# Data Analytics SQL Mini Project - L1

I created a new database called "kp" and I'm using it for this project.

– create database *kp* – use ***kp***;

## Insight number 1 --

Reading the whole table

select * from cars24



## Insight number 2 -

-- counting the total number cars present in the data set

select count(*) from cars24

```
 5
 6      -- counting the total number cars present in the data set
 7 •    select count(*) from cars24;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: A

| count(*) |
|----------|
| 8128 |

Insight number 3 -- unique fuel

types in this table select

distinct fuel from cars24;

```
 9       -- Unique fuel types
10 •    select distinct fuel from cars24;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: A

| fuel |
|------|
| Petrol |
| LPG |
| Diesel |
| CNG |

Petrol

Insight number 4 -- Average kilometer driven by cars

select avg(km_driven) as avg_km_driven from cars24;

```
  9
 10        -- Average kilometer driven by cars
 11 •      select avg(km_driven) as avg_km_driven from cars24;
```

Result Grid | 🔢 | ↻ | Filter Rows: [          ] | Export: 💾 | Wrap Cell Content: 𝐈𝐀

| avg_km_driven |
|---|
| 69819.5108 |

Insight number 5 -

-- 10 car model driven the most on average
select name, avg(km_driven) as avg_km_driven
from cars24 group by name order by
avg_km_driven desc
limit 10;

```
12
13     -- 10 car model driven the most on average
14 •   select name, avg(km_driven) as avg_km_driven
15     from cars24
16     group by name
17     order by avg_km_driven desc
18     limit 10;
19
20
```

**Result Grid** | Filter Rows: | Export: | Wrap Cell Content: IA

| name | avg_km_driven |
|------|---------------|
| Toyota Innova 2.5 EV Diesel PS 7 Seater BSIII | 500000.0000 |
| Toyota Innova 2.5 VX (Diesel) 7 Seater BS IV | 426000.0000 |
| Mahindra Bolero DI Non AC BSIII | 300000.0000 |
| Toyota Qualis FS B3 | 290000.0000 |
| Tata Sumo Gold GX BSIII | 270000.0000 |
| Chevrolet Tavera Neo LT-L - 9 seats BSII | 265000.0000 |
| Hyundai i20 Asta 1.2 | 260325.6667 |
| Tata New Safari DICOR 2.2 EX 4x4 BS IV | 250000.0000 |
| Chevrolet Tavera B2 8 Seats BSIII | 250000.0000 |
| Toyota Qualis FS F7 | 250000.0000 |

Insight number 6 -- Top 10

popular car model

```
select name, count(*) as cnt
from cars24 group by name
order by cnt desc, limit 10;
```

```
13        -- Top 10 popular car model
14 •      select name, count(*) as cnt
15        from cars24
16        group by name
17        order by cnt desc
18        limit 10;
```

| Result Grid | Filter Rows: | Export: |

| name | cnt |
| --- | --- |
| ▶ Maruti Swift Dzire VDi | 162 |
| Maruti Alto 800 LXI | 82 |
| Maruti Alto LXi | 80 |
| BMW X4 M Sport X xDrive20d | 62 |
| Maruti Swift VDI | 61 |
| Maruti Swift VDI BSIV | 59 |
| Maruti Swift Dzire VXi | 55 |
| Maruti Wagon R LXI | 53 |
| Maruti Alto K10 VXI | 50 |
| Hyundai EON Era Plus | 48 |

Insight number 7 -

-- Average selling price of different car models

select name, avg(selling_price) as avg_selling_price
from cars24 group by name
order by avg_selling_price desc;

```
18
19     -- Average selling price of different car models
20 •   select name, avg(selling_price) as avg_selling_price
21     from cars24
22     group by name
23     order by avg_selling_price desc;
```

**Result Grid** | Filter Rows: | Export: | Wrap Cell Content: 

| name | avg_selling_price |
|------|-------------------|
| ▶ Volvo XC90 T8 Excellence BSIV | 10000000.0000 |
| BMW X7 xDrive 30d DPE | 7200000.0000 |
| Audi A6 35 TFSI Matrix | 6223000.0000 |
| Mercedes-Benz S-Class S 350 CDI | 5962500.0000 |
| BMW 6 Series GT 630d Luxury Line | 5860000.0000 |
| Volvo XC60 Inscription D5 BSIV | 5500000.0000 |
| Volvo S90 D4 Inscription BSIV | 5500000.0000 |
| BMW X4 M Sport X xDrive20d | 5461290.3226 |
| Mercedes-Benz E-Class Exclusive E 200 BSIV | 5200000.0000 |
| Lexus ES 300h | 5150000.0000 |
| Mercedes-Benz GL-Class 220d 4MATIC Sport | 4600000.0000 |
| Land Rover Discovery Sport TD4 SE | 4500000.0000 |
| BMW 5 Series 520d Luxury Line | 4125000.0000 |
| Jeep Wrangler 2016-2019 3.6 4X4 | 4100000.0000 |
| Mercedes-Benz GL-Class 350 CDI Luxury | 4090000.0000 |
| Audi Q5 35TDI Premium Plus | 3975000.0000 |
| Volvo XC40 D4 Inscription BSIV | 3800000.0000 |
| BMW X6 xDrive30d | 3750000.0000 |

Insight number 8 -

-- Numbers of cars sold by each seller type

```
select seller_type, count(*) as cars_sold
from cars24 group by seller_type order
by seller_type asc;
```

```
33      -- Numbers of cars sold by each seller type
34 ●    select seller_type, count(*) as cars_sold
35      from cars24
36      group by seller_type
37      order by seller_type asc;
```

Result Grid | Filter Rows: | Export: | Wrap C

| seller_type | cars_sold |
|---|---|
| ▶ Dealer | 1126 |
| Individual | 6766 |
| Trustmark Dealer | 236 |

Insight number 9 -

-- Total number of milage covered by cars with name 'Audi'

select sum(mileage) as audi_milage
from cars24 where name like
'%Audi%';

```
38
39      -- Total number of  milage covered by cars with name 'Audi'
40 ●    select sum(mileage) as audi_milage
41      from cars24
42      where name like '%Audi%';
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: IA

| audi_milage |
|---|
| 630.98 |

Insight number 10 -

-- Cars sold by each seller_type with higher than 50000 selling price

```sql
select seller_type, count(*) as cnt
from cars24 group by seller_type
having sum(selling_price) > 50000
order by seller_type asc;
```

```
50
51      -- Cars sold by each seller_type with higher than 50000 selling price
52 ●    select seller_type, count(*) as cnt
53      from cars24
54      group by seller_type
55      having sum(selling_price) > 50000
56      order by seller_type asc;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: ‡A

| seller_type | cnt |
|---|---|
| Dealer | 1126 |
| Individual | 6766 |
| Trustmark Dealer | 236 |

Insight number 11 -

-- Cars sold by each transmission type with lower than 12000 km driven

```sql
select transmission, count(*) as cnt
from cars24 where km_driven <
12000 group by transmission order
by transmission;
```

```
43      -- Cars sold by each transmission type with lower than 12000 km driven
44 •    select transmission,  count(*) as cnt
45      from cars24
46      where km_driven < 12000
47      group by transmission
48      order by transmission;
```

**Result Grid** | Filter Rows: | Export: | Wrap Cell Content: IA

| transmission | cnt |
|---|---|
| Automatic | 304 |
| Manual | 309 |

Insight number 12 -

- Cars sold by 'dealear' seller type having 'maruti' in their name

select seller_type, name, count(*) as cnt from cars24
where seller_type = 'dealer' and name like '%maruti%'
group by seller_type, name order by seller_type asc;

```
57      -- Cars sold by 'dealear' seller type having 'maruti' in their name
58 •    select seller_type, name, count(*) as cnt
59      from cars24
60      where seller_type = 'dealer' and name like '%maruti%'
61      group by seller_type, name
62      order by seller_type asc;
```

sult Grid | ⊞ | ↻ Filter Rows: [          ] | Export: 🖫 | Wrap Cell Content: 𝕀A

| seller_type | name | cnt |
| --- | --- | --- |
| Dealer | Maruti Swift VXI BSIV | 4 |
| Dealer | Maruti Swift Dzire ZXI Plus BS IV | 1 |
| Dealer | Maruti Ritz VXi | 1 |
| Dealer | Maruti Wagon R VXI | 6 |
| Dealer | Maruti Wagon R VXI 1.2 | 2 |
| Dealer | Maruti Zen Estilo LXI BSIII | 2 |
| Dealer | Maruti Swift AMT ZXI | 30 |
| Dealer | Maruti Wagon R LXI BS IV | 3 |
| Dealer | Maruti Wagon R LXI | 3 |
| Dealer | Maruti Alto LX BSIII | 2 |
| Dealer | Maruti Swift VXI | 5 |
| Dealer | Maruti Ciaz Zeta | 1 |
| Dealer | Maruti Swift ZXI | 1 |
| Dealer | Maruti Omni E 8 Str STD | 3 |

