

→ Any engg interview → intern, sde-1, sde-2 →

→ actual engg

2-problems

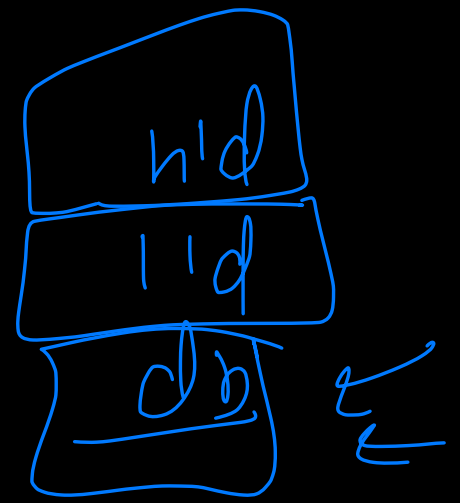
How to design db schema?
or

how to do data modelling

nothing in
100%

1) Design db schema for booking.com

2) Design db schema for twitter



→ interview → 8dbms (90-99%)

1) Try to ensure that there is as less data duplicacy as possible. → (normalisation)

id	addr
user-1	XY2, City2
user-2	abc, City1

addr-line
addr-line
pincode →
city → ←
state →

2) Understand that 2 tables can be related & hence the queries will also be imported. (farsighted)

3) keep in mind actual real life apps.

4) Try to comm your thoughts

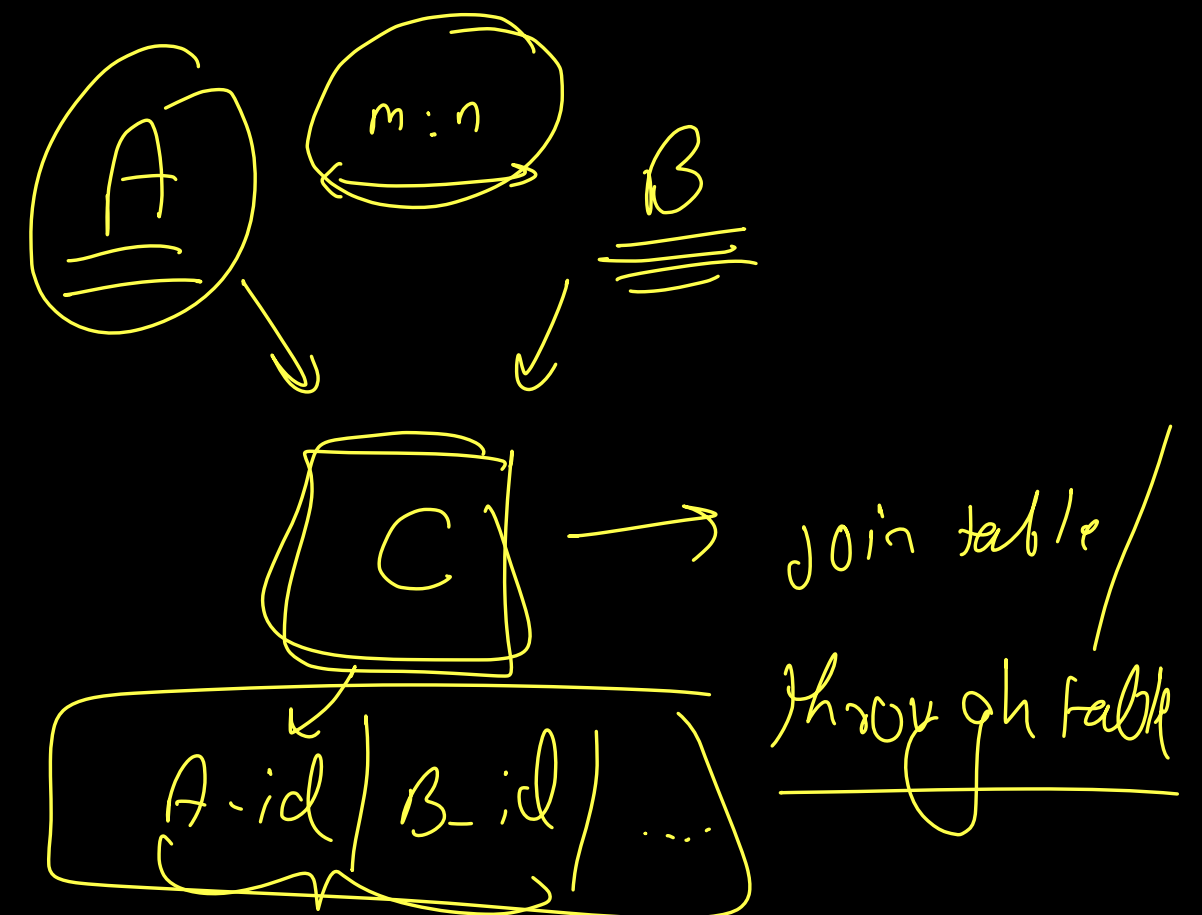
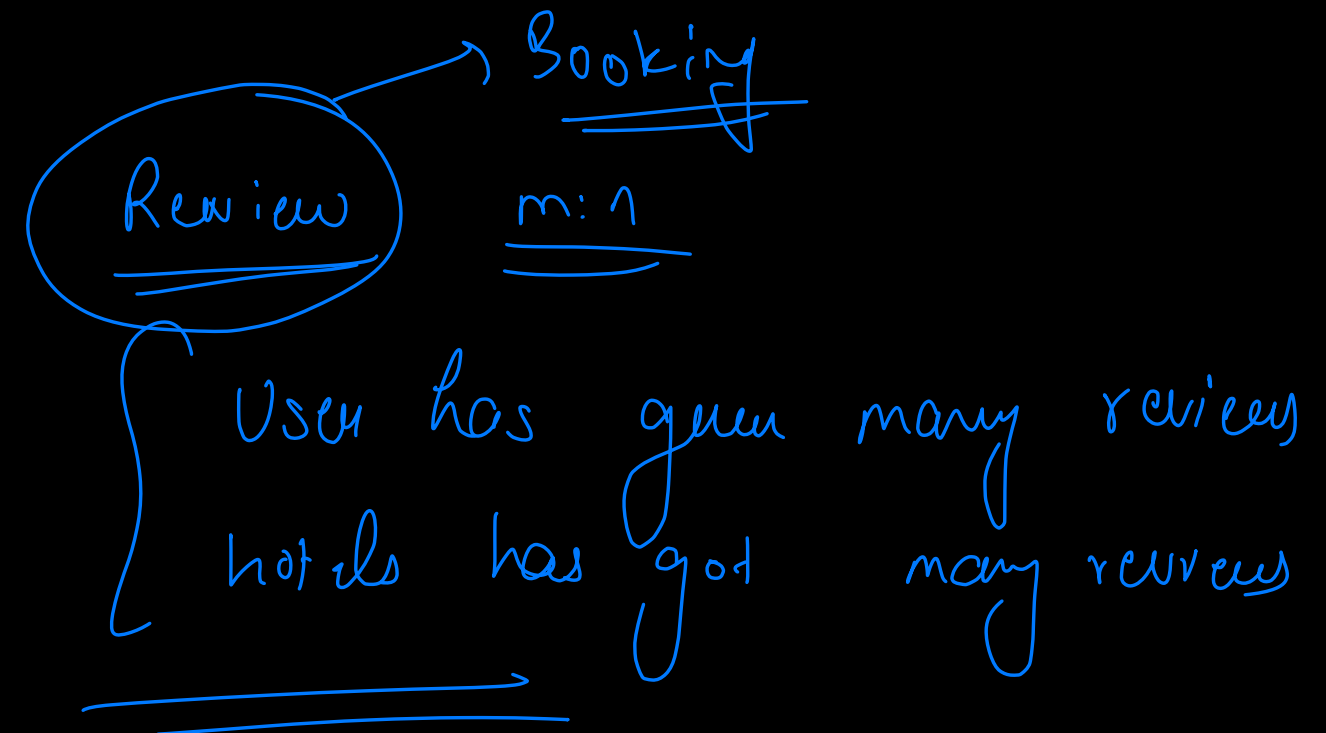
Design Booking.com

