

# SQL Queries for Mobile Data Analysis

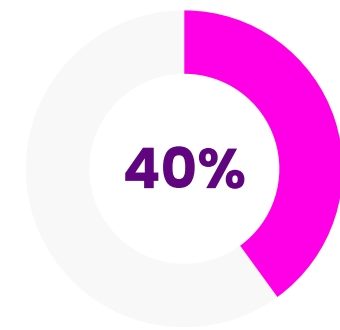
Exploring Insights from Mobile  
Dataset Using SQL

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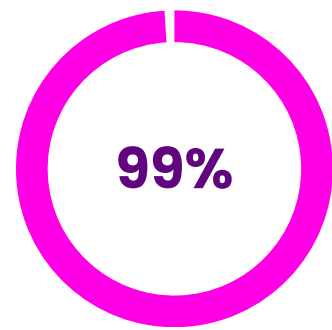


# Objective of the Analysis

- This project explores mobile dataset using SQL queries
- We analyze brands, models, pricing, and specifications.



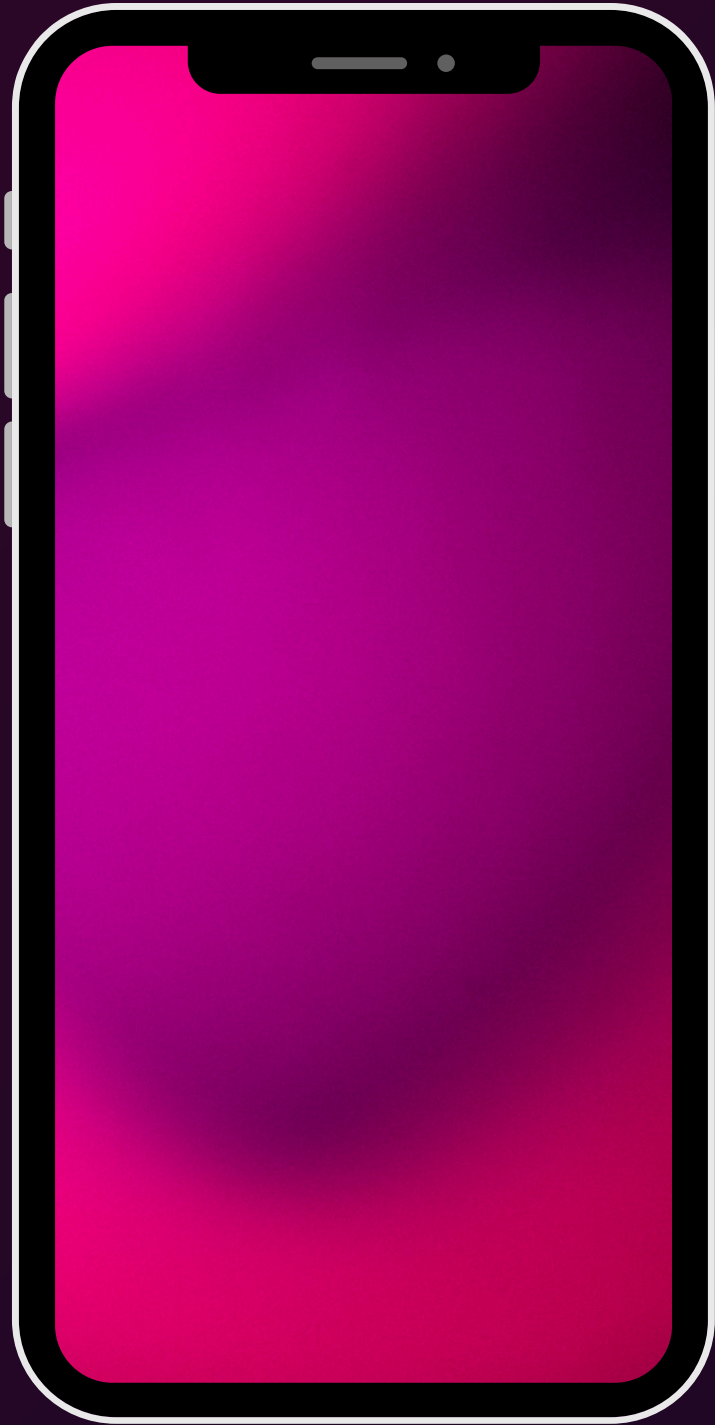
raw\_data



Information



# Dataset Overview



Field	Type	Null	Key
id	int	NO	PRI
company_name	varchar(255)	YES	
model_name	varchar(255)	YES	
mobile_weight	varchar(50)	YES	
ram	varchar(50)	YES	
front_camera	varchar(50)	YES	
back_camera	varchar(50)	YES	
processor	varchar(255)	YES	
battery_capacity	varchar(50)	YES	
screen_size	varchar(50)	YES	
launched_price_pakistan	varchar(50)	YES	
launched_price_india	varchar(50)	YES	
launched_price_china	varchar(50)	YES	
launched_price_usa	varchar(50)	YES	
launched_price_dubai	varchar(50)	YES	
launched_year	int	YES	

