STOCK MARKET TRACKING ANALYTICAL REPORT

The Stock Market Tracking Report shows the various solutions for the given Assessment for better perspective of visualization and Data Conditioning for clear understanding.

1.) Data Manipulation Tasks:

Task 1: Creating sub sheet and fetching all data.

	A	В	С	D	E	F	G	н	1	J
1	Task : creating	sub sheet and f	etching all data							
2										
3	Stock	Market cap (in R	Current price	PE Ratio	52 Week High	% Below 52 wee	52 Week Low	% Above 52 We	Yesterday Closin	% Change
4	Reliance	1620922.44	2467.9	25.09	2856.15	13.59%	2180	13.21%	2471.6	-0.15%
5	TCS	1234544.52	3374.2	30.43	4045.5	16.59%	2926	15.32%	3334.6	1.19%
6	HUL	616301.33	2620.6	63.81	2741.6	4.41%	1901.55	37.81%	2590.05	1.18%
7	SBI Bank	535431.32	600.05	13	629.65	4.70%	425	41.19%	595	0.85%
8	HDFC	478914.70	2619.25	19.81	2933.8	10.72%	2026	29.28%	2612.8	0.25%
9	LIC	450686.76	712.7	23.63	920	22.53%	588	21.21%	705.55	1.01%
10	Airtel	441027.40	764.6	65.86	860.55	11.15%	628.75	21.61%	756.9	1.02%
11	Bajaj Finance	361172.64	5977	36.52	8045	25.71%	5220	14.50%	5898.4	1.33%
12	Kotak Bank	354002.54	1780.5	25.87	1997.55	10.87%	1631	9.17%	1779.5	0.06%
13	L&T	302617.17	2153.75	31.53	2210.5	2.57%	1456.8	47.84%	2160.2	-0.30%
14	Axis Bank	287213.29	933.9	15.67	970	3.72%	618.25	51.06%	935.55	-0.18%
15	Asian Paints	278960.10	2912	76.19	3582.9	18.73%	2560	13.75%	2915.95	-0.14%
16	Maruti Suzuki	255438.42	8454.2	42.1	9769	13.46%	6536.55	29.34%	8369.2	1.02%
17	Sun pharma	247191.65	1031.05	60.4	1070.95	3.73%	784.8	31.38%	1032.85	-0.179
18	Bajaj Finserv	221292.51	1391	40.48	3724.2	62.65%	1374.35	1.21%	1387.8	0.239
19	Titan	214719.01	2417.65	68.59	2790	13.35%	1827.15	32.32%	2445.65	-1.14%
20	Ultratech Cemer	208975.80	7244.95	31.35	7946	8.82%	5157.05	40.49%	7153.35	1.28%
21	Nestle	190752.20	19782.3	88.1	21050	6.02%	16000	23.64%	19873.25	-0.469
22	M&M	158785.37	1327.55	16.12	1366.55	2.85%	671.15	97.80%	1319.9	0.58%
23	Tata Steel	147293.60	120.45	5.13	138.63	13.11%	82.71	45.63%	118.05	2.03%

=QUERY('Data Set'!A1:J, "select * where D < 100 AND D IS NOT NULL order by B Desc",1)

This is the Query which done to get the given task i.e., where PE Ratio < 100 & not blank with descending order with respect to Market Cap.

Task 2: Creating 2 Columns of Industry & NSE/BSE Code & Fetch Data.

Now in this image two columns where created to fetch data from Industry data source.