1) Requirement analysis →

- 1) Owners of hotels should be able to list property & rooms on the platform.
- 2) Users can book a room of a hotel for a range of dates.
- 3) Users might want to bookmark some hotels.
- 4) Review supports

Entities

- 1) Users
- 2) hotels
- 3) Review (join table)
- 4) Booking (join table)
- 5) Wishlist (join table)
- 6) Rooms ? ? ?



Number of guests	Today's price	Your choices	Select rooms
	₹ 11,000 +₹ 1,980 taxes and charges	<input type="checkbox"/> Good breakfast ₹ 1,250 <input checked="" type="checkbox"/> Non-refundable • Pay the property before arrival	0
	₹ 12,500 +₹ 2,250 taxes and charges	<input checked="" type="checkbox"/> Good breakfast included <input checked="" type="checkbox"/> Non-refundable • Pay the property before arrival	0
	₹ 10,000 +₹ 1,800 taxes and charges	<input type="checkbox"/> Good breakfast ₹ 1,250 <input checked="" type="checkbox"/> Non-refundable • Pay the property before arrival	0
	₹ 11,500 +₹ 2,070 taxes and charges	<input checked="" type="checkbox"/> Good breakfast included <input checked="" type="checkbox"/> Non-refundable • Pay the property before arrival	0
	₹ 15,000 +₹ 2,700 taxes and charges	<input checked="" type="checkbox"/> Breakfast & dinner included <input checked="" type="checkbox"/> Includes 15% off food/drink <input checked="" type="checkbox"/> Non-refundable • Pay the property before arrival	0
	₹ 14,000 +₹ 2,520 taxes and charges	<input checked="" type="checkbox"/> Breakfast & dinner included <input checked="" type="checkbox"/> Includes 15% off food/drink <input checked="" type="checkbox"/> Non-refundable • Pay the property before arrival	0

