```sql
/*1. What is the most common room type in NYC Airbnb listings?*/
SELECT room_type,
       COUNT(booked_days_365) AS total_booked_days
FROM   reviews
       JOIN room_types
         ON reviews.listing_id = room_types.listing_id
GROUP  BY room_type
ORDER  BY total_booked_days DESC;

OUTPUT:
room_type                total_booked_days
entire home/apt               13266
private room                  11356
shared room                   587

Ans: entire home/apt


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/*2. What is the average price of a listing by room type?*/
SELECT room_type,
       ROUND(AVG(price),2) AS avg_price
FROM   prices
       JOIN room_types
         ON prices.listing_id = room_types.listing_id
GROUP  BY room_type;

OUTPUT:
room_type                avg_price
shared room               53.65
entire home/apt          197.17
private room              81.67

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/*3. Which borough has the highest average price per month?*/

SELECT borough,
       ROUND(AVG(price_per_month)) AS avg_price_month
FROM   prices
GROUP  BY borough
ORDER  BY avg_price_month DESC;

OUTPUT:
borough                  avg_price_month
Manhattan                5597
```

```
Brooklyn                    3710
Queens              2823
Staten Island       2617
Bronx                2410


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/*4. How many listings of each room type are in each borough?*/

SELECT room_type,
       borough,
       Count(prices.listing_id) AS No_of_listings
FROM   prices
       JOIN room_types
         ON prices.listing_id = room_types.listing_id
GROUP  BY borough,
          room_type;

room_type               borough             no_of_listings
entire home/apt          Staten Island           133
private room             Manhattan               3901
shared room              Brooklyn                187
shared room              Staten Island           2
shared room              Manhattan               251
entire home/apt          Brooklyn                5367
private room             Bronx                   403
private room             Brooklyn                4906
shared room              Queens                  112
entire home/apt          Queens                  1335
private room             Staten Island           132
shared room              Bronx                   33
private room             Queens                  2009
entire home/apt          Bronx                   261
entire home/apt          Manhattan               6170


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/* 5. How many listings in each room type category have a price of over $500
per night?*/

SELECT room_type,
       COUNT(prices.listing_id)
FROM   prices
       JOIN room_types
         ON prices.listing_id = room_types.listing_id
WHERE  price > 500
```

```
GROUP  BY room_type;

OUTPUT:
room_type              count
shared room            1
entire home/apt            395
private room           19


i did not use HAVING as per the hint given

SELECT room_type, COUNT(prices.listing_id) AS count_listings
FROM prices
JOIN room_types
ON prices.listing_id = room_types.listing_id
GROUP BY room_type
HAVING MIN(price) > 500;
TICKET SUBMITTED: NO NEED HAVING

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/* 6. What is the distribution of listing prices by borough?*/

SELECT borough,
       MIN(price) AS min_price,
       MAX(price) AS max_price,
       AVG(price) AS avg_price
FROM   prices
GROUP  BY borough;

OUTPUT:
borough                     min_price              max_price
  avg_price
Queens                      10                     2600
92.81394676
Brooklyn                    10                     7500
121.9746654
Staten
Island           13                      300                    86.044
94382
Manhattan                   10                     5100
184.0006782
Bronx                       20                     670
 79.241033


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```

```sql
/* 7. What is the estimated amount of revenue generated by hosts in each
borough?*/
SELECT  borough,
        SUM(price * booked_days_365) AS total_revenue
FROM    prices
        JOIN reviews
          ON prices.listing_id = reviews.listing_id
GROUP   BY borough;
```

OUTPUT:

borough	total_revenue
Queens	58404083
Brooklyn	279130240
Staten Island	3443919
Manhattan	393420567
Bronx	9324180

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```sql
/* 8. What is the average price per month for listings in each neighborhood?*/


SELECT  neighbourhood,
        room_type,
        AVG(price_per_month) AS avg_price_per_month
FROM    prices
        JOIN room_types
          ON prices.listing_id = room_types.listing_id
GROUP   BY neighbourhood,
          room_type
ORDER   BY avg_price_per_month DESC;
```

OUTPUT:

neighbourhood	room_type	avg_price_per_month
Sea Gate	entire home/apt	24485.41667
Tribeca	entire home/apt	13707.575
Bayside	entire home/apt	12133.48485
Flatiron District	entire home/apt	11766.18056
SoHo	entire home/apt	11674.97047
NoHo	entire home/apt	10488.2906

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```sql
/* 9. How many listings have no reviews?*/
```

```sql
SELECT COUNT(prices.listing_id) AS total_listing
FROM    prices
        LEFT JOIN reviews
                ON prices.listing_id = reviews.listing_id
WHERE   reviews.listing_id IS NULL


OUTPUT:
0 (Though not sure)



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/* 10.How do the estimated book days correlate with the price of an
Airbnb listing in New York City?*/

SELECT CORR(price, booked_days_365) AS correlation
FROM    prices p
        LEFT JOIN reviews r
                ON p.listing_id = r.listing_id


OUTPUT:
-0.0796



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```