**List all the hotels that have room availability from "this date" to "last date" at a particular location.**

Relational Algebra:

r1 -> ρ(b, booking) RIGHT ⋈<b.bid = bfh.bid> ρ(bfh, booking\_for\_hotel)

r2 -> Π(hotelid, room\_no) (σ tripstart\_date NOT BETWEEN '2020-12-30' AND '2020-12-31' AND tripend\_date NOT BETWEEN '2020-12-30' AND '2020-12-31') AND r.status = 'AVAILABLE' AND l.city = 'Mumbai' GROUP BY h.hotelid (r1))

r3 -> ρ(h, hotel) ⋈<h.pincode = l.pincode> ρ(l, location) ⋈<h.hotelid = r.hotelid> ρ(r, room)

r4result -> Π(h.”Name”, ℱCOUNT(r.room\_no) -> rooms\_count) (σ (r.hotelid, r.room\_no) NOT IN (r2) AND r.status = 'AVAILABLE' AND l.city = 'Mumbai' (r3))

SQL Query & Output:

