

Data Analytics SQL Mini Project -L1

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

- create database `moonmoon`;
- use `moonmoon`;

Insight number 1 -

-- Reading the whole table

`select * from cars24`

```
3  -- Reading the whole table
4  • select * from cars24;
```

	name	year	selling_price	km_driven	fuel	seller_type	transmission	owner	mileage	engine [CC]	max_power	seats
▶	Hyundai i20 Asta 1.2	2007	550000	2360457	Petrol	Individual	Manual	Second Owner	18.6	1197	81.83	5
	Maruti Wagon R LXI Minor	2010	194000	577414	Petrol	Individual	Manual	Second Owner	18.9	1061	67	5
	Maruti Wagon R VXI BS IV	2011	229999	500000	Petrol	Individual	Manual	Second Owner	18.9	998	67.1	5
	Maruti Wagon R LXI BS IV	2012	220000	360003	Petrol	Individual	Manual	Second Owner	18.9	998	67.1	5
	Hyundai Sonata 2.4 GDI MT	2012	550000	330000	Petrol	Individual	Manual	Second Owner	13.44	2359	198.25	5
	Hyundai Sonata 2.4 GDI MT	2012	500000	330000	Petrol	Individual	Manual	Second Owner	13.44	2359	198.25	5
	Maruti Ertiga BSIV VXI	2017	700000	227000	Petrol	Individual	Manual	First Owner	17.5	1373	91.1	7
	Hyundai i20 1.2 Asta	2011	220000	220000	Petrol	Individual	Manual	Fourth & Above Owner	17	1197	80	5
	Maruti 800 EX	2004	70000	220000	Petrol	Individual	Manual	Second Owner	16.1	796	37	4
	Honda Civic 1.8 S AT	2007	175000	218463	Petrol	Individual	Automatic	First Owner	12.9	1799	130	5
	Hyundai Verna XXI ABS (Pe...	2009	340000	214000	Petrol	Individual	Manual	Second Owner	13.9	1599	103.2	5
	Renault KWID RXT	2015	210000	210000	Petrol	Individual	Manual	Second Owner	25.17	799	53.3	5
	Maruti Alto LX	2000	108000	206000	Petrol	Individual	Manual	Fourth & Above Owner	19.7	796	46.3	5
	Hyundai i10 Magna 1.1L	2010	187000	200400	Petrol	Individual	Manual	Second Owner	19.81	1086	68.05	5
	Ford Fiesta 1.4 Duratec ZXI	2008	136000	200185	Petrol	Individual	Manual	First Owner	16.6	1388	68	5
	Maruti Swift Dzire 1.2 Vxi ...	2010	210000	200000	Petrol	Individual	Manual	First Owner	17.5	1197	85.8	5

cars24 2 x

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;
```

	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:
	fuel			
	Petrol			
	LPG	Petrol		
	Diesel			
	CNG			

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:
	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;

```

```

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: <input type="text"/> Export:  Wrap Cell Content: 		
	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:
	audi_milage				
	630.98				

Insight number 10 -

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

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

30

```
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:
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

```
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:
	transmission	cnt			
▶	Automatic	304			
	Manual	309			

Insight number 12 -

- Cars sold by 'dealer' 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;

```



```

17 -- Cars sold by 'dealer' seller type having 'maruti' in their name
18 • select seller_type, name, count(*) as cnt
19 from cars24
20 where seller_type = 'dealer' and name like '%maruti%'
21 group by seller_type, name
22 order by seller_type asc;

```

Result Grid			Filter Rows: <input type="text"/>	Export:	Wrap Cell Content:
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:
	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: <input type="text"/> Export:  Wrap Cell Content:  Fetch			
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: <input type="text"/> Export:  Wrap Cell Content			
	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_selling_price
from cars24
where seats >= 8
group by name, seats
order by seats desc
limit 15;

```

```

95
96 -- Average selling price of cars with seats more than 8
97 • select name, seats, avg(selling_price) AS avg_selling_price
98 from cars24
99 where seats >= 8
100 group by name, seats
101 order by seats desc
102 limit 15;

```

Result Grid   Filter Rows: <input type="text"/> Export:  Wrap Cell Content:  Fetch n			
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;




```



```

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: <input type="text"/>			
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