National University of Computer and Emerging Sciences
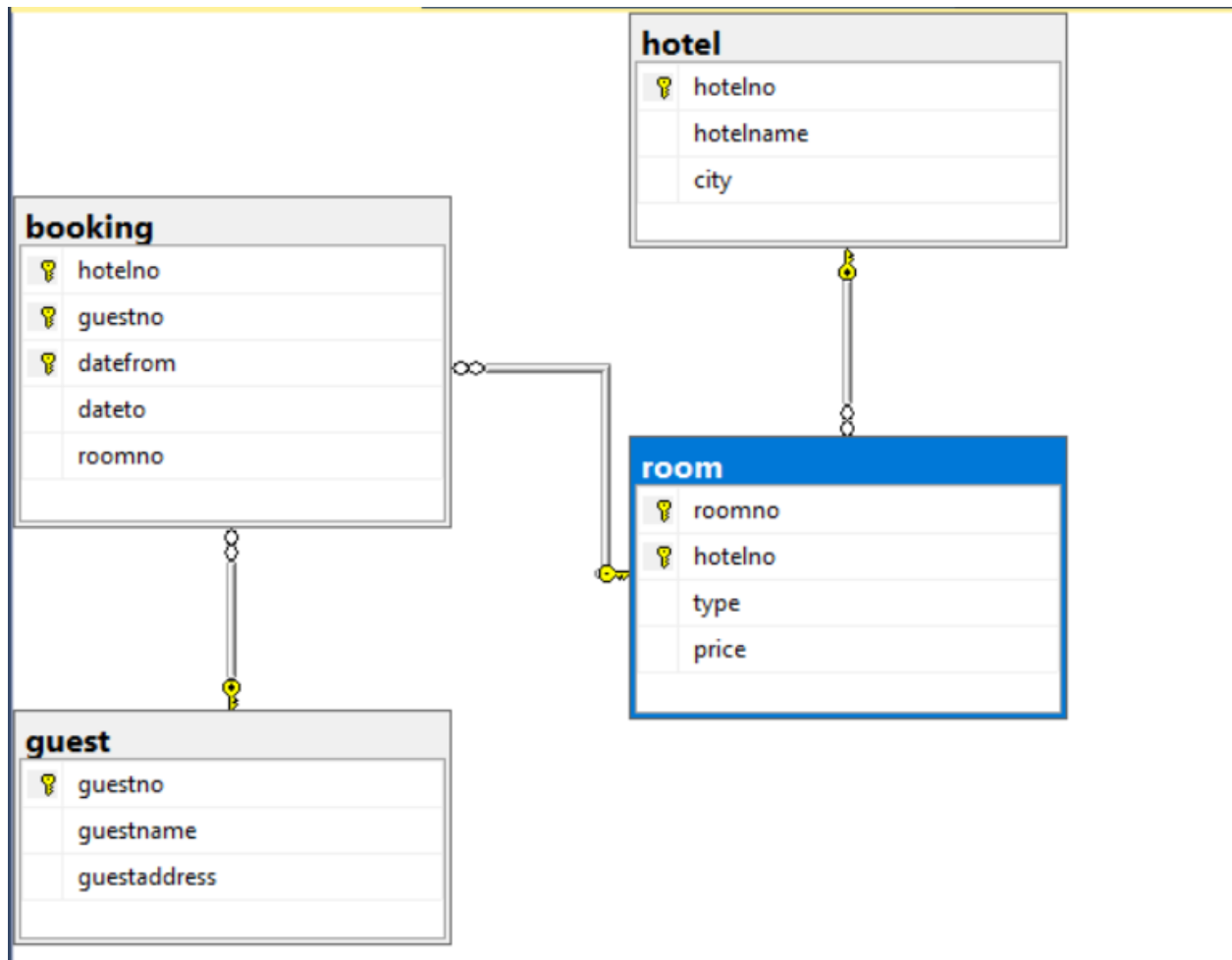
In Lab Exercise

"Data Retrieval Select-from-where, Join, Order by"

Database Systems Lab

Spring 2023

Department of Computer Science
FAST-NU, Lahore, Pakistan

hotel
- 🔑 hotelno
- hotelname
- city

booking
- 🔑 hotelno
- 🔑 guestno
- 🔑 datefrom
- dateto
- roomno

room
- 🔑 roomno
- 🔑 hotelno
- type
- price

guest
- 🔑 guestno
- guestname
- guestaddress

Hotel:

	hotelno	hotelname	city
1	ch01	Omni Shoreham	London
2	ch02	Phoenix Park	London
3	dc01	Latham	Berlin
4	fb01	Grosvenor	London
5	fb02	Watergate	Paris

Room:

	roomno	hotelno	type	price
1	501	fb01	single	19.00
2	601	fb01	double	29.00
3	701	ch02	single	10.00
4	701	fb01	family	39.00
5	801	ch02	double	15.00
6	901	dc01	single	18.00
7	1001	ch01	single	29.99
8	1001	dc01	double	30.00
9	1001	fb02	single	58.00
10	1101	ch01	family	59.99
11	1101	dc01	family	35.00
12	1101	fb02	double	86.00

Guest:

	guestno	guestname	guestaddress
1	10001	John Kay	56 High St, London
2	10002	Mike Ritchie	18 Tain St, London
3	10003	Mary Tregear	5 Tarbot Rd, Aberdeen
4	10004	Joe Keogh	2 Fergus Dr, Aberdeen
5	10005	Carol Farrel	6 Achray St, Glasgow
6	10006	Tina Murphy	63 Well St, Glasgow
7	10007	Tony Shaw	12 Park Pl, Glasgow

Booking:

	hotelno	guestno	datefrom	dateto	roomno
1	ch01	10006	2021-04-04	NULL	1101
2	ch02	10002	2025-04-04	2006-04-05	801
3	dc01	10003	2020-04-05	NULL	1001
4	dc01	10007	2013-04-05	2015-04-05	1001
5	fb01	10001 ·	2001-04-04	2008-04-04	501
6	fb01	10001	2001-04-05	NULL	701
7	fb01	10004	2015-04-04	2015-04-05	601
8	fb01	10005	2002-04-05	2007-04-05	501
9	fb02	10003	2005-04-04	2004-10-04	1001

You are given a script.sql, create your database and create table and populate data in your db.

1. List all hotels which are in London. Order the result in descending order by hotel name.
2. List the guest name and guest address of those guests who are from Glasgow and their first name is Tony or last name is Farrel.
3. List all the room nos. which were booked in the period 2005-2010. Also display the room's hotel no.
4. List all the rooms of hotel no. 1001 which are of single type and the price is between 20 to 40.
5. Show the names of all the guests for whom dateto has not been specified. (specify the join type)
6. List the room no. along with its hotel name whose price is maximum.

   Do the following question in 2 ways: Use '+' operator as well as concat function.
7. Show the data of hotel table as :
   The hotel whose id is (id) is in (city) and its name is (name).
   Example:
   The hotel whose is id isdc01 is in Berlin and its name is Latham.

8. List all the hotels which have double as well as family type rooms.
9. List all the hotels which have single as well as double type rooms but no family type room.
10. List all the rooms which have been booked by either guest no. 10003 or by guest no. 1007 but not by guest no 1001.
11. How many hotels are there?
12. List the price and type of all rooms at 'Watergate' hotel