GROUP 18
Name - Tejas Ingle

1. Find out the average rental price for every type of room available on the app/website.

Athens-

```
select  avg(price) as avg_hotel , (select  avg(price) from tlisting
where room_type = 'Shared Room') as shared_avg ,
(select  avg(price) as avg_hotel
from tlisting
where room_type = 'Private Room') as avg_room , (select  avg(price)
from tlisting
where room_type = 'Entire home/apt') as avg_apt
from alisting
where room_type = 'Hotel Room'
```

Thessaloniki

```
select  avg(price) as avg_hotel , (select  avg(price) from tlisting
where room_type = 'Shared Room') as shared_avg ,
(select  avg(price) as avg_hotel
from tlisting
where room_type = 'Private Room') as avg_room , (select  avg(price)
from tlisting
where room_type = 'Entire home/apt') as avg_apt
from tlisting
where room_type = 'Hotel Room'
```

2. Analyze the trend between property vacancy rate for all the months in the year 2022.

Athens

```
select year(date) as year_ , month(date) as month_ , count(available) as availability_
from atavb
where available = 1 and year(date) = 2022
group by  year(date) , month(date)
order by availability_ desc
```

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```
select year(date) as year_ , month(date) as month_ , count(available) as availability_
from tavb
where available = 1 and year(date) = 2022
group by  year(date) , month(date)
order by availability_ desc
```

3. Find the monthly property-type vacancy and also find out if there is any trend in average price across the months.

Athens

```
select a.property_type ,month(d.date)
as month,avg(a.price) as avg_price  ,count(d.available) as number_of_availabilty
from atavb as d inner join alisting as a on d.listing_id= a.id
where d.available = 1
group by a.property_type,month(d.date)
order by a.property_type
```

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```
select a.property_type ,month(d.date)
as month,avg(a.price) as avg_price  ,count(d.available) as number_of_availabilty
from tavb as d inner join tlisting as a on d.listing_id= a.id
where d.available = 1
group by a.property_type,month(d.date)
order by a.property_type
```

4. Find out the top 5 best selling/rented property-types available on the app/website .

Athens

```
select top 5 t2.property_type ,  count(available) as availability_
from atavb t1 inner join alisting t2 on t2.id = t1.listing_id
where available = 0 and year(date) = 2022
group by  t2.property_type
order by availability_ desc
```

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```
select top 5 t2.property_type ,  count(available) as availability_
from tavb t1 inner join tlisting t2 on t2.id = t1.listing_id
where available = 0 and year(date) = 2022
group by  t2.property_type
order by availability_ desc
```

5. Analyze if there is any relation between hosts response time and property being rented.

Athens

```
select t1.host_response_time , count(t3.available) as sold_rented
from ahost t1 inner join alisting t2 on t1.host_id = t2.host_id inner join atavb t3 on t2.id =
t3.listing_id
where t3.available = 0 and not t1.host_response_time = 'null'
group by t1.host_response_time
```

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```
select t1.host_response_time , count(t3.available) as not_available
from thost t1 inner join tlisting t2 on t1.host_id = t2.host_id inner join tavb t3 on t2.id =
t3.listing_id
where t3.available = 0 and not t1.host_response_time = 'null'
group by t1.host_response_time
```

6. Categorize the properties into different categories based on their rating and get count of each category

Athens

```
select
case
when review_scores_rating <= 3.0 then 'poor'
when review_scores_rating < 4.0 then 'average'
when review_scores_rating >= 4.7 then 'premium'
when review_scores_rating >= 4.0 then 'good'
else 'not_rated'
end as rating_category , count(*) as total_property , avg(review_scores_rating) as avg_rating
from alisting
group by
case
when review_scores_rating <= 3.0 then 'poor'
when review_scores_rating < 4.0 then 'average'
when review_scores_rating >= 4.7 then 'premium'
when review_scores_rating >= 4.0 then 'good'
else 'not_rated'
end
order by total_property desc
```

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```
select
case
when review_scores_rating <= 3.0 then 'poor'
when review_scores_rating < 4.0 then 'average'
when review_scores_rating >= 4.7 then 'premium'
when review_scores_rating >= 4.0 then 'good'
else 'not_rated'
end as rating_category , count(*) as total_property , avg(review_scores_rating) as avg_rating
from tlisting
group by
case
when review_scores_rating <= 3.0 then 'poor'
when review_scores_rating < 4.0 then 'average'
when review_scores_rating >= 4.7 then 'premium'
when review_scores_rating >= 4.0 then 'good'
else 'not_rated'
end
order by total_property desc
```

7. Find the property renting rate area-wise as well as their average price.

Athens