- Data contains mobile specs from different brands.
- Includes RAM, battery, price in different countries.

# SQL Queries & Insights

Question: "How many types of mobile models are present?"

```
SELECT COUNT(DISTINCT model_name) AS total_mobile_types  
FROM mobiles;
```

	total_mobile_types
▶	908

Question: "Which mobile brands are present?"

```
select distinct(company_name) from mobiles;
```

Apple, Samsung, OnePlus, Vivo,  
iQOO, Oppo, Realme,  
Xiaomi, Motorola, Nokia, Sony, Huawei,  
Google, Lenovo, Tecno, Infinix, Honor, POCO



# SQL Queries & Insights

Question: "How many mobile has 6gb or more ?"

```
with c as(SELECT model_name,ram,company_name
FROM mobiles
WHERE CAST(REPLACE(ram, 'GB', '') AS UNSIGNED) >= 6)
select ram,count(*) as total_count
from c
group by ram;
```

ram	total_count
6GB	206
8GB	308
12GB	193
16GB	31
10GB	1
8GB / 12GB	2



Question: "find the how many sub variant Samsung has (s series)"

```
select company_name,count(*) as samsung_s_series
from mobiles
where company_name = 'Samsung' and model_name regexp '[s]';
```

company_name	samsung_s_series
Samsung	25

# SQL Queries & Insights



Question: "Most Expensive & Cheapest mobiles by Brands"

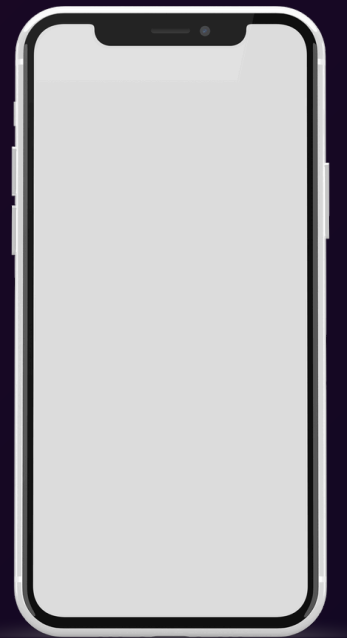
```
SELECT company_name,  
       MIN(CAST(REPLACE(SUBSTRING_INDEX(launched_price_india, ' ', -1), ',', '' ) AS UNSIGNED)) AS min_price,  
       MAX(CAST(REPLACE(SUBSTRING_INDEX(launched_price_india, ' ', -1), ',', '' ) AS UNSIGNED)) AS max_price  
FROM mobiles  
GROUP BY company_name  
ORDER BY max_price DESC;
```

company_name	min_price	max_price
Huawei	34999	274999
Samsung	8499	200999
Apple	29900	199900
Google	31999	179999
Tecno	6999	169999
Oppo	8999	159999
Honor	10999	159999
Vivo	9999	149999
Sony	49999	129999
Motorola	9999	119999
Xiaomi	14999	109999
OnePlus	12999	74999
Realme	11999	65999
Lenovo	7499	59999
iQOO	37999	49999
POCO	10999	44999
Infinix	5999	39999
Nokia	8499	22999

Question: "show the special edition models"

```
select model_name as special_edition,ram,processor  
from mobiles  
where model_name regexp 'Edition';
```

special_edition	ram	processor
OnePlus 8 Pro McLaren Edition 256GB	12GB	Snapdragon 865
OnePlus 8T Cyberpunk Edition 256GB	12GB	Snapdragon 865
OnePlus 7T Pro 5G McLaren Edition 256GB	12GB	Snapdragon 855
OnePlus 8T Cyberpunk 2077 Edition 256GB	12GB	Snapdragon 865
OnePlus 6T McLaren Edition 256GB	10GB	Snapdragon 845
OnePlus 5T Star Wars Edition 128GB	6GB	Snapdragon 835
OnePlus 6 Special Edition 128GB	6GB	Snapdragon 845
OnePlus 5 Special Edition 128GB	8GB	Snapdragon 835
Note 40 Racing Edition	12GB	MediaTek Dimensity 9200
Pad X8a Kids Edition	3GB	MediaTek MT8786



