This is like answering someone's question.. "What are you doing as a Capstone Project" or "What is your Capstone Project" or "Can you tell something about your Capstone Project". Please write a Minimum 500 and Maximum 1000 Characters.This Question Carries One Mark.

Your answer



/////Currently, in India we have very few investment options left where we can expect an annual return of more that 8% considering the high inflation rate of 6%. Any investment made which gives less than 6% annual return implies burning hard earned savings.

As we all know in the recent two years the stock market is the only investment option where we can expect a minimum of 7-10% annual returns and there is no upper limit to these returns. This is only possible when investors are financially literate.

With the help of this project, I would try to bring this financial literacy to the investors so that they can take calculative and confident risks without giving hefty fees to their brokers.

This project aims to simplify the fundamental analysis of all the stocks of various sectors available in the market and also generate a diversified portfolio for long-term risk-free investments.

The fundamental analysis will be performed with the help of various different indicators like quantitative analysis, industry analysis, economic analysis, company financials, and company quarterly reports.

The companies will be ranked in each sector depending on their performance with these indicators and the best-performing stocks will be added to a diversified portfolio.

It basically reasons for your choice of this project from so many other options that are available. How it aligns with your interests, personality, strength, skills, ambitions or passion. Please write a Minimum 500 and Maximum 1000 Characters. This Question Carries One Mark.

Your answer



Since the past year, I have been very much interested in the stock market and I like studying the functioning of the stock market and the psychology of investors. The myth, investing in the stock market is a gamble disappoints me. I believe investing in the stock market is very logical and quite predictable in long run and all we need is to study the company's financials and future scope before being a shareholder to the company. So, with this project, I want to reduce the efforts and time of the investors by doing this fundamental analysis part for them.

I like working and bringing out insights from data. It fascinates me how data can create a story. Lately, I have been working on many data science and data visualization projects and I like solving challenges that come along when you work with data. With this project, I would get a chance to work with a lot of data and solve these challenges. The research and study behind this project will automatically elevate my financial acumen.

What issue or need it addresses. Please write Minimum 500 and Maximum 1000 Characters.This Question Carries One Mark.

Your answer



Currently, in India, there are two kinds of individual investors. One, who believes that investing in the stock market is risky and invest in the traditional low-risk investment options like FD’s and Real Estate which provides very low returns 5% and 7% respectively more or less equal to the current inflation rate. The second type of investor believes in the stock market but gives hefty amounts of fees to their brokers for getting just 10-12 % returns due to a lack of financial knowledge and time.

But with this project, investors could easily see the fundamental analysis behind each stock and select the best stocks from each sector for their portfolio. This would help them in taking wise, calculative, and confident risks before buying any stock.

A company with great fundamentals and financial history directly impacts its returns in the long term. Plus, more investors investing in the market confidently and stressless will directly impact the economy of our country.

Who will be the potential clients/customers/users/startups/beneficiaries of the project. Describe appropriately. \*

In this project, there would be a website that will be accessible to all the investors who want stock suggestions for long-term investment.

There would be a sector-wise ranked stock list based on fundamental indicators. The project aims to provide literacy to novice investors and anyone willing to learn in the stock domain. It would simplify the process of creating a portfolio for individual investors, retail investors, value investors, growth investors, buy and hold investors, day and swing traders, societies, trusts, HNI’s, FII’s, and stockbrokers.

What will be the innovation in this project?

This project aims to simplify the investment strategy for a novice investor. The objective of the project is to develop a model which will focus on the fundamental analysis of different stocks to suggest good performing stocks for long-term and short-term investments for high returns. The indicators such as debt to equity ratio, price to earnings ratio, valuation of the stock, Earnings per share, return on equity, etc. will be evaluated to rank the stocks.

All these conclusions and rankings provided by the model will be displayed on an appealing, undemanding, and easy-to-use website with an explanation of each and every indicator the stock has been gone through. Investors can pick the top stocks from each sector’s ranking to create a strong low-risk portfolio and fulfil their financial goals.

The project also aims to bring financial literacy to the investors so that the investors can take better well-informed decisions and know the company’s fundamentals before being a shareholder in it.

How it will be different from similar existing solutions. \*

All the stock market-related projects generally focus on technical analysis and predict stock prices based on market trends. These projects generally do not have a good accuracy as the market is full of uncertainties. Hence, hinders reliability. But when we focus on fundamental analysis the chances are high that the stock with good fundamentals will grow in long run thus giving high returns to the investors.

Websites like MoneyControl, Yahoo Finance, and Screener provide the company financials and all company-related information but do not weigh stocks on any fundamental principles. It’s challenging and complicated for novice investors to study these financials on their own. With this project, I would simplify these financials to them with my fundamental analysis indicators.

Portals like Smallcase and Zerodha help you build a diversified portfolio, but they do not provide individual stock information and rankings. They do not explain on what basis is a particular stock added to their readymade portfolios. This project will rank all the stocks in different sectors based on different fundamental indicators and would explain how a particular stock is best in its sector.

