Investment Advisor

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- This project will be based on google sheet and before jumping to understanding you may need to be comfortable with google sheets. Most of the functionalities are same as MS Excel, except for a few differences.

Input Dataset

- Open the below given google sheets and make copies as you will need to work on these:
  - Gsheet 1: https://docs.google.com/spreadsheets/d/1xRMYSr048KLJReIrLDQ8GPlYndUZppGmusixu_NZARE/edit?usp=sharing
    - This data contains the data stocks listed in Indian stock exchange named BSE along with other financial ratios, the sector & industry it belongs to
  - Gsheet 2: https://docs.google.com/spreadsheets/d/1n4iOIlXFGge3ypgb2lekbIOWOpm1Rh9yPDcMPczl4aA/edit?usp=sharing
    - this data contains the income and expense details of someone
  - Gsheet 3: https://docs.google.com/spreadsheets/d/11xyKLtUZW2BSmeqtjUjvM7m3ZU2mJaXMZvuiYLKrcsI/edit?usp=sharing
  - List

Task

Please note all the tasks should work even if someone changes Gsheet 2

- You need to fill the Gsheet 3 using data present in Gsheet 1 and Gsheet 2 (through python)
- You have to use a python library `gspread` to make connection with google sheet and use that to do the below mentioned tasks:

- **Subtask - 1:**
  - Populate Net Income for the month in `sheet1` of Gsheet 3
  - Populate Net Expense for the month in `sheet1` of Gsheet 3
  - Cost incurred in different categories : Food, Other, Transportation, Social Life, Household, Apparel, Education, Salary, Allowance, Self-development, Beauty, Gift, Petty cash - for the month in `sheet1` of Gsheet 3
  - `Available for investment = Net Income - Net Expense` (this has to be populated through python formula and not excel formula)

*** all details has to be calculated using python only*

- **Subtask - 2:**
  - In this task, you need to find out the top 5 companies where the money in “Available for Investment” has to be invested
  - In cell `C27` the user can select the type of investment profile he wants to do
  - Basis that you need to pick the top 5 companies to invest the money `Available for investment` calculated in subtask - 1
  - After applying the below given logic as per the risk profile mentioned, fill the Sheet2 of Gsheet 3 by distributing the amount `Available for investment` equally among those 5 companies
  - Below given logic needs to be applied basis the type of profile

Steps	High Risk Taking	Risk Taking	Moderate Risk Taking	Low Risk Taking
1	Make a new column in Gsheet 1 named “Delta” and populate it with `(52 Week High - price)/(52 week High)`	Make a new column in Gsheet 1 named “Delta” and populate it with `(52 Week High - price)/(52 week High)`	Make a new column in Gsheet 1 named “Delta” and populate it with `(52 Week High - price)/(52 week High)`	Make a new column in Gsheet 1 named “Delta” and populate it with `(52 Week High - price)/(52 week High)`
2	Filter out those where Delta column is positive (>0)	Filter out those where Delta column is positive (>0)	Filter out those where Delta column is positive (>0)	Filter out those where Delta column is positive (>0)
3	Filter out those whose Market	Filter out those whose Market	Filter out those whose Market	Filter out those whose Market

	Cap(Cr) is lesser than 2000	Cap(Cr) lies between 2000 and 5000	Cap(Cr) is between 5000 and 15000	Cap(Cr) is greater than 15000
4	Filter out the column where 10-Year Return(%) is lesser than 8	Filter out the column where 10-Year Return(%) is between 8 and 15	Filter out the column where 10-Year Return(%) is between than 15 and 20	Filter out the column where 10-Year Return(%) is greater than 20
5	Sort the column named Dividend Per Share in descending order and pick the 5 highest value	Sort the column named Dividend Per Share in descending order and pick the 5 highest value	Sort the column named Dividend Per Share in descending order and pick the 5 highest value	Sort the column named Dividend Per Share in descending order and pick the 5 highest value

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- **Subtask - 3:**
  - Compare the median of column Enterprise Value(Cr) across different Sectors. For instance, what is the median enterprise value of Technology sector as compared to Services sector
  - Try to find a relation between `Dividend Per Share` with `Market Cap(Cr)`
  - Count the companies in different `Industry` with positive and negative `3-Year Return`. For instance how many companies in Drugs & Pharma industry have positive `3-Year Return` and how many have that negative. Basis this, decide which industry would you recommend someone to invest if the same return is followed
  - Come up with any one KPI which can help define the best stock across different `Sector`, you may need to learn a little bit of Finance for the same