	A	В	C	D	E	F	G	H	1	J	K	L
1	Task 2 : Creatin	g 2 Columns of	Industry & NSE/	BSE Code & Fet	ch Data							
2												
3	Stock	Market cap (in R	Current price	PE Ratio	52 Week High	% Below 52 wee	52 Week Low	% Above 52 We	Yesterday Closin	% Change	Industry	NSE/BSE Code
4	Reliance	1620922.44	2467.9	25.09	2856.15	13.59%	2180	13.21%	2471.6	-0.15%	Telecom and oil	RELIANCE
5	TCS	1234544.52	3374.2	30.43	4045.5	16.59%	2926	15.32%	3334.6	1.19%	IT	BOM:532540
6	HUL	616301.33	2620.6	63.81	2741.6	4.41%	1901.55	37.81%	2590.05	1.18%	FMCG	HINDUNILVR
7	SBI Bank	535431.32	600.05	13	629.65	4.70%	425	41.19%	595	0.85%	Bank	BOM:500112
8	HDFC	478914.70	2619.25	19.81	2933.8	10.72%	2026	29.28%	2612.8	0.25%	Financial Servci	HDFC
9	LIC	450686.76	712.7	23.63	920	22.53%	588	21.21%	705.55	1.01%	Insurance	BOM:543526
10	Airtel	441027.40	764.6	65.86	860.55	11.15%	628.75	21.61%	756.9	1.02%	Telecom	BHARTIARTL
11	Bajaj Finance	361172.64	5977	36.52	8045	25.71%	5220	14.50%	5898.4	1.33%	NBFC	BAJFINANCE
12	Kotak Bank	354002.54	1780.5	25.87	1997.55	10.87%	1631	9.17%	1779.5	0.06%	Bank	KOTAKBANK
13	L&T	302617.17	2153.75	31.53	2210.5	2.57%	1456.8	47.84%	2160.2	-0.30%	Infrastructure	BOM:500510
14	Axis Bank	287213.29	933.9	15.67	970	3.72%	618.25	51.06%	935.55	-0.18%	Bank	AXISBANK
15	Asian Paints	278960.10	2912	76.19	3582.9	18.73%	2560	13.75%	2915.95	-0.14%	Paint	ASIANPAINT
16	Maruti Suzuki	255438.42	8454.2	42.1	9769	13.46%	6536.55	29.34%	8369.2	1.02%	Automobile	MARUTI
17	Sun pharma	247191.65	1031.05	60.4	1070.95	3.73%	784.8	31.38%	1032.85	-0.17%	Pharma	SUNPHARMA
18	Bajaj Finserv	221292.51	1391	40.48	3724.2	62.65%	1374.35	1.21%	1387.8	0.23%	Financial Servci	BAJAJFINSV
19	Titan	214719.01	2417.65	68.59	2790	13.35%	1827.15	32.32%	2445.65	-1.14%	Retail	BOM:500114
20	Ultratech Cemer	208975.80	7244.95	31.35	7946	8.82%	5157.05	40.49%	7153.35	1.28%	Cement	ULTRACEMCO
21	Nestle	190752.20	19782.3	88.1	21050	6.02%	16000	23.64%	19873.25	-0.46%	FMCG	NESTLEIND
22	M&M	158785.37	1327.55	16.12	1366.55	2.85%	671.15	97.80%	1319.9	0.58%	Automobile	M&M
23	Tata Steel	147293.60	120.45	5.13	138.63	13.11%	82.71	45.63%	118.05	2.03%	Infrastructure	BOM:500470
	00117 1	*******	****	70.07	101005	0.4007	*****	000401	*****	0.000/		0011155

=ARRAYFORMULA(VLOOKUP(A3:A193,'NSE/BSE Code'!A3:C,2,0))

• The above function is used for fetching data from Industry column.

- =ARRAYFORMULA(VLOOKUP(A3:A193,'NSE/BSE Code'!A3:C,3,0))
 - The above function is used for fetching data from NSE/BSE Code column.
 - To limit data for lookup below function can be helpful.
- = ARRAYFORMULA (IF(A3:A <> "", VLOOKUP(A3:A, 'NSE/BSE Code'!A3:C,3,0),""))

Task 3: Create 2 More Columns "Bear Mode 1" & "Bear Mode 2" with IF ELSE Condition and Stock Status with multiple IF Conditions.