What makes it challenging enough to be chosen to be done in four months (Aug-Nov) \*

The fact that before developing this project I myself would have to go through and study all the fundamental indicators thoroughly and how these indicators affect every sector of the market. A lot of economics and maths are involved when you work on a stock market-based project. When you work on a project like this you have to deal with hundreds of companies and their financials which means there would be a lot of financial data to be dealt with.

This involves a lot of data cleaning, getting data from a reliable source, and checking the integrity of the data. The second challenge would be to create a presentable website and explain all the fundamental indicators accurately. The website must be attractive and sophisticated with all the important information unveiled. This would be a huge project involving a lot of study and research. Hence definitely it cannot be completed in 2-3 months, But I'll give my 100% to complete the project within four months.

How it reflects and uses the knowledge gained as part of your UG curriculum covered in the last three years \*

In the last three years, we were extensively taught python. In fact, it was the first language we were made familiar with. In the first semester, we were taught about the basics of python how it differs from other languages and how it simplifies complex tasks. In the 5th and 6th semesters, we were made aware of the vast varieties of libraries in python. The ECSE303L has taught me the importance of data cleaning and how it is done. How bias in data can affect our model. How null values should be treated, lemmatization, stemming, tokenization, and many more.

Most importantly, the free will in all these semesters to create projects in whatever language we want has helped me gain exposure to the python language.

Also, the introduction of EHSS203L in the 7th semester has motivated me to do this project.

How you will measure the success/outcome/quality of your project \*

As Planned, I would create a model to carry out fundamental analysis on stocks of various sectors of the market such as construction, automobiles, food processing, service, etc. All the stocks in these sectors will undergo fundamental parameters like P/E ratio, Debt to equity ratio, Sales target, revenue growth, and many more and will be ranked on the list. If any of the top 5 stocks from each sector is found in 70% of the already famous mutual funds portfolios such as ICICI Prudential and Tata Equity. I would consider my project outcome as a successful one. Because this proves that my stock ranking is legitimate, and any novice investor can invest in these stocks with complete confidence.

Resources required for the project and the feasibility of their availability as per the plans \*

Tools:

Python: The model for the fundamental analysis will be developed in python. Python has a vast number of libraries such as NumPy, Pandas that simplify working with datasets.

Django: It is a python-based tool that will be used to create the frontend and backend of the project.

HTML & CSS: It is a markup language that combines with CSS and is used to design web pages.

Datasets:

The data for the project will be accessed through web scraping from finance-based websites like MoneyControl and Yahoo Finance.

If you are a team of 2 or more then clearly define responsibilities with name and how each member should be assessed differently \*

The project requires a lot of finance-based study and research, and it is only possible when an individual is fascinated by the finance and stock market domain. Hence, it is difficult to find a person that is so deeply interested in the stock market like me and give 100% to the idea. Plus, I choose the project to improve my financial acumen and learn the details and the basics of the market. I am completely novice to the website designing part of the project. I believe working independently on the capstone project from scratch will help me learn these tools better, improve my skills and elevate my confidence.

Short and long term planning with detailed and logical steps and timelines \*

Step 1: The first part of the project requires a detailed study and research on the various fundamental analysis parameters my model will be working on. Then, collect information of different stocks and sectors and get into the economics of each indicator. Next step is to Analyse the stocks information available on different finance platforms and how these indicators influence the stock price. Understand the company’s Balance P&L sheets. All this would be done with the help of financial blogs, fundamental analysis courses, and various other sources. The two major sources would be the fundamental analysis course by CA Rachna Ranade and the fundamental analysis series by Vishal B Malkan. (Aug 15 – Sept 30)

Step 2: The second part of the project is to implement all the financial research using python. This would be done by web scraping all the stock information from financial websites such as Money Control, Yahoo Finance, Screener, etc. After scraping, the data would be added into the pandas dataframe and mathematical operations would be performed on the data. Before these operations, a lot of data cleaning would be required. Then these mathematical results will be compared with the pre-set indicators. After this, the next step would be to rank stocks on the basis of the previous step. (Oct 1 – Oct 20)

Step 3: The third part of the project is to display all the conclusions and the rankings of the stocks on the website. The website will give the description of each and every stock and the working of each and every indicator that is influencing the ranking. (Oct 20 – Nov 10)

Step 4: The last part of the project is to create and display a diversified portfolio of stocks that would be the safest option in long-term investing on the basis of the company's financials and fundamentals in various sectors. (Nov 10 – T day)

Evidence/literature/research/survey etc. in support of the hypothesis or idea to be successful. (Local/National/International Context) \*

Currently, in India, we have very few investment options left where we can expect an annual return of more than 8% considering the high inflation rate of 6%. Any investment made which gives less than 6% annual return implies burning hard-earned savings. With keeping this in mind a lot of the traditional investors are trying to move towards stock and crypto trading. Although the returns are high, it requires a proper and thorough study which requires a lot of time, effort, and financial literacy.