x-y

303

x-y y+1-2

no. of rooms

category of rooms

hotel has many rooms

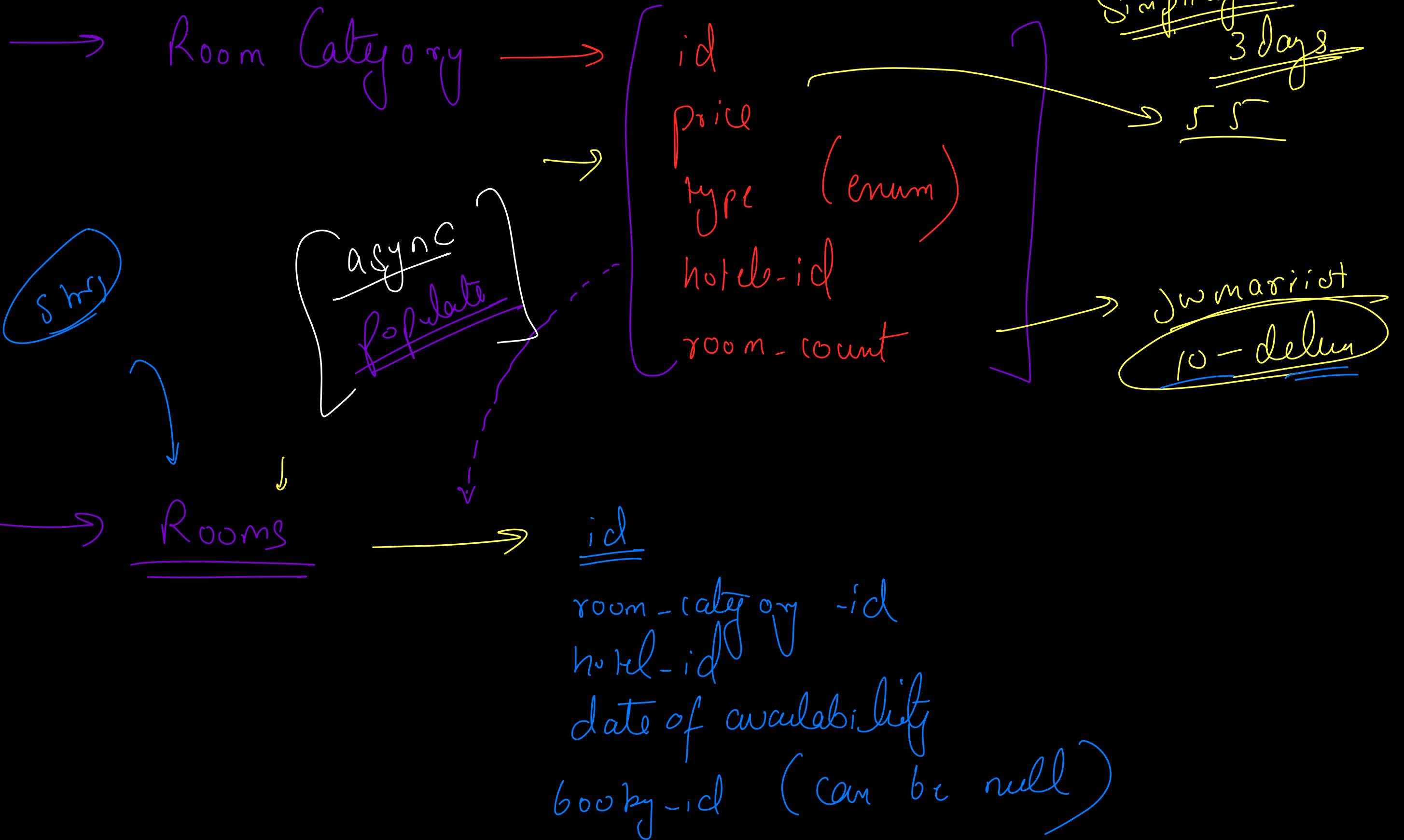
~~room~~
1 room belongs to a hotel.

1 : m

A

B → foreign by
a-id

A has many B
B belongs to one A



<u>room-id</u>	Room-category-id	hotel-id	date of avail	booky-id	<u>room-no</u>
1	55	10	Apr 2, 2025	null	124
2	55	10	Apr 3, 2025	null	124
3	"	10	Apr 4, 2025	null	124
4	"	10	Apr 2, 2025	null	125
5	"	10	Apr 3, 2025	null	125
⋮	↓	⋮	⋮		125
⋮		⋮	⋮		126
⋮		⋮	⋮		⋮
30		⋮			

→ select count(*) from rooms group by room-no
 where room-category-id == 55
 and date of availability between Apr 2, 2025, Apr 4, 2025 and

booky-id == null

→ index

→ Book table

↪ booky-id → ✓
user-id
created At
update At
Status

/

