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**#Importing the .csv file into MySQL**

**#1. Bajaj Auto**

create database kishore;

use kishore;

create table bajaj\_auto

(

Date\_of date,

Open\_Price double,

High\_Price double,

Low\_Price double,

Close\_Price double,

WAP double,

No\_of\_Shares double,

No\_of\_Trades double,

Total\_Turnover bigint,

Deliverable\_Quantity double,

Deli\_Qty\_to\_Traded\_Qty double,

Spread\_High\_Low double,

Spread\_Close\_Open double );

load data infile 'C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/Bajaj\_Auto.csv'

into table bajaj\_auto fields terminated by ',' lines terminated by '\n' ignore 1 rows

(Dateof,Open\_price,High\_Price,Low\_Price,Close\_Price,WAP,No\_of\_Shares,No\_of\_Trades,

Total\_Turnover,Deliverable\_Quantity,Deli\_Qty\_to\_Traded\_Qty,Spread\_High\_Low,Spread\_Close\_Open);

**#2. Eicher Motors**

create table Eicher\_Motors

(

Dateof date,

Open\_Price double,

High\_Price double,

Low\_Price double,

Close\_Price double,

WAP double,

No\_of\_Shares double,

No\_of\_Trades double,

Total\_Turnover bigint,

Deliverable\_Quantity double,

Deli\_Qty\_to\_Traded\_Qty double,

Spread\_High\_Low double,

Spread\_Close\_Open double);

load data infile 'C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/Eicher\_Motors.csv'

into table Eicher\_Motors fields terminated by ',' lines terminated by '\n' ignore 1 rows

(Dateof,Open\_price,High\_Price,Low\_Price,Close\_Price,WAP,No\_of\_Shares,No\_of\_Trades,

Total\_Turnover,Deliverable\_Quantity,Deli\_Qty\_to\_Traded\_Qty,Spread\_High\_Low,Spread\_Close\_Ope**n);**

**#3.** **Hero Motocorp**

create table Hero\_Motocorp

(Dateof date,

Open\_Price double,

High\_Price double,

Low\_Price double,

Close\_Price double,

WAP double,

No\_of\_Shares double,

No\_of\_Trades double,

Total\_Turnover bigint,

Deliverable\_Quantity double,

Deli\_Qty\_to\_Traded\_Qty double,

Spread\_High\_Low double,

Spread\_Close\_Open double);

load data infile 'C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/Hero\_Motocorp.csv'

into table Hero\_Motocorp fields terminated by ',' lines terminated by '\n' ignore 1 rows

(Dateof,Open\_price,High\_Price,Low\_Price,Close\_Price,WAP,No\_of\_Shares,No\_of\_Trades,

Total\_Turnover,Deliverable\_Quantity,Deli\_Qty\_to\_Traded\_Qty,Spread\_High\_Low,Spread\_Close\_Open);

**#4. Infosys**

create table Infosys

(

Dateof date,

Open\_Price double,

High\_Price double,

Low\_Price double,

Close\_Price double,

WAP double,

No\_of\_Shares double,

No\_of\_Trades double,

Total\_Turnover bigint,

Deliverable\_Quantity double,

Deli\_Qty\_to\_Traded\_Qty double,

Spread\_High\_Low double,

Spread\_Close\_Open double);

load data infile 'C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/Infosys.csv'

into table Infosys fields terminated by ',' lines terminated by '\n' ignore 1 rows

(Dateof,Open\_price,High\_Price,Low\_Price,Close\_Price,WAP,No\_of\_Shares,No\_of\_Trades,

Total\_Turnover,Deliverable\_Quantity,Deli\_Qty\_to\_Traded\_Qty,Spread\_High\_Low,Spread\_Close\_Open);

**#5. TCS**

create table TCS

(

Dateof date,

Open\_Price double,

High\_Price double,

Low\_Price double,

Close\_Price double,

WAP double,

No\_of\_Shares double,

No\_of\_Trades double,

Total\_Turnover bigint,

Deliverable\_Quantity double,

Deli\_Qty\_to\_Traded\_Qty double,

Spread\_High\_Low double,

Spread\_Close\_Open double);

load data infile 'C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/TCS.csv'

into table TCS fields terminated by ',' lines terminated by '\n' ignore 1 rows

(Dateof,Open\_price,High\_Price,Low\_Price,Close\_Price,WAP,No\_of\_Shares,No\_of\_Trades,

Total\_Turnover,Deliverable\_Quantity,Deli\_Qty\_to\_Traded\_Qty,Spread\_High\_Low,Spread\_Close\_Open);