Refer: <https://www.financialexpress.com/money/surprise-shift-why-ppf-scss-fd-nsc-ssy-investors-are-turning-to-stock-markets-amid-pandemic/2276096/>

With this project, I am going to solve this problem and simplify the investment process for the novice. I am giving a step up to novice investors and help them avoid a time-consuming process. With the help of my fundamental analysis model, they would be able to invest in long-term good-performing stocks.

Refer: <https://education.howthemarketworks.com/fundamental-analysis/>

The project also aims to financially literate the investors before being a shareholder to a company and save them from hefty commissions that their brokers charge for marginal returns.

Refer: <https://www.financialexpress.com/market/only-27-indians-are-financially-literate-sebis-garg/2134842/>

Refer: <https://www.investopedia.com/ask/answers/08/trading-frequency-commissions.asp>

With my fundamental analysis, they can build their own low-risk portfolio.

Refer: <https://insight.kellogg.northwestern.edu/article/portfolio-construction-investing-models-fundamental-analysis>

Stock diversification i.e., picking up stocks from different sectors of the market generally nondependent sectors reduces volatility and also increase the chance of high long-term returns. For Example, Information Technology and FMCG sectors are independent sectors whereas Fertilizers and Agriculture sectors and dependent on each other. My model will get the best stocks from each sector so that the investors can choose the sectors they want to invest in and the best stocks from that sector will be displayed to them.

Refer: <https://www.investopedia.com/investing/importance-diversification/>

Give Names of Three Persons with emais ids whom you have discussed the details of the project and what was their reaction/suggestion. \*

Dr. Palakh Jain ([palakh.jain@bennett.edu.in](mailto:palakh.jain@bennett.edu.in)) – when I contacted her and explained the idea, she was very much thrilled to hear the process and gave a thumbs up.

Tushar Mittal ([tm4251@bennett.edu.in)-](mailto:tm4251@bennett.edu.in)-) I had discussed my idea with him, and he was very intrigued upon hearing it. Not coming from a finance background, he really wanted to understand all of these things in depth. He even offered me any technical help that I might require in future.

Praveen Nagpal (nagpal.praveen@gmail.com) – when I explained the entire idea to my father, he was riveted, and he believes if the idea implementation is successful it would help a lot of novice investors in their early investments.

List Three Projects with their Brief that you have done in the First year, Second year and Third year of your B.Tech Degree. Also list your teammates in each Project. \*

Teammates: Daksh Mehta, Kabir Gujral, Manan Negi, Shivaye Bahl. For the first year project, I and my teammates created a hotel management system, where a user could book, edit or delete their reservation.

Second Year Project : ML- Crowd Counting Using SSDC-Net

Teammates: Kamakshi Raya, Kaamyak Pant, Sneha Kilari

Training the Shangai-Tech Dataset to predict total number of individuals in a frame with the help of ROI pooling and Supervised Spatial Divide and Conquer Network.

Third Year Project: Comparison between CPU and GPU performance for image processing.

Teammates (Daksh Mehta, Manan Negi, Kanishka Pandey and Shivaye Bahl) and I decided to create a project which will implement and compare various image processing algorithms running on both CPU and GPU.

Risk Analysis (What are the factors which pose risk of failure of your project and risk of not completing your project by deadline) \*

The risk that concerns me each sector performs and operates in a completely different way. So, I must be very careful with the indicators I choose. Any indicator which does not work for the desired sector might jeopardize all the stock rankings in that desired sector. Another risk is that the data I must bring in must be accurate and correct as it can affect my model's mathematical calculations and give improper results. Also, I must restrict my goals within my timelines. If any part of the project crosses the deadline it would be very difficult to cope up.

List down the Ethics, Privacy, Moral and Legal issues related with the project \*

My project will follow all the stated norms and guidelines. The financial data that I am going to use is openly available in the market. It won’t be affecting any organization directly or indirectly. All the results delivered by my model will be fair and will be unbiased towards any sector, industry, or company.

As it involves financial suggestions, I would try to make my model as accurate as possible. My project won’t be clashing with any existing projects or start-ups as the idea is completely new in itself.

Due to the volatile nature of stocks people often perceive it as gambling. The stock market isn’t just based on chance like gambling. The stock market isn’t just based on chance like gambling but a variety of factors like economic conditions, company information and so on. You can always tip the scales in your favour by having adequate research. StockedIT can help you in this research.

StockedIT simplifies the fundamental analysis of all the stocks available in the sector. The companies are ranked in each sector depending on their performance with these indicators and the best-performing stocks for long-term risk-free investments.

The fundamental analysis will be performed with the help of various different indicators like quantitative analysis, industry analysis, economic analysis, company financials, and company quarterly reports.

The companies will be ranked in each sector depending on their performance with these indicators and the best-performing stocks will be added to a diversified portfolio.