# SQL Queries & Insights

Question: "Mobiles launched per year"

```
select launched_year,count(model_name) as number_of_models
from mobiles
group by launched_year
order by launched_year asc;
```

launched_year	number_of_models
2014	2
2016	5
2017	9
2018	21
2019	46
2020	101
2021	109
2022	149
2023	184
2024	292
2025	12

Question: "Average Screen Size by Year"

```
select launched_year,round(avg(screen_size),2) as "Avg Screen size"
from mobiles
group by launched_year
order by launched_year;
```

launched_year	Avg Screen size
2014	5.25
2016	6.96
2017	5.69
2018	6.16
2019	6.39
2020	7.37
2021	6.75
2022	7.05
2023	7.27
2024	7.26
2025	6.7

# SQL Queries & Insights

Question: "find the price of  
iPhone 16 Pro Max 128GB  
iPhone 16 Pro Max 256GB  
iPhone 16 Pro Max 512GB"

```
select model_name,launched_price_india from  
mobiles  
where model_name  
in ('iPhone 16 Pro Max 128GB',  
'iPhone 16 Pro Max 256GB',  
'iPhone 16 Pro Max 512GB');
```

model_name	launched_price_india
iPhone 16 Pro Max 128GB	INR 109,999
iPhone 16 Pro Max 256GB	INR 114,999
iPhone 16 Pro Max 512GB	INR 124,999

Question: "find the latest released mobiles"

```
select model_name,launched_year from  
mobiles  
where launched_year=2025;
```

model_name	launched_year
Reno13 F 4G 256GB	2025
Reno13 F 256GB	2025
Reno13 Pro 512GB	2025
Reno13 256GB	2025
14 Pro+ 5G 256GB	2025
14 Pro+ 5G 512GB	2025
14 Pro 5G 128GB	2025
14 Pro 5G 256GB	2025
14x 5G 128GB	2025
14x 5G 256GB	2025
X7 128GB	2025
X7 Pro 256GB	2025



# SQL Queries & Insights

Question: "Average Launched Price per Country"

```
SELECT 'India' AS Country,
       CONCAT(ROUND(AVG(CAST(REPLACE(SUBSTRING(launched_price_india, 5), ',', '' ) AS UNSIGNED)), 2), " INR") AS launched_price_avg
FROM mobiles
UNION ALL
SELECT 'Pakistan' AS Country,
       CONCAT(ROUND(AVG(CAST(REPLACE(SUBSTRING(launched_price_pakistan, 5), ',', '' ) AS UNSIGNED)), 2), " PKR") AS launched_price_avg
FROM mobiles
UNION ALL
SELECT 'China' AS Country,
       CONCAT(ROUND(AVG(CAST(REPLACE(SUBSTRING(launched_price_china, 5), ',', '' ) AS UNSIGNED)), 2), " CNY") AS launched_price_avg
FROM mobiles
UNION ALL
SELECT 'USA' AS Country,
       CONCAT(ROUND(AVG(CAST(REPLACE(SUBSTRING(launched_price_usa, 5), ',', '' ) AS UNSIGNED)), 2), " USD") AS launched_price_avg
FROM mobiles
UNION ALL
SELECT 'Dubai' AS Country,
       CONCAT(ROUND(AVG(CAST(REPLACE(SUBSTRING(launched_price_dubai, 5), ',', '' ) AS UNSIGNED)), 2), " AED") AS launched_price_avg
FROM mobiles;
```

Country	launched_price_avg
India	50576.82 INR
Pakistan	125301.19 PKR
China	3807.45 CNY
USA	625.51 USD
Dubai	2183.93 AED



# SQL Queries & Insights

Question: "Average RAM and Battery Capacity by Brand"

```
select company_name,round(avg(left(ram,locate(" ",ram))),0) as avg_ram,  
ROUND(AVG(CAST(REPLACE(REPLACE(battery_capacity, ' mAh ',''),",",",") AS unsigned)),0) AS numeric_battery_capacity  
from mobiles  
group by company_name  
order by avg_ram desc;
```

company_name	avg_ram	numeric_battery_capacity
iQOO	7	8040
POCO	6	5351
Apple	5	4443
Samsung	5	5119
Vivo	5	4679
Oppo	5	4978
Realme	5	5691
Motorola	5	4689
Sony	5	5000
Huawei	5	4900
Google	5	4341
Lenovo	5	4520
Tecno	5	5315
Infinix	5	5330
Honor	5	5488
OnePlus	4	4840
Nokia	4	5309
Xiaomi	3	5172

