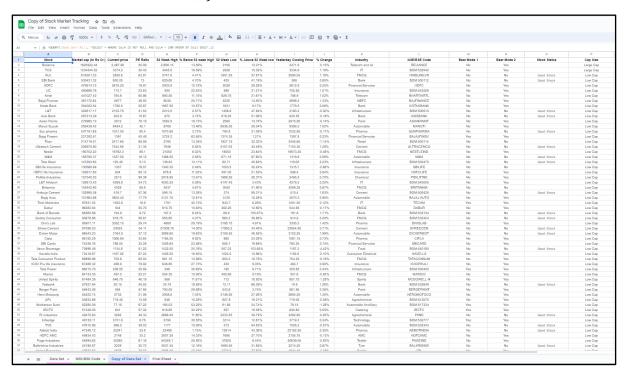# ERP Launchpad Data Analysis Assignment

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1.) Data Manipulation Tasks

Task 1 : First Create a New Sub Sheet & Fetch all the Data from the Sheet called "Data Set" where Data from the PE Ratio is not Blank & PE Ratio < 100 using Query Function and sort the data by Descending of Market Cap Amount.

Query Used: =QUERY('Data Set'!A1:J, "SELECT * WHERE Col4 IS NOT NULL AND Col4 < 100 ORDER BY Col2 DESC",1)

Task 2 : Now Create 2 Columns of Industry & NSE/BSE Code & Fetch Data from the Second Sheet with Vlookup, Make sure the Vlookup Formula is used with "ARRAYFORMULA" meaning formula will be written only once but will be applicable throughout the column,

Also make sure the Formula of Vlookup will be applied only until when data is there in the column, handle this with IF CONDITIONS in that same formula.

Query Used:
For Industry Column: =ArrayFormula(IF(A2:A<>"", VLOOKUP(A2:A,'NSE/BSE Code'!A4:C,2,0),""))
For NSE/BSE Code Column: =ArrayFormula(IF(A2:A<>"",VLOOKUP(A2:A,'NSE/BSE Code'!A4:C,3,0),""))

Task 3 : Now Create 2 More Columns at the End with the Heading "Bear Mode 1" & "Bear Mode 2"

Bear Mode 1 Condition : Use IF Condition to print "Yes" if % Change from 52 Week High > 30 else "No"

Bear Mode Condition 2 : Use IF Condition to print "Yes" if % Change from 52 Week Low < 30 else "No"

Stock Status : Now Create a Column named "Stock Status" & then apply multiple IF Conditions to check if PE Ratio <65, Bear Mode 1 & 2 = "No" then Print "Good Stock" in the column else "".

Query Used:
For Bear Mode 1 Column: =ArrayFormula(IFERROR(((IF((1 - (C2:C/E2:E)) > 0.3, "Yes", "No"))), ""))
For Bear Mode 2 Column: =ArrayFormula(IFERROR(IF((((C2:C/G2:G)-1)<0.3, "Yes", "No"), ""))
For Stock Status Column: =ArrayFormula(IF(AND(D2<65,M2="No", N2="No"),"Good Stock",""))

