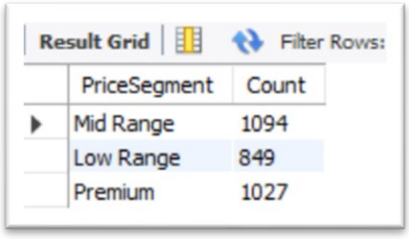
1. **identify distinct price segments for mobiles in India?**

Ans-

```
SELECT
  CASE
    WHEN `Selling Price` < 10000 THEN 'Low Range'
    WHEN `Selling Price` >= 10000 AND `Selling Price` < 20000 THEN 'Mid Range'
    WHEN `Selling Price` >= 20000 THEN 'Premium'
  END AS PriceSegment,
  COUNT(*) AS Count
FROM `flipkart mobile data`
GROUP BY PriceSegment;
```



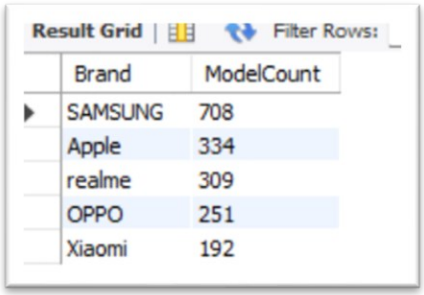
Result Grid | Filter Rows:

PriceSegment	Count
Mid Range	1094
Low Range	849
Premium	1027

2. **Which brands have the highest and lowest numbers of product offerings?**
   i)Brands with the highest number of product offering

Ans-

```
SELECT Brand, COUNT(*) AS ModelCount
FROM `flipkart mobile data`
GROUP BY Brand
ORDER BY ModelCount DESC
LIMIT 5;
```



Result Grid | Filter Rows:

Brand	ModelCount
SAMSUNG	708
Apple	334
realme	309
OPPO	251
Xiaomi	192

ii)Brands with the lowest number of product offering

Ans-

```
SELECT Brand, COUNT(*) AS ModelCount
FROM `flipkart mobile data`
GROUP BY Brand
ORDER BY ModelCount
LIMIT 5;
```

Result Grid | Filter Rows:

Brand	ModelCount
IQOO	5
Google Pixel	29
HTC	55
POCO	73
LG	98

3. Are there brands that dominate specific price ranges?

Ans –

```
SELECT
  CASE
    WHEN `Selling Price` < 10000 THEN 'Low Range'
    WHEN `Selling Price` >= 10000 AND `Selling Price` < 20000 THEN 'Mid Range'
    WHEN `Selling Price` >= 20000 THEN 'Premium'
  END AS PriceSegment,
  Brand,
  COUNT(*) AS ModelCount
FROM `flipkart mobile data`
GROUP BY PriceSegment, Brand
ORDER BY PriceSegment, ModelCount DESC;
```

Result Grid | Filter Rows:

PriceSegment	Brand	ModelCount
Low Range	SAMSUNG	189
Low Range	Nokia	116
Low Range	GIONEE	109
Low Range	Lenovo	81
Low Range	Infinix	73
Low Range	realme	69
Low Range	ASUS	50
Low Range	Xiaomi	45
Low Range	LG	35

4. **What are the most common combinations of memory and storage across different brands?**

Ans-

```
SELECT
  Brand,
  Memory,
  Storage,
  COUNT(*) AS ModelCount
FROM `flipkart mobile data`
GROUP BY Brand, Memory, Storage
ORDER BY ModelCount DESC
LIMIT 5;
```

Result Grid | Filter Rows:

Brand	Memory	Storage	ModelCount
SAMSUNG	6 GB	128 GB	107
SAMSUNG	4 GB	64 GB	87
SAMSUNG	8 GB	128 GB	84
realme	4 GB	64 GB	72
SAMSUNG	3 GB	32 GB	69

6.How does the pricing vary based on memory and storage configurations?