Insight number 13 -- Car with

the highest mileage

select name, mileage from cars24 where mileage =
(select max(mileage) from cars24);

```
63
64      -- Car with the highest mileage
65 •    select name, mileage
66      from cars24
67      where mileage = (select max(mileage) from cars24);
68
```

| Result Grid | Filter Rows: | Export: | Wrap Cell Content: |
|---|---|---|---|

| name | mileage |
|---|---|
| ▶ Volvo XC90 T8 Excellence BSIV | 42 |

Insight number 14 -- Car with

the lowest mileage

select name, mileage from cars24 where mileage
= (select min(mileage) from cars24) limit 10;

```
63
64        -- Car with the lowest mileage
65  •     select name, mileage
66        from cars24
67        where mileage = (select min(mileage) from cars24)
68        limit 10;
```

| Result Grid | 🔍 Filter Rows: | Export: 💾 | Wrap Cell Content: 丄 |

| name | mileage |
| --- | --- |
| Hyundai Santro Xing (Non-AC) | 0 |
| Hyundai Santro Xing GL | 0 |
| Hyundai Santro Xing GL | 0 |
| Tata Indica Vista Aura Safire Anniversary Edition | 0 |
| Volkswagen Polo GT TSI BSIV | 0 |
| Volkswagen Polo GT TSI BSIV | 0 |

Insight number 15 -

-- Average selling price of cars manufactured year

select name, year, avg(selling_price) as avg_selling_price
from cars24 group by name, year order by year asc

```
limit 10;

69
70        -- Average selling price of cars manufactured year
71 •      select name, year, avg(selling_price) as avg_selling_price
72        from cars24
73        group by name, year
74        order by year asc
75        limit 10;
76
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: ℤA | Fetc

| name | year | avg_selling_price |
| --- | --- | --- |
| Mahindra Willys CJ 3B 4X4 | 1983 | 300000.0000 |
| Maruti Omni LPG STD BSIV | 1991 | 55000.0000 |
| Ambassador Classic 2000 DSZ AC PS | 1994 | 99000.0000 |
| Maruti 800 AC | 1994 | 45000.0000 |
| Mahindra Jeep CL 500 MDI | 1994 | 120000.0000 |
| Mahindra Jeep MM 540 | 1995 | 160000.0000 |
| Maruti 800 Std | 1995 | 55000.0000 |
| Maruti 800 DX | 1996 | 40000.0000 |
| Maruti 800 AC | 1996 | 42000.0000 |
| Mahindra Jeep Classic | 1996 | 163000.0000 |

Insight number 16 -

-- Highest selling-price of car models across year

select name, year, avg(selling_price) as avg_price
from cars24 group by name, year order by
avg_price desc limit 10;

```
81
82        -- Highest selling-price of car models across year
83 •      select name, year, avg(selling_price) as avg_price
84        from cars24
85        group by name, year
86        order by avg_price desc
87        limit 10;
88
89
```

**Result Grid** | Filter Rows: | Export: | Wrap Cell Content:

| name | year | avg_price |
|------|------|-----------|
| ► Volvo XC90 T8 Excellence BSIV | 2017 | 10000000.0000 |
| BMW X7 xDrive 30d DPE | 2020 | 7200000.0000 |
| Audi A6 35 TFSI Matrix | 2019 | 6223000.0000 |
| Mercedes-Benz S-Class S 350 CDI | 2017 | 5962500.0000 |
| BMW 6 Series GT 630d Luxury Line | 2018 | 5860000.0000 |
| Volvo S90 D4 Inscription BSIV | 2019 | 5500000.0000 |
| Volvo XC60 Inscription D5 BSIV | 2018 | 5500000.0000 |
| BMW X4 M Sport X xDrive20d | 2019 | 5461290.3226 |
| BMW 5 Series 520d Luxury Line | 2019 | 5200000.0000 |
| Mercedes-Benz E-Class Exclusive E 200 BSIV | 2019 | 5200000.0000 |

Insight number 17 -

-- Cars with more seats having average mileage

select seats, name, avg(mileage) as avg_mileage
from cars24 group by seats, name order by seats
desc

limit 5;

