VALLUM QUESTIONS

**"1. What is equity investing, and how would you define it?**

ANS. Equity investing is basically the investment made by the investors by purchasing shares of a company, with the expectation that it’ll rise in value as capital gain.

We are basically buying a part or percentage of ownership by equity investment which means we can get profit if company does well in terms of profit as we are owning a part of company, we may also have part in company’s decisions.

Shares have potential to offer higher returns in long term.

Factors of key investing: -

Ownership= As we are buying a part of the company we become share holder of company.

Dividends or profit = when companies make profit or the value of shares of company rises the company pays out to shareholders that’s dividend.it can be in the form of cash payments made quarterly or yearly basis.

Risk and reward= equity investment doesn’t always end with profit, it can be risky too as the prices can be volatile, which also means it can give higher returns or make you lose lot of money. But we have some safe investment options also like bonds, mutual funds etc.

Different types of investing: -

Preferred Stocks: These provide a fixed dividend and have priority over common stocks in the event of liquidation.

Index Funds: These funds aim to replicate the performance of a specific stock market index, such as the S&P 500, providing broad market exposure with typically lower costs.

Common stocks: these are most typical shares people buy. They often come with voting rights and potential to receive dividends or profit.

**2. Can you explain the GARP style of investing?**

ANS. GARP(Growth at a Reasonable Price);-

It is an investment strategy that looks for companies expected to grow at an above-average rate but are still reasonably priced. This means you're looking for stocks that have good growth potential but aren't too expensive.

It’s for those who want the potential for high returns but with less risk, focusing on companies that are growing well and aren’t too expensive to buy into.

Benefit of Garp investing;-

It has lower risk as it avoids overvalued stocks, so the investors reduce the risk of significant losses when market correction occurs.

It gives consistent returns, as it aims to achieve steady and reliable returns by investing in companies that grow steadily overtime.

Its investors have diverse portfolio of companies from different sectors.

Points to consider GARP;-

Revenue growth: assess company’s growth in addition to earning growth. Steady revenue growth can be an indicator of company’s ability to expand its market share and increase profitability

Consistent earning growth

Competitive advantage

Healthy financials

Risk awareness

**3. When analyzing companies listed on BSE & NSE, how do you differentiate between GARP style opportunities, growth-only, and value-only companies?**

ANS. When analyzing companies listed on the BSE and NSE, distinguishing between GARP (Growth at a Reasonable Price) opportunities, growth-only, and value-only companies involves looking at specific characteristics and financial metrics. GARP opportunities are companies that show steady and above-average earnings growth but are not overly expensive. These companies typically have a PEG ratio around 1 or lower, a moderate P/E ratio, and a consistent growth rate of 10-20% annually, making them a balanced investment.

Growth-only companies, on the other hand, are expected to grow their earnings at a very high rate, often above 20%. These companies usually have high P/E ratios because investors are willing to pay a premium for their high growth potential. They often reinvest profits into the business for expansion, which means they might not pay dividends.

Value-only companies are those trading at lower prices relative to their fundamentals, indicating they are undervalued. They often have low P/E and P/B ratios, showing that they are trading at a discount. These companies might have slower growth rates but are financially stable and often pay high dividends, making them attractive for income-focused investors.

GARP opportunities offer a mix of growth and reasonable pricing, growth-only companies prioritize high growth regardless of price, and value-only companies focus on undervaluation with stable returns.

**4. How comfortable are you with Python? Please provide details about your knowledge and practical application level.**

ANS. I am quite confident with python. I have a moderate level of knowledge in Python, primarily focused on data analysis and visualization.

Library I have utilised to gain insights or manipulate data;-

Pandas: Proficient in data manipulation, cleaning, and analysis.

NumPy: Experienced with numerical operations and data computation.

Matplotlib & Seaborn: Skilled in creating a variety of visualizations to communicate data insights.

Faker: Familiar with generating synthetic data for testing and development.

Practical Application:-

Exploratory Data Analysis (EDA): Conducting comprehensive EDA to understand datasets.

Data Cleaning: Handling missing values, correcting data types, and removing duplicates.

Data Visualization: Creating effective and customized plots to illustrate data trends.