A	В	C	D	E	F	G	H	1	J	K	L	M	N
Task 3 : Create	2 More Column	s "Bear Mode 1"	& "Bear Mode 2"	with IF ELSE C	ondition and Sto	ck Status with	multiple IF Cond	litions.					
Stock	Market cap (in F	Current price	PE Ratio	52 Week High	% Below 52 wee	52 Week Low	% Above 52 We	Yesterday Closin	% Change	Industry	NSE/BSE Code	Bear Mode 1	Bear Mode 2
Reliance	1620922.44	2467.9	25.09	2856.15	13.59%	2180	13.21%	2471.6	-0.15%	Telecom and oil	RELIANCE	No	Task 3 : Cre
TCS	1234544.52	3374.2	30.43	4045.5	16.59%	2926	15.32%	3334.6	1.19%	IT	BOM:532540	No	"Bear Mode
HUL	616301.33	2620.6	63.81	2741.6	4.41%	1901.55	37.81%	2590.05	1.18%	FMCG	HINDUNILVR	No	Condition =
SBI Bank	535431.32	600.05	13	629.65	4.70%	425	41.19%	595	0.85%	Bank	BOM:500112	No	52 Week Hi
HDFC	478914.70	2619.25	19.81	2933.8	10.72%	2026	29.28%	2612.8	0.25%	Financial Servci	HDFC	No	
LIC	450686.76	712.7	23.63	920	22.53%	588	21.21%	705.55	1.01%	Insurance	BOM:543526	No	100
Airtel	441027.40	764.6	65.86	860.55	11.15%	628.75	21.61%	756.9	1.02%	Telecom	BHARTIARTL	No	Yes
Bajaj Finance	361172.64	5977	36.52	8045	25.71%	5220	14.50%	5898.4	1.33%	NBFC	BAJFINANCE	No	Yes
Kotak Bank	354002.54	1780.5	25.87	1997.55	10.87%	1631	9.17%	1779.5	0.06%	Bank	KOTAKBANK	No	Yes
L&T	302617.17	2153.75	31.53	2210.5	2.57%	1456.8	47.84%	2160.2	-0.30%	Infrastructure	BOM:500510	No	No
Axis Bank	287213.29	933.9	15.67	970	3.72%	618.25	51.06%	935.55	-0.18%	Bank	AXISBANK	No	No
Asian Paints	278960.10	2912	76.19	3582.9	18.73%	2560	13.75%	2915.95	-0.14%	Paint	ASIANPAINT	No	Yes
Maruti Suzuki	255438.42	8454.2	42.1	9769	13.46%	6536.55	29.34%	8369.2	1.02%	Automobile	MARUTI	No	Yes
Sun pharma	247191.65	1031.05	60.4	1070.95	3.73%	784.8	31.38%	1032.85	-0.17%	Pharma	SUNPHARMA	No	No
Bajaj Finserv	221292.51	1391	40.48	3724.2	62.65%	1374.35	1.21%	1387.8	0.23%	Financial Servci	BAJAJFINSV	Yes	Yes
Titan	214719.01	2417.65	68.59	2790	13.35%	1827.15	32.32%	2445.65	-1.14%	Retail	BOM:500114	No	No
Ultratech Cemer	208975.80	7244.95	31.35	7946	8.82%	5157.05	40.49%	7153.35	1.28%	Cement	ULTRACEMCO	No	No
Nestle	190752.20	19782.3	88.1	21050	6.02%	16000	23.64%	19873.25	-0.46%	FMCG	NESTLEIND	No	Yes
M&M	158785.37	1327.55	16.12	1366.55	2.85%	671.15	97.80%	1319.9	0.58%	Automobile	M&M	No	No
Tata Steel	147293.60	120.45	5.13	138.63	13.11%	82.71	45.63%	118.05	2.03%	Infrastructure	BOM:500470	No	No
SBI life Insuranc	130568.99	1307	78.07	1340.35	2.49%	1003.5	30.24%	1315.7	-0.66%	Insurance	SBILIFE	No	No
HDFC life Insura	129917.60	604	85.12	678.8	11.02%	497.05	21.52%	598.4	0.94%	Insurance	HDFCLIFE	No	Yes
Pidilite Industries	127340.00	2513	98.38	2918.95	13.91%	1988.55	26.37%	2495.5	0.70%	Chemical	PIDILITIND	No	Yes

In this solution, formula is used to generate Bear Mode 1 & 2 with the given condition.

