

School of Computer Applications
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Software Requirements Specification
On
BIG BULL

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1. EXECUTIVE SUMMARY

The Big Bull is a complete investment and portfolio management analyzing tool. The tool provides efficiently analysis for the stock data. The stock market is highly volatile in nature so that it's difficult to predict the stock market price. But we can do the analysis based on how the stock will perform in future by predicting the price range of the stock. The BIG BULL ultimate goal is to maximize the investment and expected return within an appropriate level of risk exposure. It is difficult to handle multiple investments. So the BIG BULL comes with a login where user can login to the system.

The user can add their stock according to their risk exposure so that user can keep track on the stocks. The stocks which added will comes in expected return of the investment strategies we choose. The key to effective portfolio management is the long-term mix of assets. Generally that means stocks. Generally, that means stocks. Diversification involves spreading the risk and reward of individual securities within an asset class or between asset classes. Because it is difficult to know which subset of an asset class or sector is likely to outperform. Diversification seeks to capture the returns of all of the sectors over time while reducing volatility at any given time.

2.PROJECT OVERVIEW

2.1 Objective Of The Project

This project aims at building a web App that help the user's to maximize their profit by their investment. It will help the users to analyze individual stocks and make better decision. By adding the stocks to their portfolio the user can analyze the stock individually and accurately. It will help the users to better understanding of the stocks.

2.2 Stake Holders

The main stakeholders who use the “BIG BULL” system and achieves benefits from the system are Investors, Shareholders of the companies, individual investors, angel investors, institutional investors.

The goal of each stakeholders is to maximize the profit from their investment so that the system can help to generate profit from their investment. BIG BULL is a useful tool for each of the stakeholders because they can make better decisions according to that. The investment and recommendation of the stocks made by BIG BULL are for educational purpose only.

2.3 Scope of the Project

The main scope of the project is to simplify the difficulty in investment problem of the user's. The main aim of the project is to maximize the profit by using the BIG BULL tool.

We use stock open price ,close price ,volume, market capitalization ,current price and which industry they belongs to these are the values that are considered . There are many other factors affecting the price of STOCKS and that is not taken into consideration while most of those values are difficult to get from companies profile (Balance Sheet, institutional investors transaction, cash flow etc.,) assuming that all those factors have a steady value

2.4 Feasibility Analysis

Feasibility study is test of system proposal according to its workability, impact on organization, ability to meet the needs, effective use of resources. During the study, the problem definition is crystallized and aspect of the problem to be included in this project is determined. The result of the feasibility study is a formal proposal. If the proposal is accepted, I continue with the project “**BIG BULL**” which aims to maximize the profit of each individual users those are login to the system.

2.4.1 Technical Feasibility

The project can be said to be technically feasible because there will be less number of errors because the whole project have less number of modules and so the errors if found, can be debugged very well and all the bugs can be removed. The system is implemented on locally deployed. So it is very easy to grant and revoke access to actors in case of a need. The system requires no special expertise to operate it because the UI is very user friendly. For the development of the system some expertise of coding is necessary . for better understanding of the code.

2.4.2 Operational Feasibility

Operational Feasibility of the entire application is checked, whether the system will be used by the users if it is developed. Also checked whether the system meets the users expectations and solve the current problem that is in the business. After careful checking it is found that there is no barriers for implementing the system. Thus it is operationally feasible.

2.4.3 Schedule Feasibility

Schedule feasibility of the system is checked, whether we can implement the system on within the time allotted. Project schedule is created and checked how reasonable the project schedule is and it is found the project can be completed on time. Thus the project is schedule feasible.

3. OVERALL PROJECT PLANNING

3.1 Development Environment

Processor : AMD RYZEN 5

Hard Disk : 500 GB Hard Disk

Network : Wi-Fi Internet or Cellular Network

Software Specification

Operating System : Windows 11 Home

Front End : HTML, CSS ,JS

Back End : Python, DJANGO

Database : SQLite

Tools used :

IDE- Vs-code

Browser - Brave,Chrome

Packages Used :

Real Time Data Fetching: Y-finance

Data Visualization : Pyplot/Matplotlib

Algorithm Used:LSTM/FBPROPHET

3.2 Constraints

i. Time Constraints

Time is a very important factor in this project. The system should be developed, tested and deployed as per the project schedule

3.3 Assumptions and Dependencies

ML Model is created using a time series analysis which uses only two parameters those are date and price, volume, market capitalization, open price, close price at that particular date. There are many other factors affecting the price of stock and that is not taken into consideration while creating the model assuming that all those factors have a steady value.

3.4 Process Model

Iterative process model is used to build the project. The incremental build model is a method of software development where the model is designed, trained and tested incrementally until the product is finished. It involves both training and testing. The product is defined as finished when it satisfies all of its requirements. This model combines the elements of the waterfall model with the iterative philosophy of prototyping

4. ITERATION PLANNING

4.1 Schedule

Task	Duration	Start Date	End Date
System Study			
System Analysis			
Design			
Coding and Testing			
Deployment			

5. HIGH LEVEL SYSTEM ANALYSIS

5.1 User Characteristics

Administrator is the primary user of this system. He/she performs the necessary functions like uploading the input values and then the machine help for best investment strategy.

5.2 Summary of system features/Functional requirements

5.2.1 Functional Requirement 1 : Administrator

Introduction:

Admin has to insert values of the stock details retrieved from y-finance for stock data

Input: stock data, Industry data

Processing: Compare with the dataset

5.2.1 Functional Requirement 1 : User

Introduction:

User will add the stocks to their portfolio

Input: stock name, investment amount

Processing: Compare with the dataset

Output : predict the future price, and the right investment strategy. The added stock will be shown on the portfolio with visualization.

5.3 Non Functional Requirements / Supplementary Specification

i. **Accuracy:** The level of accuracy in the proposed system will be higher, since we used large volume of data to build the model. Thus the price is calculated accurately

ii. **Reliability:** The reliability of the proposed system will be high.

iii. **Portability:** The main benefit of this proposed system is its portability. It can be implemented in any computer system that is it can be accessed from cloud platform.

iv. **Integrity:** Only the system administrator has the right to access the dataset or cloud

5.4 Use Case Diagram

