format_phone** function from above and an **explicit cursor** to iterate over the rows.
   After the code is run the Employee table must have updated phone numbers in U.S. number format.

3. (20 pts) Real Life Application with Cursors

Modify the employee performance cursor that we introduced in class so that instead of recording the bonus on the Employees table it creates a new table called **Bonus** and records the full name of the employee (lastname, firstname) together with their bonus amount.