Data Simulation: Generating synthetic data for testing algorithms.

Projects:

I have worked on several projects using these libraries like Zomato delivery ana;ysis in Bangalore and many more.

I performed eda on google playstore data analysis and cleaned the data using basic libraries than performed different statistical functions

**5. Using Python, how would you determine if a company listed on BSE & NSE follows the GARP style, considering the available data for approximately 6000 companies?**

ANS. To determine if a company listed on the BSE & NSE follows the GARP style using Python, you would need to analyze the financial data of each company, focusing on key metrics such as the Price-to-Earnings (P/E) ratio, the Price/Earnings to Growth (PEG) ratio, and the earnings growth rate. Here’s a step-by-step guide on how to do this:

Steps:

1. Data Collection:

• Gather financial data for approximately 6000 companies listed on BSE and NSE. This data can include P/E ratio, PEG ratio, and historical earnings growth rates. You can source this data from financial databases or APIs like Yahoo Finance, Alpha Vantage, or others.

2. Data Preprocessing:

• Clean and preprocess the data to ensure it’s in a suitable format for analysis. This might include handling missing values, converting data types, and ensuring consistency in the data.

3. Calculate PEG Ratio:

• The PEG ratio is calculated as:

PEG Ratio=P/E RatioEarnings Growth RatePEG Ratio=Earnings Growth RateP/E Ratio

• Ensure the earnings growth rate is expressed as a decimal (e.g., 15% growth should be 0.15).

4. Filter for GARP Criteria:

• Use the following criteria to identify GARP stocks:

• PEG Ratio: Less than or equal to 1.

• Earnings Growth Rate: Consistent and reasonable growth rate, typically between 10% to 20%.

• P/E Ratio: Moderate, not excessively high.

5. Implementing in Python:

**6.Based on your knowledge, what insights can you derive and showcase about the following stocks: SBIN, Adani Enterprises, HUL, Tata Steels, Moil?**

ANS.

State Bank of India (SBIN)

SBIN is the largest public sector bank in India, which means it plays a big role in the country's banking sector. It has a steady stream of income from various services like retail banking and corporate banking. The bank has good growth potential because as India's economy grows, so does the need for banking services. However, it also faces risks like bad loans (non-performing assets) and competition from private banks. Generally, it trades at moderate P/E ratios compared to global peers, reflecting its stable yet somewhat conservative market perception.

Adani Enterprises

Adani Enterprises is a big conglomerate involved in everything from energy and resources to logistics and agribusiness. This diversification helps it buffer against downturns in any one sector. The company is known for its aggressive growth strategy, especially in renewable energy and infrastructure, which aligns well with India’s growth plans. However, it carries significant debt and its stock price can be quite volatile. Investors need to be cautious about regulatory changes and environmental issues that could impact its various projects.

Hindustan Unilever Limited (HUL)

HUL is a giant in the FMCG sector, known for its wide range of popular consumer brands. It enjoys steady revenue growth thanks to strong brand loyalty and effective supply chain management. With rising consumer spending and deeper penetration into rural markets, HUL has strong growth prospects. It typically trades at high P/E ratios because of its consistent performance and strong brand equity. Risks for HUL include fierce competition and changes in consumer preferences.

Tata Steel

Tata Steel is one of the biggest steel producers in India and has a substantial presence globally. Its revenue and profitability are highly cyclical, tied closely to global steel demand and pricing. The company is focused on expanding capacity and improving efficiency, which should help in the long run. Tata Steel’s stock tends to be volatile, reflecting the ups and downs of the steel market. It faces risks from fluctuating commodity prices, stringent environmental regulations, and global trade issues.

MOIL (Manganese Ore India Limited)

MOIL is the top producer of manganese ore in India, a key ingredient for steel production. The company’s revenue depends on the demand for manganese in steel manufacturing, making it quite cyclical. MOIL is working on increasing its production capacity, which should help it capitalize on the growing steel industry in India. Its stock usually trades at lower P/E ratios due to the cyclical nature of the mining industry. Key risks include commodity price volatility, mining operational challenges, and regulatory changes

**7. Are you familiar with web scraping techniques?**

ANS. Yes, I'm familiar with web scraping techniques. Web scraping is the process of extracting data from websites. It involves writing code to automatically retrieve and parse HTML or other structured data from web pages. Here are some common techniques and tools used in web scraping:

1.Beautiful Soup: A Python library for parsing HTML and XML documents. It provides easy-to-use methods for navigating and extracting data from web pages.