- = ARRAYFORMULA (IF(A4:A <> "",IF(F4:F > 30%,"Yes","No"),""))
 - Bear Mode 1: % 52 Week High
- = ARRAYFORMULA (IF(A4:A <> "",IF(H4:H < 30%, "Yes", "No"), ""))
 - Bear Mode 2: % 52 Week Low

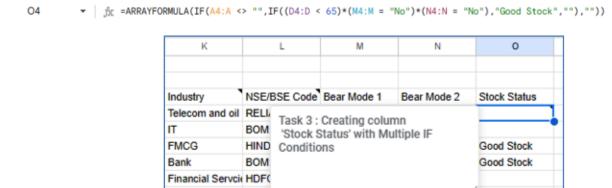
Insurance

Telecom

- =ARRAYFORMULA(IF(A4:A <> "",IF((D4:D < 65)*(M4:M = "No")*(N4:N = "No"),"Good Stock",""),""))
 - This above formula generate for Stock Status with Multiple IF as given.

100

Yes



BOM:545520 NO

BHARTIARTL

Task 4: find out the highest value and categorize.

=ArrayFormula(IF(A4:A <> "", B4:B/LARGE(B:B,1)*100,""))

• For Reference :- new column made for self understand & reference (Market cap (in Rs Cr.)) i.e Cap Size in %.

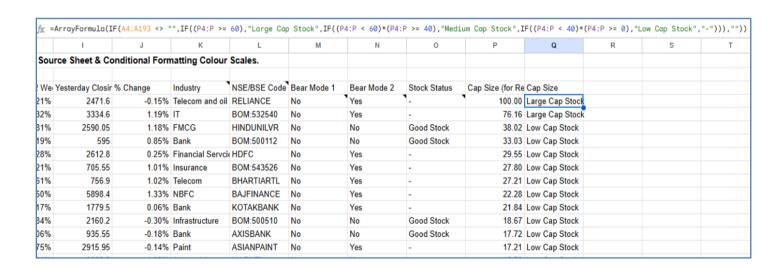


=B4/LARGE(B:B,1)*100 > 60

• To find out highest value of the Market cap.

= ARRAYFORMULA (IF(A4:A193 <> "",IF((B4:B/LARGE(B:B,1)*100 >= 60),"Large Cap Stock",IF((B4:B/LARGE(B:B,1)*100 < 60)*(B4:B/LARGE(B:B,1)*100 >= 40),"Medium Cap Stock",IF((B4:B/LARGE(B:B,1)*100 < 40)*(B4:B/LARGE(B:B,1)*100 >= 0),"Low Cap Stock","-"))),""))

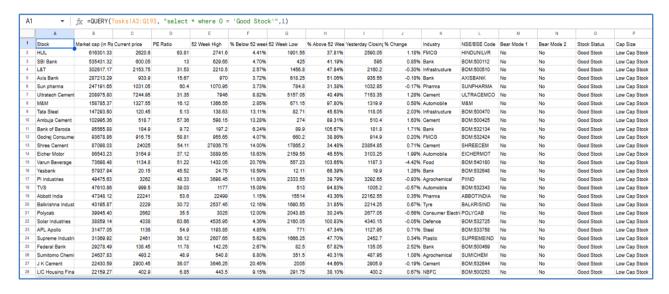
 Categorizing with the help of Highest Value :- 60% and Above (Large Cap Stock); 60% to 40% (Medium Cap Stock); 40% and below (Low Cap Stock).



