USE sql\_cx\_live;

SELECT \* FROM laptops;

-- head, tail and sample

SELECT \* FROM laptops

ORDER BY `index` LIMIT 5;

SELECT \* FROM laptops

ORDER BY `index` DESC LIMIT 5;

SELECT \* FROM laptops

ORDER BY rand() LIMIT 5;

SELECT COUNT(Price) OVER(),

MIN(Price) OVER(),

MAX(Price) OVER(),

AVG(Price) OVER(),

STD(Price) OVER(),

PERCENTILE\_CONT(0.25) WITHIN GROUP(ORDER BY Price) OVER() AS 'Q1',

PERCENTILE\_CONT(0.5) WITHIN GROUP(ORDER BY Price) OVER() AS 'Median',

PERCENTILE\_CONT(0.75) WITHIN GROUP(ORDER BY Price) OVER() AS 'Q3'

FROM laptops

ORDER BY `index` LIMIT 1;

-- missing value

SELECT COUNT(Price)

FROM laptops

WHERE Price IS NULL;

-- outliers

SELECT \* FROM (SELECT \*,

PERCENTILE\_CONT(0.25) WITHIN GROUP(ORDER BY Price) OVER() AS 'Q1',

PERCENTILE\_CONT(0.75) WITHIN GROUP(ORDER BY Price) OVER() AS 'Q3'

FROM laptops) t

WHERE t.Price < t.Q1 - (1.5\*(t.Q3 - t.Q1)) OR

t.Price > t.Q3 + (1.5\*(t.Q3 - t.Q1));

SELECT t.buckets,REPEAT('\*',COUNT(\*)/5) FROM (SELECT price,

CASE

WHEN price BETWEEN 0 AND 25000 THEN '0-25K'

WHEN price BETWEEN 25001 AND 50000 THEN '25K-50K'

WHEN price BETWEEN 50001 AND 75000 THEN '50K-75K'

WHEN price BETWEEN 75001 AND 100000 THEN '75K-100K'

ELSE '>100K'

END AS 'buckets'

FROM laptops) t

GROUP BY t.buckets;

SELECT Company,COUNT(Company) FROM laptops

GROUP BY Company;

SELECT cpu\_speed,Price FROM laptops;

SELECT \* FROM laptops;

SELECT Company,

SUM(CASE WHEN Touchscreen = 1 THEN 1 ELSE 0 END) AS 'Touchscreen\_yes',

SUM(CASE WHEN Touchscreen = 0 THEN 1 ELSE 0 END) AS 'Touchscreen\_no'

FROM laptops

GROUP BY Company;

SELECT DISTINCT cpu\_brand FROM laptops;

SELECT Company,

SUM(CASE WHEN cpu\_brand = 'Intel' THEN 1 ELSE 0 END) AS 'intel',

SUM(CASE WHEN cpu\_brand = 'AMD' THEN 1 ELSE 0 END) AS 'amd',

SUM(CASE WHEN cpu\_brand = 'Samsung' THEN 1 ELSE 0 END) AS 'samsung'

FROM laptops

GROUP BY Company;