2.Scrapy: A powerful Python framework for web crawling and scraping. It allows you to define rules to extract data from websites and provides tools for managing the scraping process.

3.Selenium: A web automation tool that can be used for web scraping by simulating user interactions with web pages. It's useful for scraping dynamic or JavaScript-rendered content.

4.Requests: A Python library for making HTTP requests. It can be used to fetch web pages and retrieve their HTML content, which can then be parsed using other libraries like Beautiful Soup.

5.XPath and CSS Selectors: XPath is a query language for selecting nodes from an XML document, while CSS selectors are patterns used to select elements in HTML documents. Both XPath and CSS selectors are commonly used in web scraping to locate and extract specific elements from web pages.

Web scraping can be a powerful tool for gathering data from the internet for various purposes such as data analysis, research, and building datasets for machine learning models. However, it's important to be mindful of ethical considerations and to respect the terms of service of the websites you are scraping.

**8. If tasked with extracting the number of NRIs across PMSs from SEBI's monthly reports for June '23, Sep '23, Dec '23, and Mar '24, how would you approach this task in terms of process, time, output file, and data accuracy?**

ANS.

we can systematically extract the number of NRIs across PMSs from SEBI's monthly reports, ensuring accuracy and reliability in the extracted data while managing the time required for the task

Process:

1. Review SEBI Reports: Understand the structure and format of SEBI's monthly reports for the specified months to identify where the information about NRIs across PMSs is located.

2. Identify Data Source: Determine if the reports are available in a consistent format on SEBI's website or if they need to be obtained through other means, such as requesting them directly from SEBI or using a data provider service.

3. Web Scraping or Data Extraction: Use web scraping techniques or data extraction tools to retrieve the relevant data from the SEBI reports. This may involve parsing HTML tables or other structured data formats.

4. Data Cleaning and Transformation: Clean and preprocess the extracted data to ensure consistency and accuracy. This may involve removing unnecessary characters, converting data types, and handling missing values.

5. Extract NRI Data: Identify the specific sections or tables in the reports that contain information about NRIs across PMSs. Extract this data for each of the specified months.

6. Aggregate Data: Aggregate the extracted NRI data across all the months to compile a comprehensive dataset.

7. Analysis and Reporting: Analyze the extracted data to identify trends or patterns in the number of NRIs across PMSs over the specified time period. Prepare a report summarizing the findings.

Time:

• Data Extraction: The time required for data extraction will depend on factors such as the availability of the reports, their format, and the complexity of the web scraping or data extraction process. It may take a few hours to develop and test the extraction script.

• Data Cleaning: Cleaning and preprocessing the extracted data may take additional time, depending on the quality and consistency of the data.

• Analysis: Analyzing the extracted data and preparing the final report may take a few hours to a day, depending on the depth of analysis required.

Output File:

• The output file could be a CSV (Comma Separated Values) file containing the extracted NRI data for each month, along with any additional information such as the date of the report and any relevant metadata.

Data Accuracy:

• To ensure data accuracy, it's important to validate the extracted data against the original reports and perform sanity checks to identify any discrepancies.

• Double-checking the extraction code and data cleaning steps can help minimize errors.

• It's also a good practice to document any assumptions or limitations in the data extraction process.

**9. What configuration of devices do you believe is necessary to perform these tasks on a daily basis?"**

ANS. As much as I am aware presence of certain tools in computer and computer with some important tools are required. I never have to install or look for alternative in my device to perform these tasks but I have seen some of batchmates struggle when they don’t have required device

My computer has:

Processor: Intel i5

RAM: 16GB

Storage: 512GB SSD

Software: Python with essential libraries (pandas, BeautifulSoup, Selenium), VSCode for coding, and Jupyter Notebook for data visualization.

Internet: Reliable high-speed connection