

sorting

1. find top 5 samsung phones with biggest screen size

```
SELECT model,screen_size FROM yogesh.smartphones  
where brand_name= 'samsung'  
order by screen_size desc limit 5
```

2. sort all the phone with in decending order of number of total cameras

```
SELECT model,num_front_cameras + num_rear_cameras as 'total_cameras'  
FROM yogesh.smartphones  
order by total_cameras desc
```

3. sort data on the basis of ppl in decreasing order

```
SELECT model,  
round(sqrt(resolution_width*resolution_width +  
resolution_height*resolution_height)/screen_size,2) as 'ppi'  
FROM yogesh.smartphones  
order by ppi desc
```

4. find the phone with 2nd largest battery

```
SELECT model,battery_capacity FROM yogesh.smartphones  
order by battery_capacity desc limit 1,1
```

5. find the name and rating of the worst rated apple phone

```
SELECT model,rating FROM yogesh.smartphones  
where brand_name = 'apple'
```

MYSQL

order by rating asc limit 1

6. sort phones alphabetically and then on the basis of rating in desc order

```
SELECT model,rating FROM yogesh.smartphones
```

order by model asc, rating desc

7. sort phones alphabetically and then on the basis of price in asc order

```
SELECT model,price FROM yogesh.smartphones
```

order by model asc,price desc

grouping

1. group smartphones by brand and get the count, average price, max rating, avg screen size and avg battery capacity--> group by brand

```
SELECT brand_name,count(*) as 'num_phones',  
avg(price) as 'avg_price',  
max(rating) as 'max_rating',  
round(avg(screen_size),2) as 'avg_screen_size',  
round(avg(battery_capacity),2) as 'battery_capacity'  
FROM yogesh.smartphones
```

2. group smartphones by whether they have an nfc and get the average price and rating

MYSQL

```
SELECT has_nfc,  
avg(price) as 'avg price',  
avg(rating) as 'avg rating'  
FROM yogesh.smartphones  
group by has_nfc
```

3. group smartphones by the brand and processor brand and get the count of models and the average primary camera resolution (rear)

```
select brand_name,  
processor_brand,  
count(*) as 'num_phones',  
round(avg(primary_camera_rear),2) as 'avg primary camera'  
from yogesh.smartphones  
group by brand_name,processor_brand
```

4. find top 5 most costly phone brands

```
SELECT  
brand_name,round(avg(price),2) as 'avg_price'  
FROM yogesh.smartphones  
group by brand_name  
order by avg_price desc limit 5
```

5. which brand makes the smallest screen smartphones

```
SELECT  
brand_name,round(avg(screen_size),2) as 'avg_screen_size'  
FROM yogesh.smartphones  
group by brand_name  
order by avg_screen_size asc limit 5
```

MYSQL

6. group smartphones by the brand , and find the brand with the highest number of models that have both nfc and an ir blaster.

```
SELECT brand_name,  
count(*) as 'num_model'  
FROM yogesh.smartphones  
where has_nfc = 'True' and has_ir_blaster = 'True'  
group by brand_name  
order by num_model desc limit 2
```

7. find all samsung 5g enabled smartphones and find out the avg price for NFC and non-nfc phones

```
select has_nfc,avg(price) as 'avg_price'  
from yogesh.smartphones  
where brand_name = 'samsung' and has_5g = 'true'  
group by has_nfc
```

having

1. find the avg rating of smartphone brands which have more than 20 phones

```
select brand_name,  
count(*) as 'count',  
avg(rating) as 'avg_rating'  
from yogesh.smartphones  
group by brand_name
```

MYSQL

having count>40

order by avg_rating desc

3. find the top3 brands with the higheest avg ram that have a refresh rate of at least 90 hz and fast charging available and consider brands which have less then 10 phones

```
select brand_name,avg(ram_capacity) as 'ram_capacity'
```

```
from yogesh.smartphones
```

```
where refresh_rate>90 and fast_charging_available=1
```

```
group by brand_name
```

```
having count(*)>10
```

```
order by ram_capacity desc limit 3
```

4. find the avg price of all the phone brands with avg rating >70 and num_phones more than 10 among all 5g enabled phone

```
select brand_name,
```

```
avg(price) as 'avg_price'
```

```
from yogesh.smartphones
```

```
where has_5g='True'
```

```
group by brand_name
```

```
having count(*)>10 and avg(rating)>70
```

```
order by avg_price desc
```