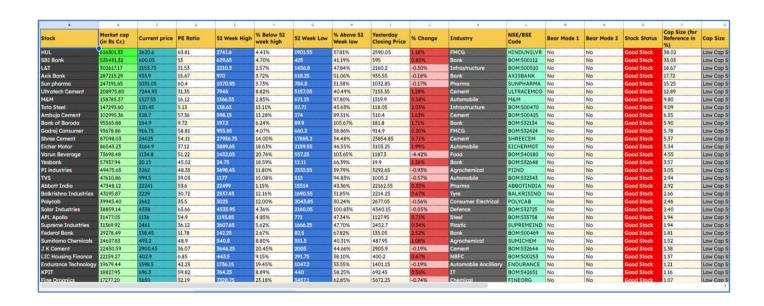
Task 5: Create a new sheet & fetch all Data where Stock Status = 'Good Stock', Proper Formatting like the Data Source Sheet & Conditional Formatting Color Scales.

=QUERY(Tasks!A3:Q193, "select * where O = 'Good Stock'",1)

• By this query, the data is fetch with the condition given only the stock which is Status is 'Good Stock'.



- After fetching data, appropriate condition formatting with different color scales to look data attractive.
- Now it Final Organized Data which will be use to make Dashboard.



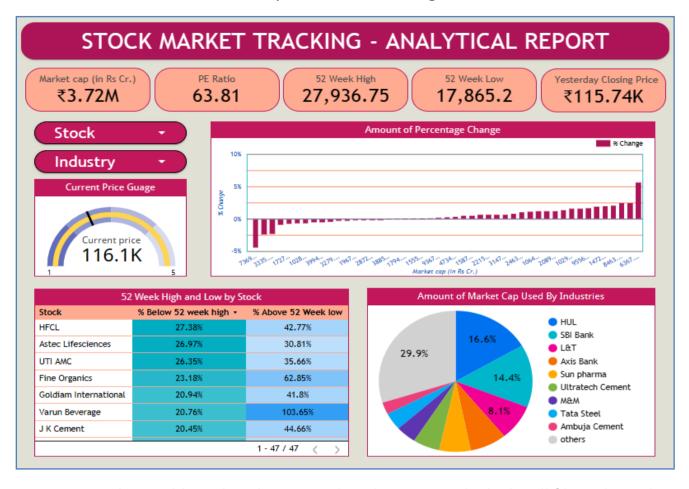
2.) Report Dashboarding

Task 1: Connect the Data Source Sheet which you created above in Task 5 to Google Data Studio.

 For creating Dashboard, Successfully connected to Google Data Studio with Final Organized Data.

Task 2: The Report Dashboard should have the Following:

• This is the Dashboard report for our Final Organized Data.



- In this Dashboard we have two dropdown control which will filtered out the data visualize.
- Scorecard charts, table with heatmap, etc. are used to track report.
- Below URL is to view the Dashboard.

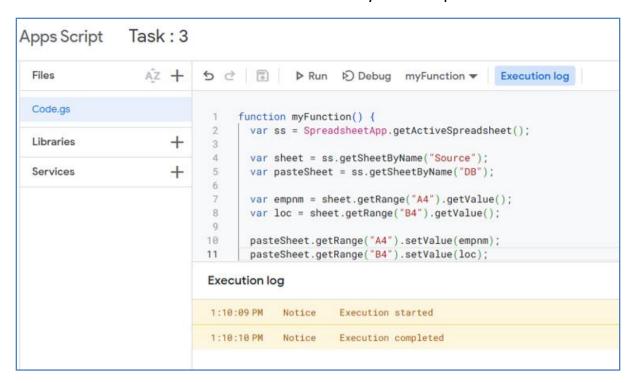
https://lookerstudio.google.com/reporting/86df399a-aa65-4e58-814a-cd389fbaadb1

3.) Google Script task

- From Data Source to DB, all data has been fetched.
- In app script 1st run has successfully executed.



• Then from A2 to A4 and B2 to B4 next by next script run.



- Then from A2 to A4 and B2 to B4 next by next script run.
- All the data has been successfully fetched as same as in given in data source.