```
select neighbourhood_cleansed , avg(t1.price) as avg_price , count(available) as
rented_property
from alisting t1 inner join atavb t2 on t1.id = t2.listing_id
where available = 0
group by neighbourhood_cleansed
order by rented_property desc
```

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```
select neighbourhood_cleansed , avg(t1.price) as avg_price , count(available) as
rented_property
from tlisting t1 inner join tavb t2 on t1.id = t2.listing_id
where available = 0
group by neighbourhood_cleansed
order by rented_property desc
```

8. Analyze the trend in relation with rented properties with vacant properties between superhosts vs non superhosts.

Athens

```
select 'superhost' as host_type,  count(available) as rented_property ,
(
select  count(available)
from ahost t0  inner join alisting t1 on t0.host_id = t1.host_id inner join atavb t2 on t1.id =
t2.listing_id
where t0.host_is_superhost = 1 and t2.available = 1

)  as vacant_property
from thost t0  inner join tlisting t1 on t0.host_id = t1.host_id inner join tavb t2 on t1.id =
t2.listing_id
where t0.host_is_superhost = 1 and t2.available = 0

Union

select 'nonsuperhost' as host_type , count(available) as rented_property ,
(
select  count(available)
from ahost t0  inner join alisting t1 on t0.host_id = t1.host_id inner join atavb t2 on t1.id =
t2.listing_id
where t0.host_is_superhost = 0 and t2.available = 1

)  as vacant_property
from thost t0  inner join tlisting t1 on t0.host_id = t1.host_id inner join tavb t2 on t1.id =
t2.listing_id
where t0.host_is_superhost = 0 and t2.available = 0
```

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```
select 'superhost' as host_type,  count(available) as rented_property ,
(
select  count(available)
from thost t0  inner join tlisting t1 on t0.host_id = t1.host_id inner join tavb t2 on t1.id =
t2.listing_id
where t0.host_is_superhost = 1 and t2.available = 1

)  as vacant_property
from thost t0  inner join tlisting t1 on t0.host_id = t1.host_id inner join tavb t2 on t1.id =
t2.listing_id
```

```
where t0.host_is_superhost = 1 and t2.available = 0


union


select 'nonsuperhost' as host_type , count(available) as rented_property ,
(
select  count(available)
from thost t0  inner join tlisting t1 on t0.host_id = t1.host_id inner join tavb t2 on t1.id =
t2.listing_id
where t0.host_is_superhost = 0 and t2.available = 1

)  as vacant_property
from thost t0  inner join tlisting t1 on t0.host_id = t1.host_id inner join tavb t2 on t1.id =
t2.listing_id
where t0.host_is_superhost = 0 and t2.available = 0
```

9. Find out the correlation between the properties which are instantly bookable vs not instantly bookable.
   Also analyze the numbers of properties which are rented vs properties which are vacant

Athens

```
select count(t1.instant_bookable) as instantly_bookable ,
(
select count(t2.available)
from alisting t1 inner join atavb t2 on t1.id = t2.listing_id
where t1.instant_bookable = 1 and available = 0
) as rented
,
(
select count(t2.available)
from alisting t1 inner join atavb t2 on t1.id = t2.listing_id
where t1.instant_bookable = 1 and available = 1
) as vacant
,
(
select count(t1.instant_bookable)
from alisting t1 inner join atavb t2 on t1.id = t2.listing_id
where t1.instant_bookable = 0
)  as non_instantlynookable
,
(
select count(t2.available)
from alisting t1 inner join atavb t2 on t1.id = t2.listing_id
where t1.instant_bookable = 0 and available = 0
) as rented
,
(
select count(t2.available)
from alisting t1 inner join atavb t2 on t1.id = t2.listing_id
where t1.instant_bookable = 0 and available = 1
) as vacant
from alisting t1 inner join atavb t2 on t1.id = t2.listing_id
where t1.instant_bookable = 1
```

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```
select count(t1.instant_bookable) as instantly_bookable ,
(
select count(t2.available)
from tlisting t1 inner join tavb t2 on t1.id = t2.listing_id
where t1.instant_bookable = 1 and available = 0
) as rented
,
(
select count(t2.available)
from tlisting t1 inner join tavb t2 on t1.id = t2.listing_id
where t1.instant_bookable = 1 and available = 1
) as vacant
,
(
select count(t1.instant_bookable)
from tlisting t1 inner join tavb t2 on t1.id = t2.listing_id
where t1.instant_bookable = 0
)  as non_instantlynookable
,
(
select count(t2.available)
from tlisting t1 inner join tavb t2 on t1.id = t2.listing_id
where t1.instant_bookable = 0 and available = 0
) as rented
,
(
select count(t2.available)
from tlisting t1 inner join tavb t2 on t1.id = t2.listing_id
where t1.instant_bookable = 0 and available = 1
) as vacant
from tlisting t1 inner join tavb t2 on t1.id = t2.listing_id
where t1.instant_bookable = 1
```