CSE 4508 – RDBMS Programming Lab

Lab 7

Prerequisites: Oracle 10g Express Edition, Notepad

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A. Write a block of PL/SQL code which checks whether the current year is the starting year of a new decade (years such as 2000, 2010, 2020) and prints either "Yes" or "No". After this, it should print the current decade (e.g. for 2000 to 2009, print 'The 2000s', for 2010 to 2019, print 'The 2010s').

B. Write a PL/SQL procedure(or function) called **prime_generator** which takes only one input: **s**. The function will keep generating prime numbers, starting from 2, until the sum of the all the prime numbers generated so far is less than or equal to **s .** For example, if s = 20, the output will be: **2, 3, 5, 7** (Since 2+3+5+7 = 17. "11" is not included since that would make the sum greater than 20) Execute this function from a PL SQL block.

C. A hacker stumbles onto a database table containing only two columns: Username (varchar2) and Password_Length (number). Password_Length only contains a number, such as 7 or 8, denoting how long the password of that username is. Write a block of PL/SQL, using a procedure or function if necessary, which will first find the highest Password_Length from the table. It will then find out how many permutations the hacker needs to go through to crack that password. (The password only contains letters of the alphabet. You therefore have 26x2= 52 possibilities for each symbol of the password. However, no character can be repeated. So the correct answer, for a password of length 4, is: 52x51x50x49 = 6497400)