University Institute of Information Technology
PMAS-Arid Agriculture University, Rawalpindi

Project Proposal
For
Trading Track using React Js and Stocks Forecast using AI

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(Original version)

Project ID: _____
(ID will be assigned by coordinator)

- **Please select the appropriate category of your project** *(Select multiple if required)*

A-Desktop Application/Information System	☐	**B**-Problem Solving and AI	☐
C-Web Application/Web Application based Information System.	☑	**D**-Simulation & Modeling	☐
E-Smartphone Application	☐	**F**-Smartphone Game	☐
G-Image Processing	☐	**H**-Networks	☐
I- Other: _____	☐		

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TABLE OF CONTENTS

1. Introduction:

It's a relatively common phrase that "the world is a global village" and not just these days, it has been like this for quite some time now. Trading is something that's almost as old as time, dating back to the pre-historic times and it never deteriorated in terms of popularity since the beginning. Trading these days is a skill that is compulsory to master. We are creating an application for Traders and it is going to be referred to as **Trading Track**. It literally keeps tabs and tracks on all the activities that matter for traders. It helps traders in making proper decisions and commence trading without a hitch. As it uses AI technology to mesh the historical and current data, it winds up creating best suitable decisions for traders. Traders that are going to use our platform up to its full potential, are bound to have an astounding jumpstart.

2. Literature Review:

Some existing systems are **Forex factory [1]**. It keeps us updated about trading news, old and new, with a calendar function that specifies the news of specific date in an instant. It keeps the visitors updated about what's new in the market, but Trading Track specializes in not only news but also several other options are there to provide a hospitable environment for the visitors. **Trading view [2]** tracks the current prices of markets. It shows the prices of charts and share ideas and opinions of people are shared on this website, it not a calculated idea rather a rough estimate of potential ideas that are up for further up taking. **My Fx Book [3]** shows news of stocks and crypto. It also has a calendar function, we can calculate, rebate trades, the rate of pips can also be calculated, how much profit can be gained through how much pip input, can easily be calculated. **Exness [4]** is a trading broker, it explains how trading is done and also displays the prices of live charts. After a careful consideration, it was decided that Trading track is going to have a merged functionality of all these and additional AI features for trade analysis and price prediction.

3. Problem Statement:

What is the most encountered and recurrent issue faced by the aspiring traders? For starters there is not a single existing website on the internet that uses AI techniques to give suitable suggestions by gathering and merging the historical and current data. We commonly see different websites that excel in either giving news or fundamental and technical analysis but a platform that lets you take note of all the important aspects in one place, is yet to be seen. Users commonly take notes for fundamental analysis and technical analysis from different websites and then proceed to take notes of historical and current data from different websites and it causes quite a hassle.

4. Problem Solution:

We are here with an ultimate solution, as our website offers the jackpot for users that work in trading. Our website is like a buffet or "All under one roof" for aspiring as well as professional traders. We propose a unique and fulfilling solution to the problem faced by many traders these days. We are creating an application for traders that keeps tracks on all the activities that matter for traders. It makes decision making considerably easier for the aspiring traders as they also learn about the current and past trends at the same time at the same website, without having to go around

looking for desired information. Users can note the news, fundamental, and technical analysis from our website in a matter of seconds.

5. Advantages/Benefits of proposed system:

- Secure and accurate
- Risk to reward ratio calculations
- Responsive website
- User friendly Interface
- Absolutely free
- AI features for price prediction
- Community ideas available
- Creating better traders
- All functionalities under one roof for traders

6. Scope:

Our Project provides the functionalities of having news, technical and fundamental analysis, help in making suitable decisions, historical and current data of prices. It helps traders in taking trading decisions as it uses AI techniques to mesh the historical and current data.

