

National University of Computer and Emerging Sciences



Lab Exercise

“Introduction to Aggregation, Group By and JOINS”

Database Systems Lab

[Type text]

Department of Computer Science

FAST-NU, Lahore, Pakistan

1. Task Distribution

Total (160 minutes)

- **Overview of SQL Queries:**
 - **Aggregation, Group by and Order by** *(20 minutes)*
 - **Joins and its types** *(30 minutes)*
- **Practice Exercise** *(110 minutes)*



2. Objective

The purpose of this lab activity is to familiarize you with the concept of SQL Aggregation, Group By and JOINS including its various types.

3. Required material

Script files are present in the following folder:

lab_script_Inlab.sql

EXERCISE:

Please run the provided script

"lab_script_Inlab.sql"

on your newly created database and then start on the questions listed below:

1. List the names and addresses of all guests in London, alphabetically ordered by name.
2. Display the names of all the hotels along with the number of rooms present in each of them.
3. Display the average price of each hotel situated in London.
4. Display the most expensive double, single and family room respectively.
5. Display hotelname, cityname along with distinct number of room types available in each of them.
6. Display the name and city of the hotels where guest's from London are staying. The list should not contain any hotel more than once.
7. Display the name, city of all the hotels along with the number of reservations it has, in descending order.
8. Display the names of all the guests who have not provided any end date for their reservations.
9. Display the HotelName and RoomNo which was reserved in the year 2001 and 2002, also display the Guest No who reserved the room at the time.
10. Display the name of the hotel and city which has not been reserved yet. .
11. Display the price of the "Family" type room in all hotels along with the HotelNames, HotelNo, RoomNo. NULL should be shown if a hotel doesn't have a "Family" type room.
12. How many different guests have made bookings till May, 2015?