**UMBC**

**IS420 Database Application Development**

Spring 2020

**Hotel Management System**

The actual tasks for the hotel management system are given below.

* Task 1:
  1. [10 Pst] Add a new hotel: Create a new hotel with appropriate information about the hotel as input parameters.
  2. [10 Pst] Find a hotel: Provide as input the address of the hotel and return its hotel ID
  3. [10 Pst] Delete a hotel by ID
  4. [10 Pst] Display hotel info: Given a hotel ID, display all information about that hotel (Includes room, rates and availability)
* Task 2:
  1. [10 Pst] Make a reservation: Input parameters: Hotel ID, guest’s name, start date, end date, room type, date of reservation, etc. Output: reservation ID (this is called confirmation code in real-life). NOTE: Only one guest per reservation. However, the same guest can make multiple reservations.
  2. [10 Pst] Find a reservation: Input is guest’s name and date, hotel ID. Output is reservation ID
  3. [10 Pst] Cancel a reservation: Input the reservationID and mark the reservation as cancelled (do NOT delete it)
* Task 3:
  1. [10 Pst] Change a reservationRoomType: Input the reservation ID and change reservation room type if there is availability for that room type during the reservation’s date interval
* Task 4:

1. [10 Pst] Display a bill: Input parameters: reservation ID. Print on the console a bill for the guest. Include guest name, hotel Name and ID, start date, end date, room type, date of reservation, room number, charge per day, rate per day and total amount.
2. [10 Pst] Income By State Report:
   1. Input is state. Print total income from all sources of all hotels by room type.
   2. Input is hotel ID. Print total income of hotel by room type.

* GUI: There is no Graphical User Interface (GUI) for this project. You need to create PL/SQL procedures and functions that carry out the tasks identified above. Each task will be a separate PL/SQL stored procedure or function.
* Input/output: For tasks that require input parameters, you need to call the corresponding PL/SQL procedure or function and pass to it the input parameters. This means that you need to have another program that calls your procedures and functions.
* How to speed up your work: First start by writing and completing the simple tasks. Make sure that you are DEBUGGING your code:
  1. First thing to do in each procedure/function is to print out the values of the input parameters. This way you know that they were passed correctly, before you start working on the main part of the procedure/function.
  2. Occasionally within the procedure/function print out the values of variables, just to make sure your procedure is progressing correctly.
  3. Always use EXCEPTIONs to explain what went wrong. This will definitely speed up the implementation time. In addition, EXCEPTIONS ARE REQUIRED for every single procedure and function. There will be points taken off for missing exceptions.