Modules of the project:

- **Signup/Login:**
  Firstly, the users have to sign up with some compulsory details and then they can enjoy seamless experience. Users can log in and log out whenever they desire. Their details are safe and secure and not shared with any third party. We value all our users and we want them to be uniquely identified. We are planning a premium version of our platform after some time and we are definitely going to offer our pioneer users some discounts.
- **News:**
  News play a vital role in the whole trading process. A good trader always knows what is going on, what the current trends are. News are essential for traders as the positive news normally causes individuals to buy stocks. A good earnings report, a corporate acquisition, an announcement of a new product, and positive economic indicators all translate into buying pressure and an increase in stock prices. Traders always trade in currencies that are deeply liquid as they tightest spreads and that allows the user to keep low transaction cost. That's how news play an essential role in the daily life of a trader. Our news section provides the current news as well as historical news for a deep insight.
- **Brokers:**
  Brokers tend to ensure a smooth trading experience between an exchange and an investor. Our module will ensure smooth transaction between the investor and the exchange.

- **Technical Analysis:**
  We intend to use AI technique to merge the historical and current news in the market, to predict a suitable suggestion for the user. It helps the users to navigate the gap between intrinsic value and market price. It can prove to be a key component in the stock market, as the traders can use it to pick good stock to trade and predict the future prices. Entry and exit points are of utmost importance in trading and our technical analysis can help users in getting good returns.
- **Fundamental Analysis**
  In fundamental analysis, we are going to take help from the news in predicting future price movement and whether a stock is overvalued or undervalued. Our fundamental analysis is going the give recommendation on whether the user should buy this stock or not, and it is all determined with the help of news.

7. Software Methodology

For the development of this project, we are going to use agile software development methodology. We chose this as our intended software methodology because of various reasons but the primary one would definitely be the minimum risk. As it is a stock market place, we can see predicted changes in functionalities in quick successions and agile development methodology helps us in minimizing bugs, cost overruns, and changing requirements while adding new functionalities. We can expect frequent incremental improvements. It also improves efficiency as it helps in finding and fixing defects pretty quickly.

8. Tools and Technologies

	Technologies	**Version**
	React Js	ES6
	MongoDB	5.0
Tools	Express Js	4.18.0
And	Node Js	18
Technologies	Material UI	2013
	Tailwind CSS	V3.0
	Github	3.6.1
	Tools	**Version**
	VS Code	1.71
	MongoDB Atlas	5.0
	MongoDB Compass	1.33

9. Concepts:

AI Techniques:
We are going to use AI techniques for merging historical and current data. After that, it calculates the appropriate decisions and we are going to learn some new AI techniques.

MERN Stack:
For state management we are going to use React js and it is basically the talk of the town these days. Front end and Backend are going to be completed using MERN Stack concepts, so we are going to learn them while practicing.