**#6. TVS Motors**

create table TVS\_Motors

(

Dateof date,

Open\_Price double,

High\_Price double,

Low\_Price double,

Close\_Price double,

WAP double,

No\_of\_Shares double,

No\_of\_Trades double,

Total\_Turnover bigint,

Deliverable\_Quantity double,

Deli\_Qty\_to\_Traded\_Qty double,

Spread\_High\_Low double,

Spread\_Close\_Open double);

load data infile 'C:/ProgramData/MySQL/MySQL Server 8.0/Uploads/TVS\_Motors.csv'

into table TVS\_Motors fields terminated by ',' lines terminated by '\n' ignore 1 rows

(Dateof,Open\_price,High\_Price,Low\_Price,Close\_Price,WAP,No\_of\_Shares,No\_of\_Trades,

Total\_Turnover,Deliverable\_Quantity,Deli\_Qty\_to\_Traded\_Qty,Spread\_High\_Low,Spread\_Close\_Open);

**#QUESTION 1**

#calculating 20 dat moving average and 50 day moving average using window functions

1).select Date,'close\_price',

avg('close\_price') over(rows 19 preceding) as '20 Day MA',

avg('close\_price') over(rows 49 preceding) as '50 Day MA'

from (select Date,'close\_price',row\_number() over() as day from 'bajaj\_auto' order by day desc);

2). select Date,'close\_price',

avg('close\_price') over(rows 19 preceding) as '20DayMA',

avg('close\_price') over(rows 49 preceding) as '50DayMA'

from (select Date,'close\_price',row\_number() over() as day from 'Eicher\_ Motors' order by day desc);

3). select Date, 'close\_price',

avg ('close\_price') over (rows 19 preceding)as '20DayMA',

avg('close\_price') over (rows 49 preceding) as '50DayMA'

from (select Date,'close\_price',row\_number() over() as day from 'Hero\_Motocorp' order by day desc);

4). select Date,'close\_price',

avg('close\_price') over(rows 19 preceding)as '20DayMA',

avg('close\_price') over(rows 49 preceding) as '50DayMA'

from (select Date,'close\_price', row\_number() over() as day from 'Infosys' order by day desc);

5). select Date,'close\_price',

avg('close\_price') over(rows 19 preceding)as '20DayMA',

avg('close\_price') over(rows 49 preceding) as '50DayMA'

from (select Date,'close\_price',row\_number() over() as day from 'TCS' order by day desc);

6).select Date,'close\_price',

avg('close\_price') over(rows 19 preceding)as '20DayMA',

avg('close\_price') over(rows 49 preceding) as '50DayMA'

from (select Date,'close\_price', row\_number() over() as day from 'TVS\_Motor' order by day desc);

**#QUESTION2**

#to get all tables data into single table I combined them using inner join

select b.'date' as Date, b.'close price' as 'Bajaj', t.'close price' as 'TCS', tv.'close price' as 'TVS',

i.'close price' as 'Infosys', e.'close price' as 'Eicher', h.'close price' as 'Hero`

from 'bajaj\_auto' b inner join TCS t on ba.'date'=t.'date'

inner join TVS\_Motor tv on t.'date'=tm.'date'

inner join 'Infosys' i on tm.'date' =i.'date'

inner join 'Eicher\_Motors' e on i.'date'=e.'date'

inner join 'Hero\_Motocorp' h on e.'date'=h.'date';

**#QUESTION 3**

#creating signal to buy, sell or hold

SELECT Date,

'close\_price',

CASE

WHEN day>49 and '20DayMA' > '50DayMA' THEN 'Buy' # comparing 20ma and 50ma

WHEN day>49 and '20DayMA' < '50DayMA' THEN 'Sell'

ELSE 'Hold'

END as 'Signal'

from (select Date,'close\_price','20DayMA','50DayMA',

row\_number() over() as day from bajaj\_auto

order by day asc);

**#QUESTION 4**

**Set global log­\_bin\_trust\_function\_creators=1; #to instruct MySQL this creating function is**

# **safe and allow to create a function**

delimiter $$ #to change end of query notation from ; to $$

drop function if exists signal\_table\_of\_bajaj $$ #to drop old function

create function signal\_table\_of\_bajaj (date1 text) # creating a function

returns char(5) deterministic

begin

declare s\_var char(10);

select 'Signal' into s\_var from bajaj2 where date=date1; #passing the entered date value to query

return s\_var;

end $$

delimiter ;

select signal\_table\_of\_bajaj ('3-April-2014') $$ #calling the function