52 Week Low	% Above 52 Week low	Yesterday Closing Price	% Change	Industry	NSE/BSE Code	Bear Mode 1	Bear Mode 2	Stock Status	Cap Size
2180	13.21%	2471.6	-0.15%	Telecom and oil	RELIANCE	No	Yes		Large Cap
2926	15.32%	3334.6	1.19%	IT	BOM:532540	No	Yes		Large Cap
1901.55	37.81%	2590.05	1.18%	FMCG	HINDUNILVR	No	No	Good Stock	Low Cap
425	41.19%	595	0.85%	Bank	BOM:500112	No	No	Good Stock	Low Cap
2026	29.28%	2612.8	0.25%	Financial Servcies	HDFC	No	Yes		Low Cap
588	21.21%	705.55	1.01%	Insurance	BOM:543526	No	Yes		Low Cap
628.75	21.61%	756.9	1.02%	Telecom	BHARTIARTL	No	Yes		Low Cap
5220	14.50%	5898.4	1.33%	NBFC	BAJFINANCE	No	Yes		Low Cap
1631	9.17%	1779.5	0.06%	Bank	KOTAKBANK	No	Yes		Low Cap
1456.8	47.84%	2160.2	-0.30%	Infrastructure	BOM:500510	No	No	Good Stock	Low Cap
618.25	51.06%	935.55	-0.18%	Bank	AXISBANK	No	No	Good Stock	Low Cap
2560	13.75%	2915.95	-0.14%	Paint	ASIANPAINT	No	Yes		Low Cap
6536.55	29.34%	8369.2	1.02%	Automobile	MARUTI	No	Yes		Low Cap
784.8	31.38%	1032.85	-0.17%	Pharma	SUNPHARMA	No	No	Good Stock	Low Cap
1374.35	1.21%	1387.8	0.23%	Financial Servcies	BAJAJFINSV	Yes	Yes		Low Cap
1827.15	32.32%	2445.65	-1.14%	Retail	BOM:500114	No	No		Low Cap
5157.05	40.49%	7153.35	1.28%	Cement	ULTRACEMCO	No	No	Good Stock	Low Cap
16000	23.64%	19873.25	-0.46%	FMCG	NESTLEIND	No	Yes		Low Cap
671.15	97.80%	1319.9	0.58%	Automobile	M&M	No	No	Good Stock	Low Cap
82.71	45.63%	118.05	2.03%	Infrastructure	BOM:500470	No	No	Good Stock	Low Cap
1003.5	30.24%	1315.7	-0.66%	Insurance	SBILIFE	No	No		Low Cap
497.05	21.52%	598.4	0.94%	Insurance	HDFCLIFE	No	Yes		Low Cap
1988.55	26.37%	2495.5	0.70%	Chemical	PIDILITIND	No	Yes		Low Cap
4147.45	3.43%	4279.2	0.25%	IT	BOM:540005	No	Yes		Low Cap
3050	41.90%	4299.25	0.67%	FMCG	BRITANNIA	No	No		Low Cap
274	89.31%	510.4	1.63%	Cement	BOM:500425	No	No	Good Stock	Low Cap
3125	15.28%	3570.3	0.90%	Automobile	BAJAJ-AUTO	No	Yes		Low Cap
943.7	6.26%	1001.55	0.12%	IT	TECHM	Yes	Yes		Low Cap
482.25	12.80%	544.95	-0.17%	FMCG	DABUR	No	Yes		Low Cap
89.9	105.67%	181.8	1.71%	Bank	BOM:532134	No	No	Good Stock	Low Cap
660.2	38.86%	914.9	0.20%	FMCG	BOM:532424	No	No	Good Stock	Low Cap
3195.15	4.91%	3305.3	1.42%	Pharma	DIVISLAB	No	Yes		Low Cap
17865.2	34.48%	23854.85	0.71%	Cement	SHREECEM	No	No	Good Stock	Low Cap
2159.55	46.55%	3103.25	1.99%	Automobile	EICHERMOT	No	No	Good Stock	Low Cap
860	24.28%	1061.15	0.73%	Pharma	CIPLA	No	Yes		Low Cap
655.7	19.88%	760.25	0.74%	Financial Servcies	SBICARD	No	Yes		Low Cap
557.23	103.65%	1187.3	-4.42%	Food	BOM:540180	No	No	Good Stock	Low Cap
1024.5	13.96%	1192.6	-2.10%	Consumer Electrical	HAVELLS	No	Yes		Low Cap
650.2	15.78%	754.25	-0.19%	FMCG	TATACONSUM	No	Yes		Low Cap
430	9.05%	464.7	0.90%	Insurance	ICICIPRULI	No	Yes		Low Cap
190	8.71%	205.65	0.44%	Infrastructure	BOM:500400	Yes	Yes		Low Cap
455.65	9.18%	501.6	-0.82%	FMCG	MARICO	No	Yes		Low Cap
712	18.93%	857.75	-1.28%	Spirits	MCDOWELL-N	No	Yes		Low Cap
12.11	66.39%	19.9	1.26%	Bank	BOM:532648	No	No		Low Cap
543.6	3.75%	561.95	0.36%	Paint	BERGEPAINT	No	Yes		Low Cap
2146.85	27.26%	2694.25	1.40%	Automobile	HEROMOTOCO	No	Yes		Low Cap
607.8	18.21%	719.05	-0.08%	Agrochemical	BOM:512070	No	Yes		Low Cap
61.85	24.74%	78.15	-1.28%	Automobile Ancillary	BOM:517334	Yes	Yes		Low Cap
557	15.08%	640.65	0.05%	Catering	IRCTC	Yes	Yes		Low Cap
2333.55	39.79%	3292.65	-0.93%	Agrochemical	PIIND	No	No	Good Stock	Low Cap
3314	12.61%	3719.3	0.34%	Technology	BOM:532777	Yes	Yes		Low Cap
513	94.83%	1005.2	-0.57%	Automobile	BOM:532343	No	No	Good Stock	Low Cap
15514	43.36%	22162.55	0.35%	Pharma	ABBOTINDIA	No	No	Good Stock	Low Cap
1690	27.10%	2150.75	-0.13%	AMC	HDFCAMC	No	Yes		Low Cap
37825	6.44%	40639.05	-0.93%	Textile	PAGEIND	No	Yes		Low Cap
1690.55	31.85%	2214.25	0.67%	Tyre	BALKRISIND	No	No	Good Stock	Low Cap

