**Stock Analysis Project**

This Code will generate signal to **Buy or Sell** stock for **short term and long-term investor**, **Trend of Stock**, **Golden Cross and Deth Cross**

##Code begins from here

CREATE TABLE ad1 (

`date` date,

`close\_price` decimal(10,2),

`MA7` decimal(10,2),

`MA20` decimal(10,2),

`MA50` decimal(10,2),

`MA100` decimal(10,2),

`row\_num` integer

);

## creating the same table for other stocks

create table jsl1 like ad1;

create table tata1 like ad1;

create table z1 like ad1;

select \* from adanigreen

##calculating moving avg and inserting the value in new table

insert into ad1 (date, close\_price, MA7, MA20, MA50, MA100, row\_num)

(

select date, Close as close\_price,

avg(Close) over(order by date asc rows between 6 preceding and current row) as MA7,

avg(Close) over(order by date asc rows between 19 preceding and current row) as MA20,

avg(Close) over(order by date asc rows between 49 preceding and current row) as MA50,

avg(Close) over(order by date asc rows between 99 preceding and current row) as MA100,

row\_number() over(order by date) as row\_num

from adanigreen

order by Date

)

select \* from ad1

select \* from jsl

insert into jsl1 (date, close\_price, MA7, MA20, MA50, MA100, row\_num)

(

select date, Close as close\_price,

avg(Close) over(order by date asc rows between 6 preceding and current row) as MA7,

avg(Close) over(order by date asc rows between 19 preceding and current row) as MA20,

avg(Close) over(order by date asc rows between 49 preceding and current row) as MA50,

avg(Close) over(order by date asc rows between 99 preceding and current row) as MA100,

row\_number() over(order by date) as row\_num

from jsl

order by Date

)

select \* from jsl1

select \* from tatapower

insert into tata1 (date, close\_price, MA7, MA20, MA50, MA100, row\_num)

(

select date, Close as close\_price,

avg(Close) over(order by date asc rows between 6 preceding and current row) as MA7,

avg(Close) over(order by date asc rows between 19 preceding and current row) as MA20,

avg(Close) over(order by date asc rows between 49 preceding and current row) as MA50,

avg(Close) over(order by date asc rows between 99 preceding and current row) as MA100,

row\_number() over(order by date) as row\_num

from tatapower

order by Date

)

select \* from tata1

select \* from zomato

insert into z1 (date, close\_price, MA7, MA20, MA50, MA100, row\_num)

(

select date, Close as close\_price,

avg(Close) over(order by date asc rows between 6 preceding and current row) as MA7,

avg(Close) over(order by date asc rows between 19 preceding and current row) as MA20,

avg(Close) over(order by date asc rows between 49 preceding and current row) as MA50,

avg(Close) over(order by date asc rows between 99 preceding and current row) as MA100,

row\_number() over(order by date) as row\_num

from zomato

order by Date

)

select \* from z1

## deleting all the avg value

## here I have used SET SQL\_SAFE\_UPDATES = 0 to disable the safe update mode

SET SQL\_SAFE\_UPDATES = 0

update ad1

set MA7 = null

where row\_num <6

update ad1

set MA20 = null

where row\_num <19

update ad1

set MA50 = null

where row\_num <49

update ad1

set MA100 = null

where row\_num <99

select \* from ad1

update jsl1

set MA7 = null

where row\_num <6

update jsl1

set MA20 = null

where row\_num <19

update jsl1

set MA50 = null

where row\_num <49

update jsl1

set MA100 = null

where row\_num <99

select \* from jsl1

update tata1

set MA7 = null

where row\_num <6

update tata1

set MA20 = null

where row\_num <19

update tata1

set MA50 = null

where row\_num <49

update tata1

set MA100 = null

where row\_num <99

select \* from tata1

update z1

set MA7 = null

where row\_num <6

update z1

set MA20 = null

where row\_num <19

update z1

set MA50 = null

where row\_num <49

update z1

set MA100 = null

where row\_num <99

select \* from z1

## dropping row\_num, we don’t require this table anymore

alter table ad1 drop row\_num

alter table jsl1 drop row\_num

alter table tata1 drop row\_num

alter table z1 drop row\_num

select \* from z1

select \* from jsl1

select \* from tata1

select \* from ad1

create table adanigreen\_stock as

select B.date, A.Open, A.High, A.Low, B.close\_price, A.Volume, B.MA7, B.MA20, B.MA50, B.MA100 from adanigreen A

