

σ - select - choose tuples

\bowtie - join -

π - project - choose attributes

Suppose we have the following 4 relations:

HOTEL (hotel_no, hotel_name, hotel_city)

ROOM (room_no, hotel_no, room_type, room_price)

BOOKING (hotel_no, guest_no, bdate_from, bdate_to, room_no)

GUEST (guest_no, guest_name, guest_address)

1. List the number and name for all hotels

ans1 = π hotel_no, hotel_name HOTEL

2. List all single rooms with a price below \$50

ans2 = σ room_price < 50 & room_type = 'single' ROOM

3. List the numbers and names of all hotels in Melbourne

X3 = σ hotel_city = 'Melbourne' HOTEL

ans3 = π hotel_no, hotel_name X3

Or

ans3 = π hotel_no, hotel_name (σ hotel_city = 'Melbourne' HOTEL)

4. List all numbers and names of hotels which have a presidential suite room

X4a = σ room_type = 'presidential suite'

X4b = π hotel_no X4a

X4c = X4b \bowtie (π hotel_no, hotel_name HOTEL)