**Queries**

**1. All the users who have stayed in some place in less than 50 cost in a 2 bedroom apartment.**

SET SEARCH\_PATH TO PROJECT;

select fname,lname from users,guest,avails,listing,location,home where users.id=guest.guest\_id AND guest.guest\_id=avails.guest\_id

AND

avails.listing\_id=listing.listing\_id

AND

listing.listing\_id=home.listing\_id

AND

home.bedroom='2'

AND

listing.location\_id=location.location\_id

AND

listing.cost<=50;

**2. All the hosts who have more than 4.5 reviews and are offering a rented app 1bhk home in Thailand under less than 50$ cost.**

select \* from location

natural join

(select \* from listing natural join

(select listing\_id,avg(rating) from host\_reviews natural join listing group by listing\_id having avg(rating)>4.5)as r1 natural join home where cost<50 AND bedroom=1) as r1

where country='Thailand';

**3. Top 3 countries which have the lowest avg rent.**

Select avg(cost),country from listing natural join location group by country order by avg(cost) LIMIT 3;

**4. Given a set of amenities, find out the listings agreeing to all of them in less than 50 cost price in the month of december in Kasukabe.**

select \* from listing NATURAL JOIN location

NATURAL JOIN

(select listing\_id from amenities\_provided where amenity\_name = 'Breakfast' OR amenity\_name = 'Dinner' OR amenity\_name = 'Merchandise' group by listing\_id) as r1

where cost <= 50

AND city = 'Kasukabe'

AND from\_date <= '2017-12-01'::date

AND to\_date > '2017-12-31'::date ;

**5. Find out the total number of listings for each country having review less than 3 stars.**

Select count(\*),country from

(Select avg(rating) as rating,listing\_id from listing natural join host\_reviews group by listing\_id) as r1

natural join location where rating<3 group by country;

**6. List all the experiences by user ‘Gav’ involving Chicago as a location under category Scuba Diving.**

Select \* from

((Select \* from users join listing on(users.id=listing.host\_id) where fname='Gav' ) as r1

join

experience on (r1.listing\_ID=experience.listing\_ID) AND experience.category='Scuba Diving') as r2

join

Location on(r2.location\_id=location.location\_id AND location.city='Chicago');

**7. List all private rooms in Oslo for tomorrow in less than 50$ for 2 occupants.**

select \* from listing NATURAL JOIN

(Select \* from Location

NATURAL JOIN

(Select \* from home NATURAL JOIN listing where maximum\_guests>=2 AND cost<=50 and type='Private Room' AND maximum\_guests>=2) as r1 where city='Oslo') as r2

where to\_date>= '2017-11-11'::date;

**8. Find the places which has been mentioned the most in guidebooks.**

Select count(\*) as timesMentioned,place\_name from guidebook

NATURAL JOIN place group by place\_name order by timesMentioned;

**9. Find the places not mentioned in any guidebook.**

Select \* from location NATURAL JOIN

(select location\_id from location where location\_id NOT IN (select location\_id from place)) as r2;

**10. Find all the users who have stayed in more than 3 places and have received a avg rating of more than 4.**

SELECT \* FROM (((Select guest\_ID from avg\_guest\_rating where avg>=4

INTERSECT

Select guest\_ID from avails group by guest\_ID having count(\*)>=3) AS R1 JOIN avails ON (R1.guest\_id=avails.guest\_id)) as R2 JOIN listing ON (r2.listing\_id=listing.listing\_id)) as r3 JOIN location on (r3.location\_id=location.location\_id);

**11. Find all the city tour experiences available in Russia in the next month.**

Select \* From listing

NATURAL JOIN

(Select listing\_ID from listing where from\_date <= '2017-12-01'::date AND to\_date > '2017-12-31'::date

INTERSECT

Select listing\_ID from experience NATURAL JOIN location where country='Russia' AND category='City Tour' ) AS r1;

**12. Find all the homes which have at least 3 bedrooms and have a ‘Concert’ type experience in the same city.**

SELECT \* from home NATURAL JOIN

listing as L JOIN (SELECT location\_id from location NATURAL JOIN

listing NATURAL JOIN

(SELECT \* from experience where Category='Concert' ) as r1) as r2

ON (L.location\_id = r2.location\_id) where Bedroom >= 3;

**13. Find all the users who want a 2 room ‘Entire Home’ and also wants the experience ‘Scuba Diving’, given that a particular user has 3 friends.**

select id from wishlist as w NATURAL JOIN

(select listing\_id from home where bedroom = 2 AND type = 'Entire Home' AND Maximum\_Guests >= 4) as r1

INTERSECT

select id from wishlist as w NATURAL JOIN

(select listing\_id from experience where Category = 'Scuba Diving' AND Group\_Size >= 4) as r2;

**14. No of people from Thailand who visited USA last year.**

Select \* from

Users

JOIN

(Select \* from avails JOIN listing on avails.listing\_id=listing.listing\_id NATURAL JOIN location where country='United States' AND extract(year from avails.to\_date)+1=extract(year from now()::date) ) AS r1

On (id=r1.guest\_ID)

where nationality='Thailand';

**15. Given a user name find all the places that he has visited.**

SELECT city, country FROM

(select \* from avails join listing on (avails.listing\_id = listing.listing\_id)) as r1 join

location on (r1.location\_id = location.location\_id) where guest\_id =12;

**16. All the guest living currently in a particular listing.**

select users.\*,guest.\* from users JOIN

guest ON (id = guest\_id) NATURAL JOIN

(select guest\_id from avails

where '2016-12-29'::date >= from\_date AND '2016-12-29'::date <= to\_date) as r1;

**17. Which month had the most number of people travelling?**

select count(\*),r1.month from (select extract(month from to\_date) as month from avails) as r1 group by month order by count(\*) desc LIMIT 1;

**18. Output host ids that have listings in United States and had more than 10 guests in 2016, that do not have the nationality of either China or Russia.**

select distinct host\_id from users join

(select \* from avails JOIN

(select \* from listing NATURAL JOIN

(select host\_id,sum(no\_of\_people) from avails as a

JOIN listing as l ON (a.listing\_id = l.listing\_id)

NATURAL JOIN location

where country = 'United States' AND extract(YEAR from l.from\_date) = 2016

group by host\_id having sum(no\_of\_people) >= 3 ) as r2) as r1 on avails.listing\_id=r1.listing\_id) as r3 on r3.guest\_id =users.id

AND nationality!='China' AND nationality!='Russia';

**19. Country-wise most wished location id, thus name of places.**

select place\_name from place where location\_id in

(select location\_id from location where country =

(select country from wishlist NATURAL JOIN listing NATURAL JOIN location

group by country order by count(\*) desc LIMIT 1));