

OTODOM Data Analysis

Analysis

- **What is the average rental price of 1 room, 2 room, 3 room and 4 room apartments in some of the major cities in Poland? Arrange the result such that avg rent for each type of room is shown in separate column.**

```
select city, round(avg_rent_1R,2) as avg_rent_1R
, round(avg_rent_2R,2) as avg_rent_2R, round(avg_rent_3R,2) as avg_rent_3R
, round(avg_rent_4R,2) as avg_rent_4R
from (
select city,no_of_rooms,price_new
from OTODOM_DATA_TRANSFORMED
where city in ('Warszawa', 'Wrocław', 'Kraków', 'Gdańsk', 'Katowice', 'Łódź')
and apartment_flag = 'apartment'
and is_for_sale='false'
and no_of_rooms in (1,2,3,4)) x
pivot
(
avg(price_new)
for no_of_rooms in ('1','2','3','4')
)
as p(city,avg_rent_1R, avg_rent_2R, avg_rent_3R, avg_rent_4R)
order by avg_rent_4R desc;
```

OUTPUT

	CITY	AVG_RENT_1R	AVG_RENT_2R	AVG_RENT_3R	AVG_RENT_4R
1	Gdańsk	2,317.78	3,365.25	5,209.02	10,891.38
2	Łódź	2,569.66	3311.50	6,004.67	10,089.29
3	Warszawa	2,558.32	3511.20	5,241.61	9,397.89
4	Wrocław	2,285.19	3,402.99	4,607.45	8580.00
5	Kraków	2,543.25	3,304.67	5,359.33	8,376.05
6	Katowice	2,142.38	3,690.07	5,396.53	7,768.75

- ***What size of an apartment can I expect with a monthly rent of 3000 to 4000 PLN in different major cities of Poland?***

```
select city, Round(avg(surface_new),2) avg_area
from otodom_data_transformed
where city in ('Warszawa', 'Wrocław', 'Kraków', 'Gdańsk', 'Katowice', 'Łódź')
and apartment_flag = 'apartment'
and is_for_sale = 'false'
and price_new between 3000 and 4000
group by city
order by avg_area;
```

OUTPUT

	CITY	AVG_AREA
1	Kraków	52.33
2	Wrocław	53.01
3	Gdańsk	53.53
4	Łódź	53.58
5	Warszawa	54.39
6	Katowice	55.53

- ***What are the most expensive apartments in major cities of Poland? Display the ad title in English along with city, suburb, cost, size.***

```
with cte as
(select city, max(price_new) max_price, min(price_new) min_price
from otodom_data_transformed
where city in ('Warszawa', 'Wrocław', 'Kraków', 'Gdańsk', 'Katowice', 'Łódź')
and apartment_flag = 'apartment'
and is_for_sale = 'true'
group by city)
select x.rn, x.title_eng, x.city, x.suburb, x.price_new, x.surface_new, x.url
from otodom_data_transformed x
join cte on cte.city=x.city and cte.max_price=x.price_new
where apartment_flag = 'apartment'
```

```
and is_for_sale = 'true'
order by x.city,x.price_new;
```

OUTPUT

	RN	TITLE_ENG	CITY	SUBURB	PRICE_NEW
1	23,764	2pok in Śródmieście, very close to the old town	Gdańsk	Śródmieście	15000000.00
2	17,151	2-room apartment 42m2 + loggia without commission	Katowice	Koszutka	17720000.00
3	55,968	Apartment in a representative tenement house!	Kraków	Grzegórzki	16000000.00
4	55,351	Delux apartment in the heart of Powiśle	Warszawa	Wesoła	20000000.00
5	32,257	3-room apartment 55m2 + 2 gardens	Wrocław	Przedmieście Oławskie	9450000.00
6	25,793	3 rooms 2 20m2 balconies ideal for investments.	Łódź	Łódź-Polesie	7500000.00

...	PRICE_NEW	SURFACE_NEW	URL
	15000000.00	350	https://www.otodom.pl/pl/oferta/dom-350-m-warszawa-ID4eb1H
	17720000.00	226	https://www.otodom.pl/pl/oferta/apartament-fort-cze-z-tarasem-na-dachu-500m2
	16000000.00	560	https://www.otodom.pl/pl/oferta/ultra-nowoczesny-dom-wykonczony-pod-klucz-ID4IZI
	20000000.00	577	https://www.otodom.pl/pl/oferta/topowa-lokalizacja-apartament-z-basenem-ID4IZI
	9450000.00	349	https://www.otodom.pl/pl/oferta/ks-witolda-cale-10-pietro-penthouse-350mkw-ID4IZI
	7500000.00	570	https://www.otodom.pl/pl/oferta/ekskluzywna-willa-obok-lasku-wolskiego-ID4iLkz

- **What is the percentage of private & business ads on otodom?**

```
with all_ads as
(select count(1) tot_ads from otodom_data_transformed),
ads_type as
(select advertiser_type
, sum(case when advertiser_type='business' then 1 end) as business_ads
, sum(case when advertiser_type='private' then 1 end) as private_ads
from otodom_data_transformed
group by advertiser_type)
select concat(round((max(business_ads) * 100)/max(tot_ads),2),'%') as business_ads_perc
, concat(round((max(private_ads) * 100)/max(tot_ads),2),'%') as private_ads_perc
from ads_type ty
cross join all_ads al ;
```