Task 4 : Now find out the Highest value of the Market Cap & then categorize 60% and Above of the Highest Value as Large Cap Stocks, 40-60% as Medium Cap Stocks & 0-40% as Low Cap Stocks in a new Column at last naming it as Cap Size.
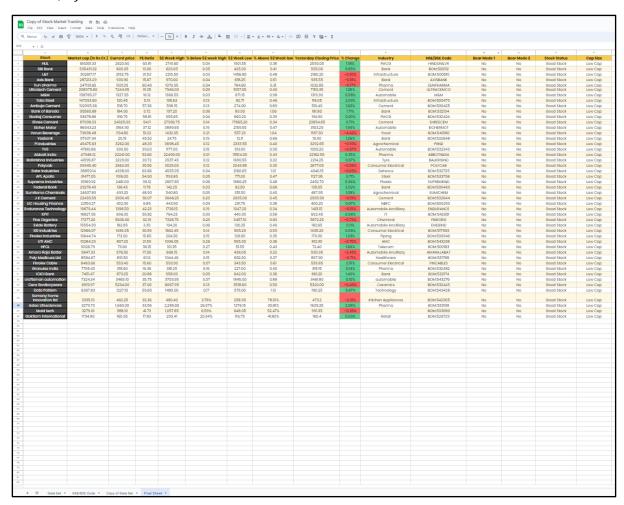
Query Used:
For Cap Size Column: =ArrayFormula(IF(B2 >= Q196, "Large Cap", IF(AND(B2 >= Q197, B2 < Q196), "Medium Cap", "Low Cap")))

Task 5 : Now create a new sheet & fetch all Data where Stock Status = 'Good Stock' which will be your Final Organized Data Source so Create Proper Formatting to this Sheet like the Data Source Sheet & also add Appropriate Conditional Formatting Colour Scales.

Query Used:
For New Sheet: =QUERY('Copy of Data Set'!1:220, "SELECT * WHERE Col15 = 'Good Stock'", 1)

2.) Report Dashboarding

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

Task 2 : Now if specific requirements are given creating Reports is easy, so we keep upto you that how well you understand the Data Set & Provide with Good Analysis which will actually be meaningful & Also Attractive.

Note : The Report Dashboard should have the Following :

1. A Heading
2. Appropriate Filters
3. Scorecard Charts
4. Various Types of Graphical & Tabular Analysis which will help to analzye Data

The following is the screen-shots of my Dashboard that I made

In the Dashboard,

➢ **Stock Selection and Data Display:** Users have the flexibility to select multiple stocks from the filter, allowing them to focus on specific stocks of interest. Once selected, the dashboard displays essential information for each chosen stock, including its Stock Name, Industry, Current Price, 52 Week High, and 52 Week Low. This feature enhances user experience by enabling them to quickly access detailed data for their preferred stocks.

➢ **Market Cap and PE Ratio Scorecard:** The dashboard includes a scorecard that highlights valuable insights about the selected stocks. Users can immediately identify which stock has the Maximum Market Cap (in Rs Cr.), providing a snapshot of the company's size in the market. Additionally, the scorecard indicates the stock with the Minimum PE Ratio, helping users assess valuation. This succinct representation of key metrics aids in making informed investment decisions.

➢ **Industry Histogram Comparison:** Users can explore the distribution of stocks across different industries through histograms. This feature allows users to visualize the frequency of stocks in each industry category. Furthermore, the dashboard enables users to compare Market Cap (in Rs Cr.) and Current Price across these industries. This comparison helps users identify industry trends, potential investment opportunities, and the overall performance of specific sectors.

3.) Google App Script Tasks

Make a Copy of the Above Sheet, Go Inside App Script & Fetch all Data From Source to DB, Give Permissions to Script & Run it Successfully!

Files

Code.gs

Libraries

Services

Debugger

```
1   function myFunction() {
2     var ss = SpreadsheetApp.getActiveSpreadsheet();
3
4     var sheet = ss.getSheetByName("Source");
5     var pasteSheet = ss.getSheetByName("DB");
6
7     var empnm = sheet.getRange("A2:A4").getValue();
8     var loc = sheet.getRange("B2:B4").getValue();
9
10    pasteSheet.getRange("A2:A4").setValue(empnm);
11    pasteSheet.getRange("B2:B4").setValue(loc);
12
13  }
```

▷ Run ⟲ Debug myFunction ▼   Execution log

No breakpoints set

To start debugging, add at least
one breakpoint or "debugger"
statement to your project.

Learn more

Deploy ▼

Apps Script   Untitled project

Files

Code.gs

Libraries

Services

▷ Run ⟲ Debug myFunction ▼   Execution log

```
function myFunction() {
  var ss = SpreadsheetApp.getActiveSpreadsheet();

  var sheet = ss.getSheetByName("Source");
  var pasteSheet = ss.getSheetByName("DB");

  var empnm = sheet.getRange("A2:A4").getValue();
  var loc = sheet.getRange("B2:B4").getValue();

  pasteSheet.getRange("A2:A4").setValue(empnm);
  pasteSheet.getRange("B2:B4").setValue(loc);
```

Deploy ▼