Financial Calculations:
As the intended users are traders, the calculations definitely need to be spot on. We are going to learn some high level financial calculations in this project.
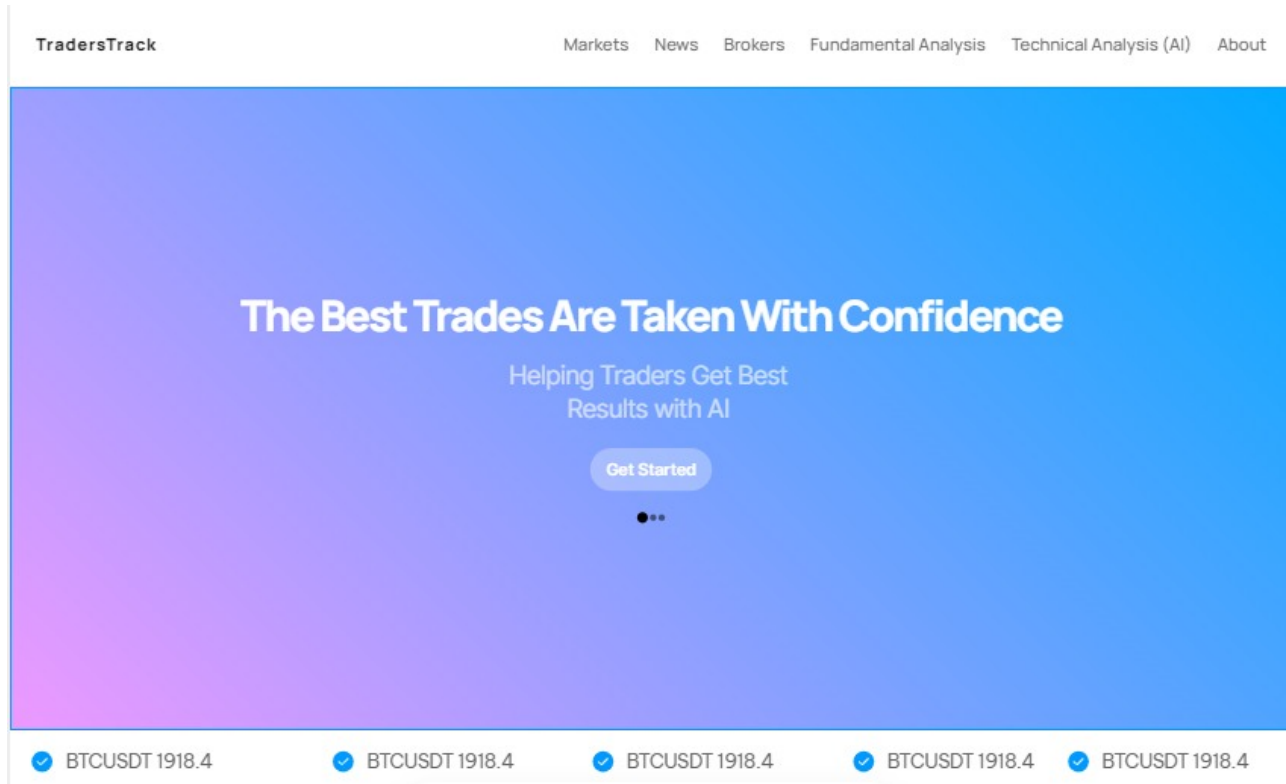
10. Intended Users

Our project is not limited to specific range of people, any person can come and learn about trading as well as enjoy the stuff that they like to ponder about. Our News section can be viewed by any person interested in watching news in the stock market context.

If we do have to generalize our intended users, traders would be the potential visitors of our website for the most part. This project was created as a potential solution for the problems faced by traders and if they know the right place to look, they might end up being amazed and in no time, the website will take off to the next level.

11. Mockups
Landing Page:

News Page:
Provides news on various topics such as stocks, crypto, forex and many more.

News flow

Follow what's happening with real-time updates from around the world.

All   Stocks   Crypto   Forex   Indices   Futures   Bonds   World economy

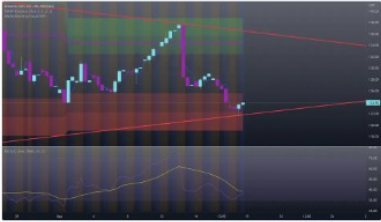|		
9 minutes ago · Reuters	28 minutes ago · NewsBTC	34 minutes ago · Reuters
Cracked iPhone back glass? Some new models much easier to fix, firm finds	**Investment Opportunity with new Cryptocurrency Miners**	**Top manager Vanguard bullish on U.S. Treasuries as Fed's hikes near peak**
36 minutes ago · Reuters	38 minutes ago · InvestorPlace	38 minutes ago · Reuters
Thyssenkrupp: markets unfavourable but IPO remains preferred option for Nucera	**5 Investors Betting Big on Amprius (AMPX) Stock**	**Russia's Gazprom to replace sterling-denominated bonds**
41 minutes ago · Reuters	43 minutes ago · Crypto Briefing	1 hour ago · Reuters
PRIMESECU-Communication to shareholders as per Reg 30	**Treasury Seeks Public Comment on Crypto's Role in Financial Crime**	**Wall Street slips on rate-hike jitters**

Fundamental Analysis:
Experienced traders share their analysis on the ups and downs in the stock market and an open panel for potential openings in the close future.