Question: "Number of mobile has snapdragon processor"

```
select count(*) as no_of_mobile  
from mobiles  
where processor regexp 'Snap*';
```

no_of_mobile
371



# SQL Queries & Insights

Question: "which company has lowest and highest number of mobiles"

```
with c as(select company_name,count(*) as number_of_mod
from mobiles
group by company_name)
(select * from c
order by number_of_mod desc
limit 1)

UNION ALL

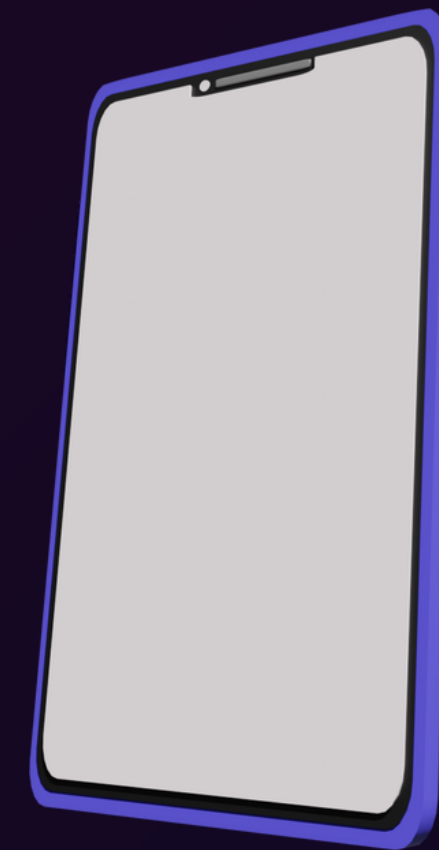
(
select * from c
order by number_of_mod asc
limit 1
);
```

company_name	number_of_mod
Oppo	129
iQOO	3

Question: "Find how many mobile each company has"

```
select company_name,count(*) as 'number of models'
from mobiles
group by company_name;
```

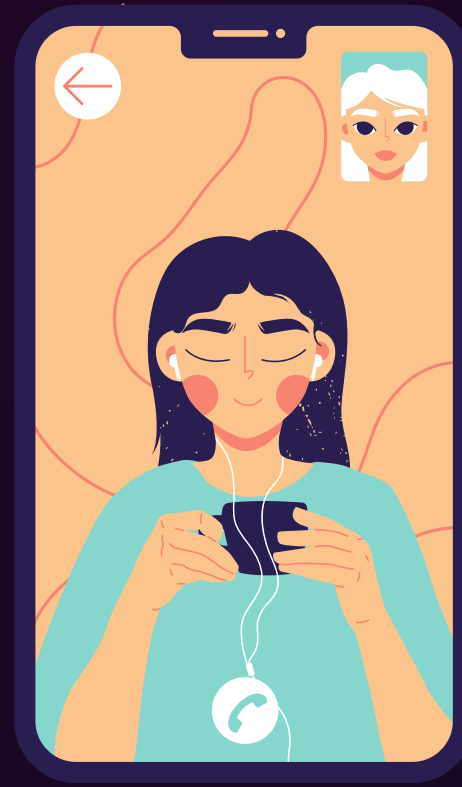
company_name	number of models
Apple	97
Samsung	88
OnePlus	53
Vivo	86
iQOO	3
Oppo	129
Realme	69
Xiaomi	27
Motorola	62
Nokia	11
Sony	9
Huawei	42
Google	21
Lenovo	15
Tecno	39
Infinix	56
Honor	91
POCO	32



# Conclusion

## Summary of Findings:

- **Total Mobiles: 908** models recorded.
- **Brand with Most Models: Oppo** leads with **129** models.
- **Brand with Fewest Models: iQOO** has the least, with only **3** models.
- **Top Brand for 2025 Launches: Realme** introduced the highest number of new mobiles this year (2025).
- **Yearly Trend:** Mobile launches are **steadily increasing each year**.
- **Battery Trends: High-capacity battery** mobiles are becoming more **common**.





# THANK YOU



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