Ans-

```
SELECT
  Memory,
  Storage,
  AVG(`Selling Price`) AS AvgPrice
FROM `flipkart mobile data`
GROUP BY Memory, Storage
ORDER BY AvgPrice DESC;
```

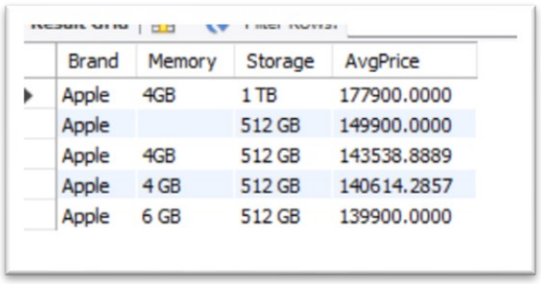
Result Grid | Filter Rows:

Memory	Storage	AvgPrice
4GB	1 TB	177900.0000
	512 GB	149900.0000
4GB	512 GB	143538.8889
4 GB	512 GB	140614.2857
6 GB	512 GB	139900.0000
	128 GB	119900.0000
12 GB	1 TB	117990.0000
16 GB	512 GB	116999.0000
12 GB	512 GB	113799.4000

7. Which brands are offering premium mobiles, and what are the common specifications of these premium models?

Ans-

```
SELECT
  Brand,
  Memory,
  Storage,
  AVG(`Selling Price`) AS AvgPrice
FROM `flipkart mobile data`
WHERE `Selling Price` >= 20000
GROUP BY Brand, Memory, Storage
ORDER BY AvgPrice DESC
LIMIT 5;
```

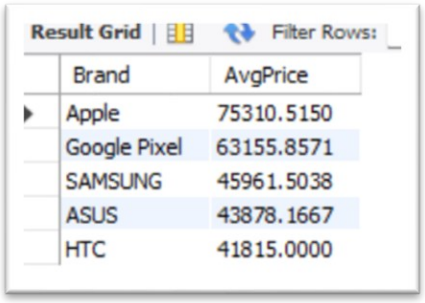


Brand	Memory	Storage	AvgPrice
Apple	4GB	1 TB	177900.0000
Apple		512 GB	149900.0000
Apple	4GB	512 GB	143538.8889
Apple	4 GB	512 GB	140614.2857
Apple	6 GB	512 GB	139900.0000

8. Top brands with the highest average selling prices for premium models.

Ans-

```
SELECT
  Brand,
  AVG(`Selling Price`) AS AvgPrice
FROM `flipkart mobile data`
WHERE `Selling Price` >= 20000
GROUP BY Brand
ORDER BY AvgPrice DESC
LIMIT 5;
```



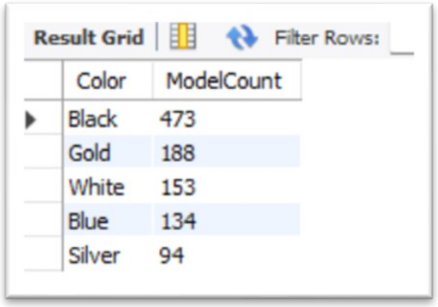
Result Grid | Filter Rows:

Brand	AvgPrice
Apple	75310.5150
Google Pixel	63155.8571
SAMSUNG	45961.5038
ASUS	43878.1667
HTC	41815.0000

9. What are the most commonly offered colors by all brands?

Ans-

```
SELECT
  Color,
  COUNT(*) AS ModelCount
FROM `flipkart mobile data`
GROUP BY Color
ORDER BY ModelCount DESC
LIMIT 5;
```



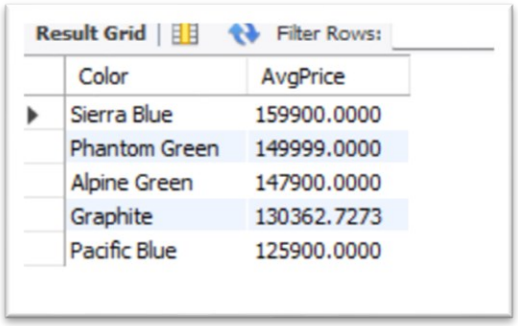
Result Grid | Filter Rows:

Color	ModelCount
Black	473
Gold	188
White	153
Blue	134
Silver	94

10. Is there a correlation between color popularity and pricing?

Ans-

```
SELECT
  Color,
  AVG(`Selling Price`) AS AvgPrice
FROM `flipkart mobile data`
GROUP BY Color
ORDER BY AvgPrice DESC
LIMIT 5;
```



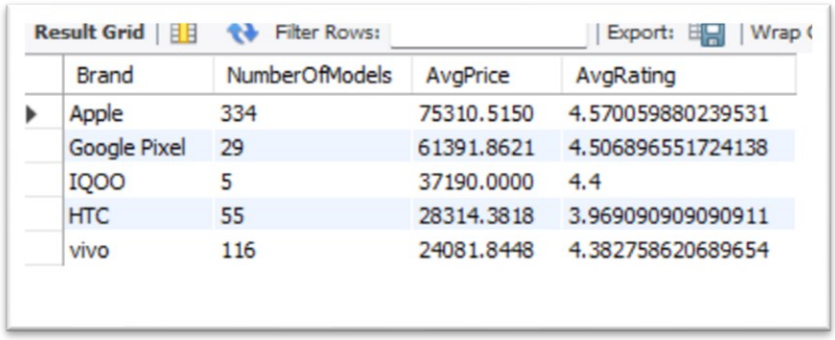
Result Grid | Filter Rows:

Color	AvgPrice
Sierra Blue	159900.0000
Phantom Green	149999.0000
Alpine Green	147900.0000
Graphite	130362.7273
Pacific Blue	125900.0000

11. Choose unique brands and compare them based on the number of models, average prices, and average ratings.

Ans-

```
SELECT
  Brand,
  COUNT(*) AS NumberOfModels,
  AVG(`Selling Price`) AS AvgPrice,
  AVG(Rating) AS AvgRating
FROM `flipkart mobile data`
GROUP BY Brand
ORDER BY AvgPrice DESC
LIMIT 5;
```



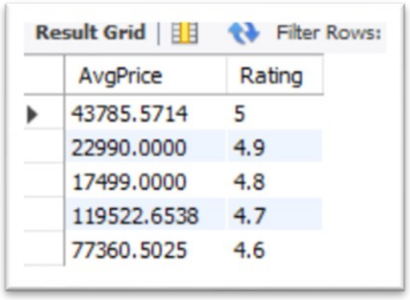
Result Grid | Filter Rows: | Export: | Wrap

Brand	NumberOfModels	AvgPrice	AvgRating
Apple	334	75310.5150	4.570059880239531
Google Pixel	29	61391.8621	4.506896551724138
IQOO	5	37190.0000	4.4
HTC	55	28314.3818	3.969090909090911
vivo	116	24081.8448	4.382758620689654

13. Do higher-rated mobiles tend to be more expensive?

Ans-

```
SELECT
  AVG(`Selling Price`) AS AvgPrice,
  Rating
FROM `flipkart mobile data`
WHERE Rating IS NOT NULL
GROUP BY Rating
ORDER BY Rating DESC LIMIT 5;
```



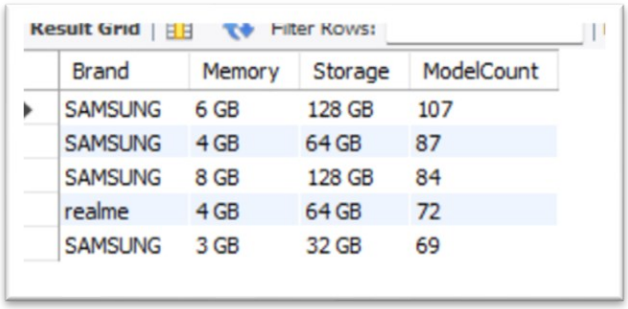
Result Grid | Filter Rows:

AvgPrice	Rating
43785.5714	5
22990.0000	4.9
17499.0000	4.8
119522.6538	4.7
77360.5025	4.6

15. Identify the most common specifications (memory, storage) across all brands.

Ans-

```
SELECT
  Memory,
  Storage,
  COUNT(*) AS ModelCount
FROM `flipkart mobile data`
GROUP BY Memory, Storage
ORDER BY ModelCount DESC
LIMIT 5;
```



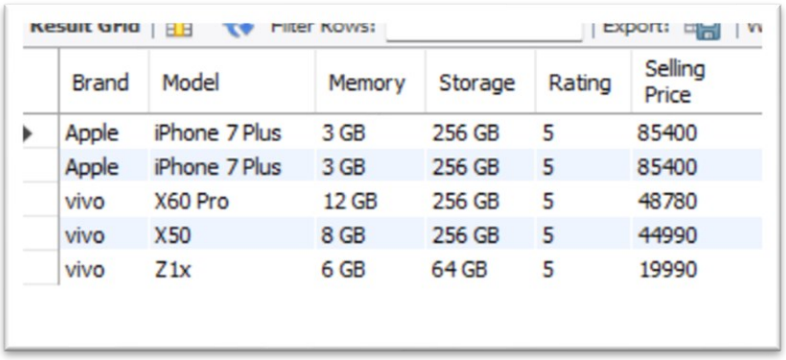
Result Grid | Filter Rows:

Brand	Memory	Storage	ModelCount
SAMSUNG	6 GB	128 GB	107
SAMSUNG	4 GB	64 GB	87
SAMSUNG	8 GB	128 GB	84
realme	4 GB	64 GB	72
SAMSUNG	3 GB	32 GB	69

16. Analyze the features of the top-rated mobiles.

Ans-

```
SELECT
  Brand,
  Model,
  Memory,
  Storage,
  Rating,
  `Selling Price`
FROM `flipkart mobile data`
WHERE Rating IS NOT NULL
ORDER BY Rating DESC, `Selling Price` DESC
LIMIT 5;
```



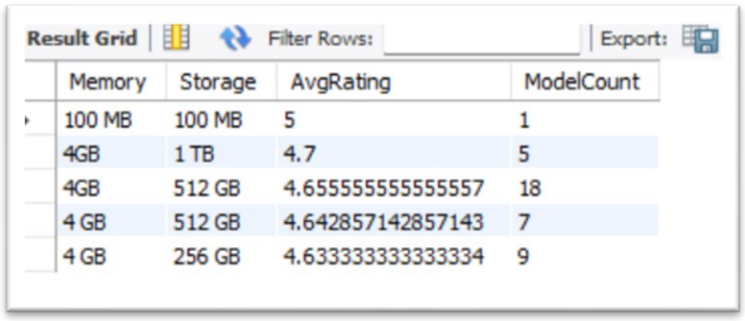
Result Grid | Filter Rows: | Export:

Brand	Model	Memory	Storage	Rating	Selling Price
Apple	iPhone 7 Plus	3 GB	256 GB	5	85400
Apple	iPhone 7 Plus	3 GB	256 GB	5	85400
vivo	X60 Pro	12 GB	256 GB	5	48780
vivo	X50	8 GB	256 GB	5	44990
vivo	Z1x	6 GB	64 GB	5	19990

17. What specifications do customers appreciate the most?

Ans-

```
SELECT
  Memory,
  Storage,
  AVG(Rating) AS AvgRating,
  COUNT(*) AS ModelCount
FROM `flipkart mobile data`
WHERE Rating IS NOT NULL
GROUP BY Memory, Storage
ORDER BY AvgRating DESC, ModelCount DESC
LIMIT 5;
```



Memory	Storage	AvgRating	ModelCount
100 MB	100 MB	5	1
4GB	1 TB	4.7	5
4GB	512 GB	4.655555555555557	18
4 GB	512 GB	4.642857142857143	7
4 GB	256 GB	4.633333333333334	9