Stock Predictions — USA

Videos only

AMZN Bounce
AMZN, 240

Steversteves PRO   22 hours ago

Hey everyone, Thought I would post an AMZN idea because it is on my watch/playlist. I don't trade AMZN that much so I don't have anything overly advanced mapped out on it, aside from weekly, monthly and daily math ranges. If we look at the...

18   6

The Cancerous Tesla Tumor
TSLA, 1D SHORT

bowtrix PRO+   17 hours ago

Hello friends. A year ago, the market had many Tumors. Tesla, Bitcoin, GameStop, AMC, and others. These tumors wasted capital on useless endeavors and enriched some of the most terrible and disgusting people alive today. The people at the to...

17   6

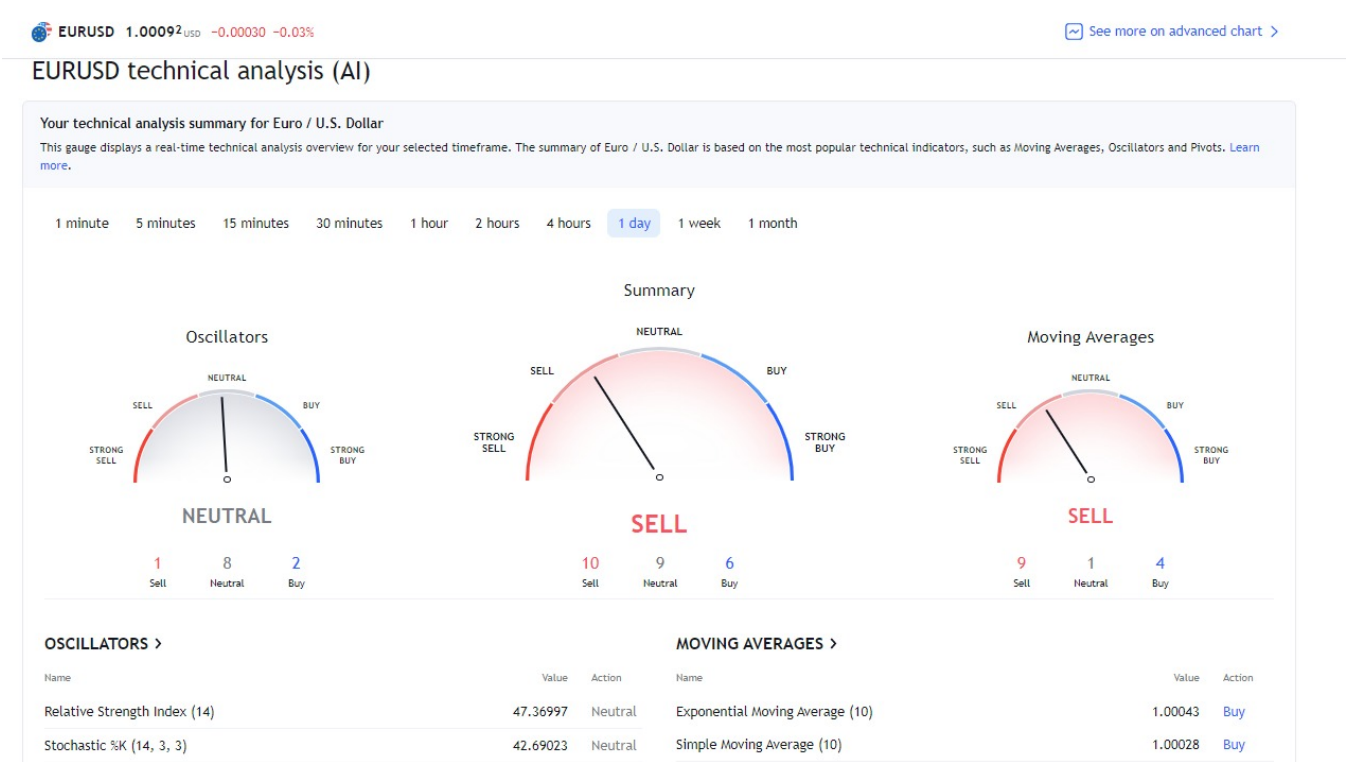**SPY**
SPY, 1W SHORT

DavesTrends   9 hours ago

Hi Traders Next step on SPY probably 360-361. Waiting FOMC/FED
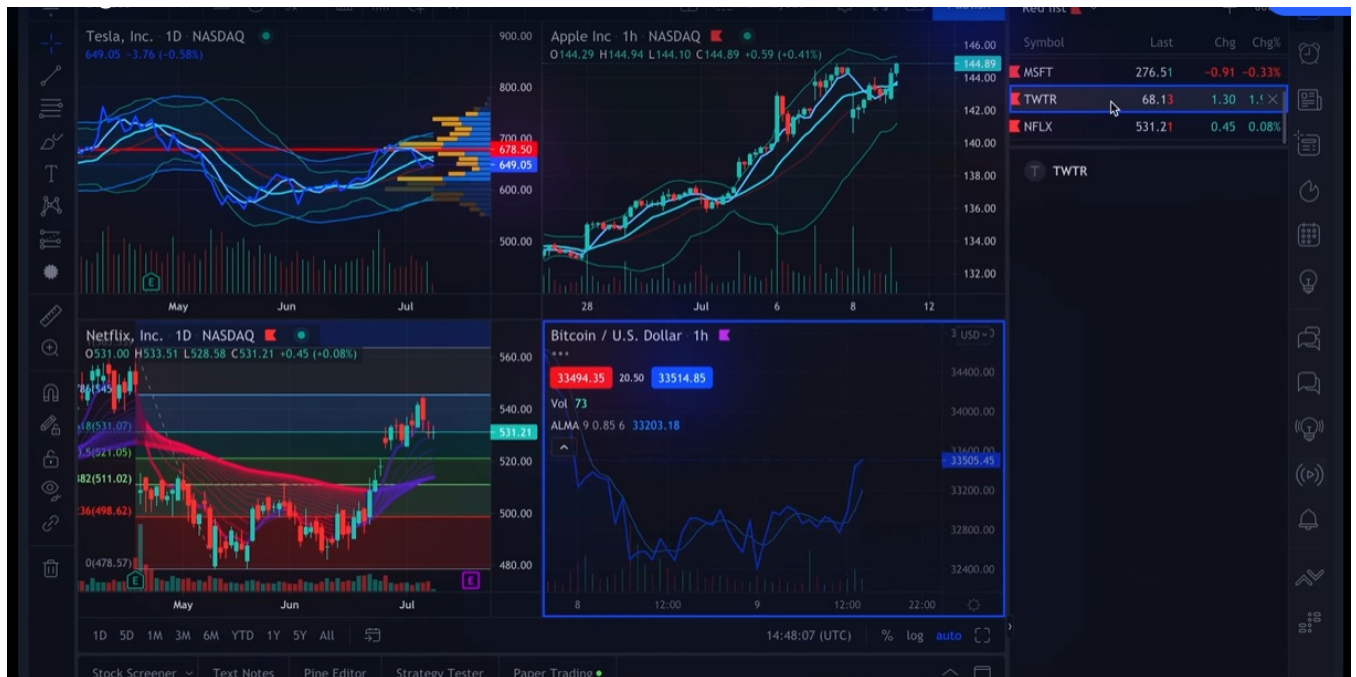
5   2

