## Lecture 6 practice – SQL

Part I. Consider the following relations:

## Hotel (hotelNo, hotelName, city)

## Room (roomNo, hotelNo, type, price)

## Booking (hotelNo, guestNo, dateFrom, dateTo, roomNo)

## Guest (guestNo, guestName, guestAddress)

(The underlined attributes form the primary key. Note that SQL has a DATE domain that dateFrom and dateTo use. Dates can be compared using operators, such as < and >.)

Write SQL statements to perform the following:

1. Display all information in the hotel relation.
2. List the names and addresses of all guests from Seattle, alphabetically by name. (Assume the guestAddress in Guest table contains the information including city, state, etc.)
3. Determine the number of hotels in the database.
4. Determine how many different guests have made bookings for some part of March 2015.
5. Count how many hotels there are in each city.
6. List the hotelNo and average price of ‘Standard’ rooms at each hotel.
7. List the name of all guests currently staying at the Hilton (use CURRENT\_DATE – see below).
8. Count the number of rooms in each hotel in Las Vegas along with the name of the hotel.
9. List hotelNo who have more than 2 ‘Double’ rooms.
10. List the rooms that are currently unoccupied at the Hilton.

**Query syntax:**

SELECT [DISTINCT] {\* | [columnExpression [AS newName]] [,…]}

FROM TableName [alias] [,…]

[WHERE condition]

[GROUP BY columnList

[HAVING condition] ]

[ORDER BY columnList]

CURRENT\_DATE returns the current date in the time zone that is local to the user.

Part II



Get the total number of employees whose salaries exceed $30,000 in each department, but only for departments where more than 2 employees work

## Part III. Update

1. Any syntax errors? Assume test & test2 both have 3 attributes: id int, name varchar(15), salary decimal(10,2)

1. Insert table test values(1, John, 30)
2. Insert into test values (2, 'John');
3. Insert into test values as select \* from test2;
4. Delete from table test, test2 where id = 1;
5. Update set test.id = 3 where name = 'John';

2. Write SQL statement to increase the salary of John Smith by 25% (of the Company.db)

**Syntax:**

**INSERT INTO** table\_name [ ( col\_name1, col\_name2, .... ) ]

**VALUES** ( expression1\_1, expression1\_2, .... ), ( expression2\_1, expression2\_2, .... ), ....

**INSERT INTO** table\_name [ ( col\_name1, col\_name2, .... ) ]

**SELECT** ...

**DELETE FROM** table\_name

**[WHERE** expression]

**UPDATE** table\_name

**SET** col\_name1 **=** expression1, col\_name2 = expression2, ....

[**WHERE** expression ]