left join ad1 B

on A.Date=B.date

select \* from adanigreen\_stock

create view x as

select \*, ROW\_NUMBER() OVER (ORDER BY date) RowNumber

from adanigreen\_stock

## creating a master table that will generate Buy and Sell signal for shoet term and long term, Trend, Golden Cross and Deth Cross for Adani Green

create table final\_analysis\_adanigreen

select \*,

case

when RowNumber < 100 then

(case

when RowNumber > 49 and close\_price > MA50 then 'Uptrend for short term'

when RowNumber > 49 and close\_price < MA50 then 'Downtrend for short term'

else 'NA'

end)

when RowNumber > 99 and close\_price > MA100 then 'Uptrend for long term'

when RowNumber > 99 and close\_price < MA100 then 'Downtrend for long term'

when MA50 > MA100 and (lag(MA50,1) over (order by date)) < (lag(MA100,1) over (order by date)) then 'Golden cross'

when MA50 < MA100 and (lag(MA50,1) over (order by date)) > (lag(MA100,1) over (order by date)) then 'Death cross'

else 'Hold'

end as trend,

case

when RowNumber < 21 then 'NA'

when MA7 > MA20 and (lag(MA7,1) over (order by date)) < (lag(MA20,1) over (order by date)) then 'Short term Buy'

when MA20 < MA50 and (lag(MA20,1) over (order by date)) > (lag(MA50,1) over (order by date)) then 'Short term Sell'

else 'Hold'

end as signal\_for\_swing,

case

when RowNumber < 50 then 'NA'

when MA20 > MA50 and (lag(MA20,1) over (order by date)) < (lag(MA50,1) over (order by date)) then 'Buy'

when MA20 < MA50 and (lag(MA20,1) over (order by date)) > (lag(MA50,1) over (order by date)) then 'Sell'

else 'Hold'

end as signal\_for\_investing

from x;

select \* from final\_analysis\_adanigreen

#same for the JSL stocks

create table jsl\_stock as

select B.date, A.Open, A.High, A.Low, B.close\_price, A.Volume, B.MA7, B.MA20, B.MA50, B.MA100 from jsl A

left join jsl1 B

on A.Date=B.date

select \* from jsl\_stock

create view y as

select \*, ROW\_NUMBER() OVER (ORDER BY date) RowNumber

from jsl\_stock

select \* from y

create table final\_analysis\_jsl

select \*,

case

when RowNumber < 100 then

(case

when RowNumber > 49 and close\_price > MA50 then 'Uptrend for short term'

when RowNumber > 49 and close\_price < MA50 then 'Downtrend for short term'

else 'NA'

end)

when RowNumber > 99 and close\_price > MA100 then 'Uptrend for long term'

when RowNumber > 99 and close\_price < MA100 then 'Downtrend for long term'

when MA50 > MA100 and (lag(MA50,1) over (order by date)) < (lag(MA100,1) over (order by date)) then 'Golden cross'

when MA50 < MA100 and (lag(MA50,1) over (order by date)) > (lag(MA100,1) over (order by date)) then 'Death cross'

else 'Hold'

end as trend,

case

when RowNumber < 21 then 'NA'

when MA7 > MA20 and (lag(MA7,1) over (order by date)) < (lag(MA20,1) over (order by date)) then 'Short term Buy'

when MA20 < MA50 and (lag(MA20,1) over (order by date)) > (lag(MA50,1) over (order by date)) then 'Short term Sell'

else 'Hold'

end as signal\_for\_swing,

case

when RowNumber < 50 then 'NA'

when MA20 > MA50 and (lag(MA20,1) over (order by date)) < (lag(MA50,1) over (order by date)) then 'Buy'

when MA20 < MA50 and (lag(MA20,1) over (order by date)) > (lag(MA50,1) over (order by date)) then 'Sell'

else 'Hold'

end as signal\_for\_investing

from y;