Technical Analysis:
Uses AI technique and takes historical and current price to predict the future value of stock.
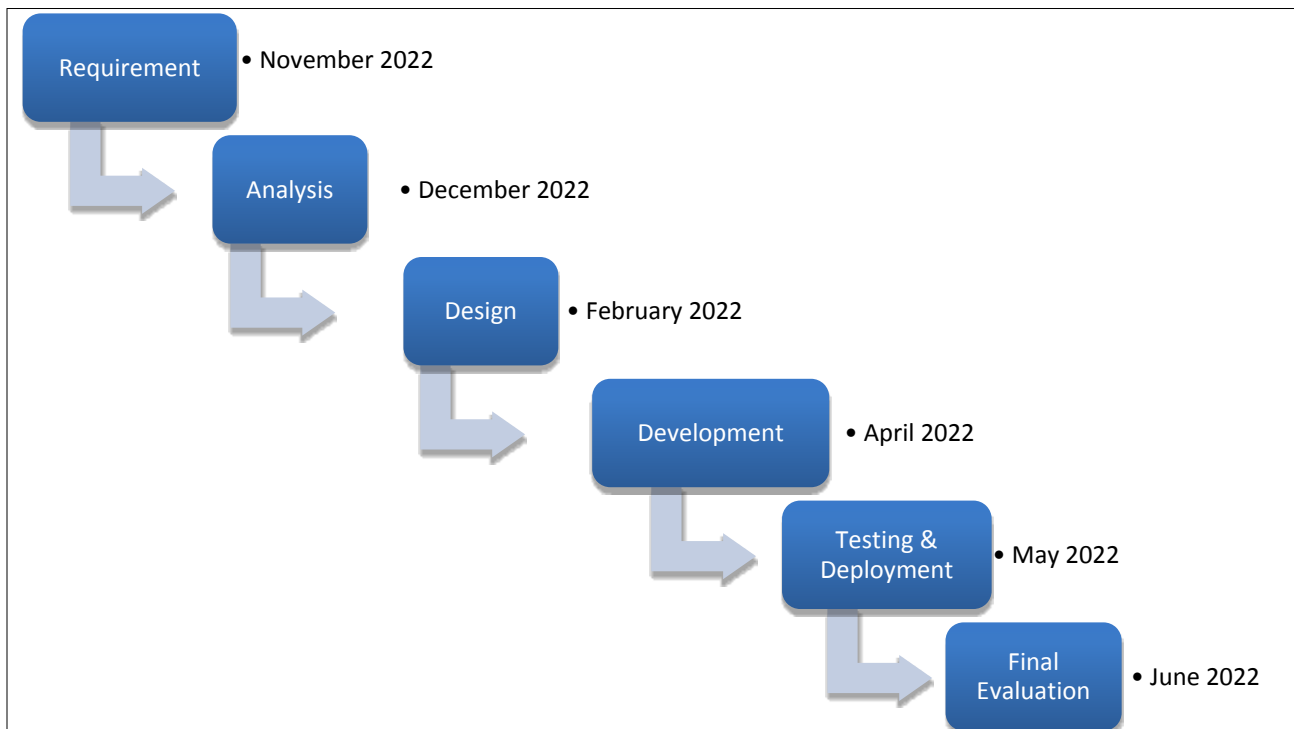
Graphs & Charts:

Traders feel comfortable looking at graphs and it makes them feel at ease. It creates a working atmosphere for them and gets them going. These graphs and chart patterns are used for technical analysis.

12. Timeline

- **Requirement** • November 2022
- **Analysis** • December 2022
- **Design** • February 2022
- **Development** • April 2022
- **Testing & Deployment** • May 2022
- **Final Evaluation** • June 2022

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13. Conclusion

Our website offers the jackpot for users that love trading. Our website is like a buffet or "All under one roof" for professional as well as aspiring traders. We think our project has the potential to top the traders market and become the most time saving and efficient website for its users. Its aesthetic design and spot on functionalities are not ones to be overlooked. It will be the ACE for traders.

14. References

[1]   "Forex markets for the Smart Money.," Forex Factory. [Online]. Available: https://www.forexfactory.com/.

[2]   TradingView, "Track all markets," TradingView. [Online]. Available: https://www.tradingview.com/.

[3]   "Forex trading tools for forex traders," Forex Trading tools for Forex traders. [Online]. Available: https://www.myfxbook.com/.

[4]   "Online trading: Trade cfds on Crypto, Forex & More with exness," Online Trading | Trade CFDs on Crypto, Forex & more with Exness. [Online]. Available: https://www.exness.com/.

Evaluation Page

Evaluator 1 Comments:_____
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Signatures

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Evaluator 2 Comments:_____
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Project Coordinator Comments_____
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