Lab 8: PL/SQL

Due date: Friday, June 3 11:59. There is also a grace period for this lab, which extends until 10:00am, June 4.

Assignment Preparation

This is an **Extra Credit** lab. The lab is worth up to 2% towards the final grade which will be added to your score for the entire course.

You do not have to complete this lab, but if you are uncertain about your performance, here is your chance to improve it a little bit.

This assignment is a followup to the Lab 7 assignment, and is best done in the same teams, as it asks you to improve your Lab 7 code.

Lab Assignment

The lab uses the INN dataset, and asks you to augment your Lab 7 submission.

There are two parts to the lab.

Part 0. Create a PL/SQL package `INNOperations`. The package will contain stored procedures and stored functions you are asked to create in Parts 1 and 2.

Part 1. Create a PL/SQL stored procedure Find_Cheapest() which takes as input the following parameters:

- Start date of the desired hotel stay;
- Checkout date of the desired hotel stay;
- Number of people staying in the room;

and prints out the name of the room (or the names of the room) that:

- can accommodate the specified number of people;
- is/are available on each night of the proposed period of stay;
- is/are the least expensive option available in the inn.

Your procedure shall output the start and the end date of the putative stay, and then print one line per room found. It shall print the full name of the room, the base nightly rate and the total base rate for the duration of the stay.

If no room is available, your procedure shall print `"Sorry, no rooms are available for these dates"` message.

Write a short PL/SQL anonymous block that finds the cheapest rooms available for five different 3-4 day stays (pick the dates yourselves).

Part 2. Create a PL/SQL stored function the helps in implementing requirements **R-2** and **R-3** from Lab 7. Essentially, your function, `fin_Occupancy()` shall take as input the three-letter room code and a single date, and output `"Occupied"` if the room is occupied on the given night, and the rate of the room (incorporating the weekend/holiday markup, but NOT incorporating the AAA/AARP discounts), if the room is available. (Hint, compute the rate as a floating point, then convert to a string before outputting it).

Change your Lab 7 program to incorporate the use of the function. Create a simple README file containing the information where in your program (file name, class name, method name and/or file name and code lines) the newly defined stored function is used.

Submission Instructions

For the `INNOperations` package, create the `INNOperations.sql` file. Put the stored procedure for Part 1 and the stored function for Part 2 there.

For Part 1, also submit a .sql file containing the anonymous block that uses the `Find_Cheapest()` procedure.

For Part 2, submit the new version of your Lab 7 program. Follow Lab 7 submission instructions for packaging the program. Submit a README file that contains the description of how the program can be compiled and run, as well points to the location of the changes in your code.

Last, but not least, submit a `team.txt` file containing the team name, and the list of team members and their email addresses.

Submit all files using `handin` as shown below.

```
handin dekhtyar-grader lab08 <files>
```

Each file must contain a comment block at the top listing all members of the group.