**Practical 11**

# SQL – Insert, Update, Delete, DDL

## Instructions

In this practical, you are to work in pairs. A common login account has been created for all students of the same tutorial group.

You should work together with your partner using the login account/password assigned to your tutorial group.

Username : **dbms\_dit01 – dbms\_dit03** – for DIT students

**dbms\_dbi01 - dbms\_dbi03** – for DBI students

**dbms\_dbt01 – dbms\_dbt03** – for DBT students

**dbms\_dfi01 – dbms\_dfi03** – for DFI students

**dbms\_dis01 – dbms\_dis03** – for DSF students

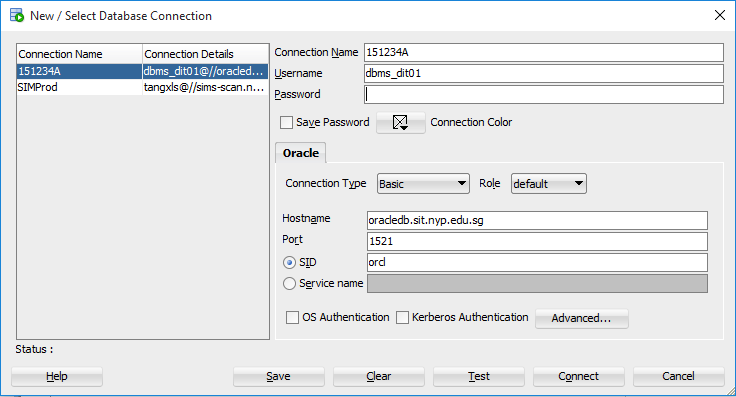
**dbms\_dba01 – dbms\_dba03** – for DBA students

Connection Name: <your admNo>

Username: dbms\_d...

password: studpass

Password : **studpass**



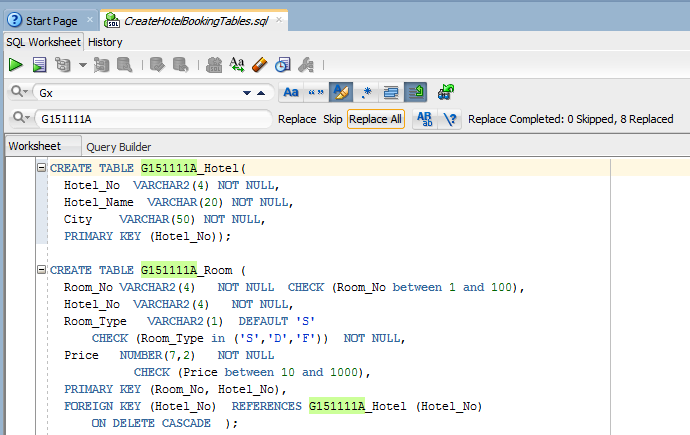
All students of the same diploma will share one common database.

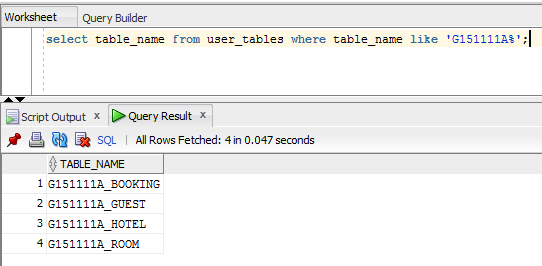
**In order to differentiate your tables/database objects from the others, you have to prefix the names of your tables/database objects with your Project Group Id or admin number (of the team leader).**

In the following instructions, names of tables/database objects are indicated with a prefix of *G****x*** where ***x*** is to be replaced by a unique string such as an admin number. For example, if the admin number is 151111A, Gx\_Hotel will be G151111A\_Hotel and Gx\_Room will be G151111A\_Room.

**You should keep backup copy of all your scripts so that in case other students delete your tables/data accidentally, you could re-run your scripts to re-build the tables or to populate the data.**

## Tasks

1. **Run Scripts to create tables**
2. Download **CreateHotelBookingTables.sql** from the course web site to your **desktop**.
3. Login to SQL Developer using the account given. Select **File ->Open** to open the script. Describe the functions of the script.
4. Select Edit ->replace, replace all the 8 **Gx** with **G<your admNo> (eg. G151111A)** as shown below. 
5. Run the script by press the **Run Script button** or F5.
6. Open another SQL Worksheet (Right click the connection and select Open SQL Worksheet). Type the following SQL statement. Make sure the 4 tables have created.



1. **Insert SQL.**

In this exercise, you are to practice the INSERT statement. You need to insert the following data into the tables that you created in the previous task.

**Do remember to replace the Gx with G<your admNo>.**

* 1. Insert the data into the Gx\_HOTEL

|  |  |  |
| --- | --- | --- |
| **HOTEL\_NO** | **HOTEL\_NAME** | **CITY** |
| H111 | Grosvenor Hotel | London |

* 1. Insert data into Gx\_ROOM

|  |  |  |  |
| --- | --- | --- | --- |
| **ROOM\_NO** | **HOTEL\_NO** | **ROOM\_TYPE** | **PRICE** |
| 1 | H111 | S | 172 |
| 2 2 | H111 | D | 200 |
| 3 | H111 | F | 300 |

* 1. Insert data into Gx\_GUEST

|  |  |  |
| --- | --- | --- |
| **GUEST\_NO** | **GUEST\_NAME** | **GUEST\_ADDR** |
| G001 | John Smith | London |
| G002 | Michael | London |
| G003 | James | London |

* 1. Insert data into Gx\_BOOKING

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **HOTEL\_NO** | **GUEST\_NO** | **DATE\_FROM** | **DATE\_TO** | **ROOM\_NO** |
| H111 | G001 | 01-Jan-2003 | 03-Jan-2003 | 1 |
| H111 | G002 | 05-Feb-2003 | 07-Feb-2003 | 2 |
| H111 | G003 | 15-Jan-2003 | 17-Jan-2003 | 3 |

1. **Alter Table SQL**
   1. Add a new column which can contain NULL value

Modify the **Gx\_HOTEL** table to add in the following new column which allows NULL value :

Phone : VARCHAR (12)

* 1. Add a new column which is NOT NULL

Suppose the business rules have changed and you need to add in a new column, HOTEL\_MANAGER, of type VARCHAR (20) to the table **Gx\_HOTEL,** how can this be done? What happen to the existing records?

1. **Update / Delete SQL**
   1. Guest ‘John Smith’ has called the hotel to inform the change of his address to ‘Manchester’. Perform the update in the guest database.
   2. The ‘Grosvenor Hotel’ has decided to increase all the room rates by 5%. Perform the update in the database table.

Question: Did you remember to commit your changes after step 4(a) and 4(b)? What is the effect if the changes were not commited?

1. **Create View SQL**

Create a view (**Gx\_HOTEL\_GUEST**) to list all the guests’ bookings at all the hotels. Include the following information in the view :

* Hotel Name
* Guest Name
* Room Type
* Booking From Date
* Booking To Date

1. **Create Index SQL**

Assume that it is often required to perform query of the guest’s information by the guest name. In order to speed up the query, create an index on the guest name of the **Gx\_GUEST** table. Name the index as **Gx\_GUEST\_NAME\_IX**.