DB Assignment #04

Date:

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Question #01

(a)

This will result in a relation with single attribute hotelNo giving the number of those hotels where price > 50

(b)

Results in a relation containg all attributes of both table because of join between tables.

(c)

Results in a relation with single attribute hotelName having tuples from both tables. after joins and room will only join with those rows after filtering where price of room in hotel >50.

(d)

Results in a relation with two attributes guestName and hotelNo and will keep a record of all guestNames who have booked a hotel in London.

Question #02

(a)

$\Pi_{hotelNo, hotelName, City}(Hotel)$

(b)

$\sigma_{type='s' \text{ and } price<20}(Room)$.

Date:

(c)

$\Pi_{guestName, guestAddress}(Guest)$

(d)

$\Pi_{price, type}(ROOM \ltimes_{hotelNo}(\sigma_{hotelName = 'Governor'}(Hotel)))$

(a)

$\Pi_{guestNo}(Booking \ltimes_{hotelNo}(\sigma_{hotelName = 'Governor'}(Hotel)))$

(f)

$ROOMS \ltimes_{hotelNo}(\sigma_{hotelName = 'Governor'}(Hotel)) \bowtie_{hotelNo = hotelNo \text{ AND } roomNo = roomNo}$

$\Pi_{guestName, hotelNo, roomNo}(Guest \ltimes_{guestNo}(Booking \ltimes_{hotelNo}(\sigma_{hotelName = 'Governor'}(Hotel))))$

(g)

$\Pi_{guestNo, guestName, guestAddress}(\sigma_{hotelName = 'Governor'}(Hotel \bowtie_{hotelNo = hotelNo}(Booking \bowtie_{guestNo = guestNo}(Guest))))$

(h)

$\Pi_{roomNo, hotelNo, type}(\sigma_{hotelName = 'Governor'}(Hotel \bowtie_{hotelNo = hotelNo}(ROOMS)))$

ADVANTAGE:

⇒ Hide price details from people who should not see.

⇒ A query against view is simpler than query against 2 underlying relations.