OUTPUT

	BUSINESS_ADS_PERC	PRIVATE_ADS_PERC
1	89.99%	10.01%

- **What is the avg sale price for apartments within 50-70 m2 area in major cities of Poland?**

```
select city, round(avg(price_new),2) as avg_sale_price
from otodom_data_transformed
where city in ('Warszawa', 'Wrocław', 'Kraków', 'Gdańsk', 'Katowice', 'Łódź')
and apartment_flag = 'apartment'
and is_for_sale = 'true'
and no_of_rooms = 3
and surface_new between 50 and 70
group by city
order by avg_sale_price desc;
```

OUTPUT

	CITY	AVG_SALE_PRICE
1	Gdańsk	655602.10
2	Katowice	653,266.15
3	Warszawa	651,607.37
4	Łódź	649,562.68
5	Wrocław	646,953.69
6	Kraków	637209.10

- **What is the average rental price for apartments in Warsaw in different suburbs? Categorize the result based on surface area 0-50, 50-100 and over 100.**

```
with cte1 as
(select a.*
, case when surface_new between 0 and 50 then '0-50'
```

```

when surface_new between 50 and 100 then '50-100'
when surface_new > 100 then '>100'
end as area_category
from otodom_data_transformed a
where city = 'Warszawa'
and apartment_flag = 'apartment'
and is_for_sale = 'false'
and suburb is not null ),
cte2 as
(select suburb
, case when area_category = '0-50' then avg(price_new) end as avg_price_upto50
, case when area_category = '50-100' then avg(price_new) end as avg_price_upto100
, case when area_category = '>100' then avg(price_new) end as avg_price_over100
from cte1
group by suburb,area_category)
select suburb
, round(max(avg_price_upto50),2) as avg_price_upto_50
, round(max(avg_price_upto100),2) as avg_price_upto_100
, round(max(avg_price_over100),2) as avg_price_over_100
from cte2
group by suburb
order by suburb;

```

- ***Which are the top 3 most luxurious neighborhoods in Warsaw? Luxurious neighborhoods can be defined as suburbs which has the most no of of apartments costing over 2M in cost.***

```

select suburb, luxurious_apartments
from (
select suburb, count(1) luxurious_apartments
, rank() over(order by luxurious_apartments desc ) as rn
from otodom_data_transformed
where city = 'Warszawa'
and apartment_flag = 'apartment'
and is_for_sale = 'true'
and price_new > 2000000
and suburb is not null
group by suburb) x
where x.rn <= 3;

```

OUTPUT

	SUBURB	... LUXURIOUS_APARTMENTS
1	Mokotów	32
2	Wola	31
3	Praga-Południe	23

- **Most small families would be looking for apartment with 40-60 m2 in size. Identify the top 5 most affordable neighborhoods in Warsaw.**

```
select suburb, avg_price, no_of_apartments
from (
select suburb, round(avg(price_new),2) avg_price, count(1) as no_of_apartments
, rank() over(order by avg_price ) as rn
from otodom_data_transformed
where city = 'Warszawa'
and apartment_flag = 'apartment'
and is_for_sale = 'false'
and surface_new between 40 and 60
and suburb is not null
group by suburb) x
where x.rn <= 5;
```

OUTPUT

	SUBURB	AVG_PRICE	NO_OF_APARTMENTS
1	Ursus	2,903.13	23
2	Wawer	2,982.22	9
3	Śródmieście	3,042.96	27
4	Bielany	3050.50	18
5	Praga-Północ	3,083.45	8

- **Which suburb in Warsaw has the most and least no of private ads?**

```

select distinct
first_value(suburb||' - '||count(1)) over(order by count(1)) as least_private_ads
, last_value(suburb||' - '||count(1)) over(order by count(1)) as most_private_ads
from otodom_data_transformed
where city = 'Warszawa'
and advertiser_type = 'private'
and suburb is not null
group by suburb;

```

OUTPUT

	LEAST_PRIVATE_ADS	MOST_PRIVATE_ADS
1	Wesoła - 1	Wola - 83

- ***What is the average rental price and sale price in some of the major cities in Poland?***

```

with cte as
(select city
, (case when is_for_sale='false' then round(avg(price_new),2) end) as avg_rental
, (case when is_for_sale='true' then round(avg(price_new),2) end) as avg_sale
from otodom_data_transformed
where city in ('Warszawa', 'Wrocław', 'Kraków', 'Gdańsk', 'Katowice', 'Łódź')
and apartment_flag = 'apartment'
group by city, is_for_sale)
select city, max(avg_rental) as avg_rental, max(avg_sale) as avg_sale
from cte
group by city
order by avg_rental desc;

```

OUTPUT

	CITY	AVG_RENTAL	AVG_SALE
1	Wrocław	5873.10	874,494.17
2	Łódź	5,791.67	805877.90
3	Kraków	5,702.22	857,486.54
4	Warszawa	5,671.75	849,353.32
5	Gdańsk	5,470.21	850,716.61
6	Katowice	5,155.22	942,022.77