select \* from final\_analysis\_jsl

#same for tatapower

create table tatapower\_stock as

select B.date, A.Open, A.High, A.Low, B.close\_price, A.Volume, B.MA7, B.MA20, B.MA50, B.MA100 from tatapower A

left join tata1 B

on A.Date=B.date

select \* from tatapower\_stock

create view z as

select \*, ROW\_NUMBER() OVER (ORDER BY date) RowNumber

from tatapower\_stock

select \* from z

create table final\_analysis\_tatapower

select \*,

case

when RowNumber < 100 then

(case

when RowNumber > 49 and close\_price > MA50 then 'Uptrend for short term'

when RowNumber > 49 and close\_price < MA50 then 'Downtrend for short term'

else 'NA'

end)

when RowNumber > 99 and close\_price > MA100 then 'Uptrend for long term'

when RowNumber > 99 and close\_price < MA100 then 'Downtrend for long term'

when MA50 > MA100 and (lag(MA50,1) over (order by date)) < (lag(MA100,1) over (order by date)) then 'Golden cross'

when MA50 < MA100 and (lag(MA50,1) over (order by date)) > (lag(MA100,1) over (order by date)) then 'Death cross'

else 'Hold'

end as trend,

case

when RowNumber < 21 then 'NA'

when MA7 > MA20 and (lag(MA7,1) over (order by date)) < (lag(MA20,1) over (order by date)) then 'Short term Buy'

when MA20 < MA50 and (lag(MA20,1) over (order by date)) > (lag(MA50,1) over (order by date)) then 'Short term Sell'

else 'Hold'

end as signal\_for\_swing,

case

when RowNumber < 50 then 'NA'

when MA20 > MA50 and (lag(MA20,1) over (order by date)) < (lag(MA50,1) over (order by date)) then 'Buy'

when MA20 < MA50 and (lag(MA20,1) over (order by date)) > (lag(MA50,1) over (order by date)) then 'Sell'

else 'Hold'

end as signal\_for\_investing

from z;

select \* from final\_analysis\_tatapower

#same for zomato

create table zomato\_stock as

select B.date, A.Open, A.High, A.Low, B.close\_price, A.Volume, B.MA7, B.MA20, B.MA50, B.MA100 from zomato A

left join z1 B

on A.Date=B.date

select \* from zomato\_stock

create view p as

select \*, ROW\_NUMBER() OVER (ORDER BY date) RowNumber

from zomato\_stock

select \* from p

create table final\_analysis\_zomato

select \*,

case

when RowNumber < 100 then

(case

when RowNumber > 49 and close\_price > MA50 then 'Uptrend for short term'

when RowNumber > 49 and close\_price < MA50 then 'Downtrend for short term'

else 'NA'

end)

when RowNumber > 99 and close\_price > MA100 then 'Uptrend for long term'

when RowNumber > 99 and close\_price < MA100 then 'Downtrend for long term'

when MA50 > MA100 and (lag(MA50,1) over (order by date)) < (lag(MA100,1) over (order by date)) then 'Golden cross'

when MA50 < MA100 and (lag(MA50,1) over (order by date)) > (lag(MA100,1) over (order by date)) then 'Death cross'

else 'Hold'

end as trend,

case

when RowNumber < 21 then 'NA'

when MA7 > MA20 and (lag(MA7,1) over (order by date)) < (lag(MA20,1) over (order by date)) then 'Short term Buy'

when MA20 < MA50 and (lag(MA20,1) over (order by date)) > (lag(MA50,1) over (order by date)) then 'Short term Sell'

else 'Hold'

end as signal\_for\_swing,

case

when RowNumber < 50 then 'NA'

when MA20 > MA50 and (lag(MA20,1) over (order by date)) < (lag(MA50,1) over (order by date)) then 'Buy'

when MA20 < MA50 and (lag(MA20,1) over (order by date)) > (lag(MA50,1) over (order by date)) then 'Sell'

else 'Hold'

end as signal\_for\_investing

from p;

select \* from final\_analysis\_zomato

##view all the table

select \* from final\_analysis\_adanigreen

select \* from final\_analysis\_jsl

select \* from final\_analysis\_tatapower

select \* from final\_analysis\_zomato