```
89     -- Cars with more seats having average mileage
90 •   select seats, name, AVG(mileage) AS avg_mileage
91     from cars24
92     group by seats, name
93     order by seats desc
94     limit 5;
```

Result Grid | ▦ ↻ Filter Rows: [                    ] | Export: ▦ | Wrap Cell Conten

| seats | name | avg_mileage |
|-------|------|-------------|
| ▶ 14 | Tata Winger Deluxe - Flat Roof (Non-AC) | 10.71 |
| 10 | Chevrolet Tavera B1-10 seats BSII | 14.8 |
| 10 | Chevrolet Tavera B3 LT L1 10 Seats BSIII | 14.8 |
| 10 | Chevrolet Tavera LS B3 10 Seats BSII | 14.8 |
| 10 | Chevrolet Tavera Neo 3 10 Seats BSIII | 13.58 |

Insight number 18 -

-- Average selling price of cars with seats more than 8

select name, seats, avg(selling_price) as avg_sellling_price
from cars24 where seats >= 8 group by name, seats order
by seats desc

```
limit 15;

96      -- Average selling price of cars with  seats more than 8
97  ●   select name, seats, avg(selling_price) AS avg_sellling_price
98      from cars24
99      where seats >= 8
00      group by name, seats
01      order by seats desc
02      limit 15;
```

sult Grid | | Filter Rows: | | Export: | Wrap Cell Content: IA | Fetch r

| name | seats | avg_selling_price |
|------|-------|-------------------|
| Tata Winger Deluxe - Flat Roof (Non-AC) | 14 | 235000.0000 |
| Toyota Qualis FS B3 | 10 | 229999.0000 |
| Chevrolet Tavera Neo LS B3 - 10 seats BSIII | 10 | 350000.0000 |
| Tata Spacio Gold-10/6 Str BSII | 10 | 100000.0000 |
| Tata Sumo SE Plus BSII | 10 | 95000.0000 |
| Chevrolet Tavera Neo 3 10 Seats BSIII | 10 | 514666.3333 |
| Chevrolet Tavera LS B3 10 Seats BSII | 10 | 225000.0000 |
| Tata Sumo EX 10/7 Str BSIII | 10 | 200000.0000 |
| Chevrolet Tavera B1-10 seats BSII | 10 | 287500.0000 |
| Chevrolet Tavera Neo 3 LS 10 Str | 10 | 409999.0000 |
| Chevrolet Tavera Neo 3 LS 10 Seats BSIII | 10 | 568500.0000 |
| Chevrolet Tavera B3 LT L1 10 Seats BSIII | 10 | 160000.0000 |
| Tata Sumo CX 10 Str BSIV | 10 | 175000.0000 |
| Mahindra Bolero 2011-2019 Plus - AC BSIII | 9 | 436666.6667 |
| Mahindra Bolero 2011-2019 DI - AC BS III | 9 | 565900.0000 |

Insight number 19 -

-- Kilometers driven for cars sold by individual sellers compared to dealers

select seller_type, min(km_driven) as min_km,
max(km_driven) as mx_km, avg(km_driven)

as avg_km from cars24 group by seller_type
order by seller_type asc;

```
104    -- Kilometers driven for cars sold by individual sellers compared to dealers
105 •  select seller_type, min(km_driven) as min_km,
106    max(km_driven) as mx_km,
107    avg(km_driven) as avg_km
108    from cars24
109    group by seller_type;
110
111
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: 

| seller_type | min_km | mx_km | avg_km |
|---|---|---|---|
| Individual | 1 | 2360457 | 75013.8077 |
| Dealer | 1303 | 221889 | 44383.9805 |
| Trustmark Dealer | 2286 | 79328 | 42259.3178 |

Insight number 20 -

-- car models with consistently low mileage across different years

select name, year, mileage from cars24 where
mileage < (select avg(mileage)from cars24) order
by name, year
limit 10;

```sql
111     --  car models with consistently low mileage across different years
112 •   select name, year, mileage
113     from cars24
114     where mileage < (select avg(mileage)from cars24)
115     order by name, year
116     limit 10;
117
118
119
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

| name | year | mileage |
| --- | --- | --- |
| Ambassador CLASSIC 1500 DSL AC | 2000 | 12.8 |
| Ambassador Classic 2000 DSZ AC PS | 1994 | 12.8 |
| Ambassador Grand 1500 DSZ BSIII | 2008 | 12.8 |
| Ambassador Grand 2000 DSZ PW CL | 2008 | 13.5 |
| Audi A3 40 TFSI Premium | 2017 | 16.6 |
| Audi A4 1.8 TFSI | 2010 | 12.3 |
| Audi A4 2.0 TDI | 2014 | 16.55 |
| Audi A4 2.0 TDI | 2014 | 16.55 |
| Audi A4 2.0 TDI 177 Bhp Premium Plus | 2013 | 17.11 |
| Audi A4 35 TDI Premium Plus | 2015 | 18.25 |